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Psychological aspects of architecture and urban planning in crime prevention

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Abstract: Today over a half of the world's population lives in cities, where dense building surrounds the individual and makes architecture an integral part of one's life. Although the influence of architecture and urban planning on human functioning and psyche seems obvious, research on this subject began to be carried out, just over half a century ago. Therefore, this article was devoted to the presentation of information on the relationship between the manner of shaping land development plans and buildings, aiming at providing the safety and comfort of urban residents. The focus was on the aspect of density and construction height, urban greenery solutions and ways of arranging space, meant to improve and humanize housing conditions, to care for the psyche and physical health of city residents.

Key words: psychology in architecture, architecture's psychology, man and building, man and urbanism, contemporary psychology, contemporary architecture

Introduction

At the turn of the XIX and XX century European architecture became strongly influenced by modernism, a trend rejecting historicism and ornament for economy and functionality. After the II world war ideas and projects of the French architect Le Corbusier, the ideas of Bauhaus school, the works of Werkbund as well as the activity of an American architect Mies van der Rohe (all propagating the primacy of function over form) became very popular in Eastern Europe. While whole cities were destroyed in the mayhem of war, the possibility of building cheaply and quickly was spotted and popularized by the communistic propaganda. Corbusiers idea of *machine-à-habiter*, or residential housing with minimized inhabitable surface and height, was enough to meet the needs of the society at the time [1]. (Fig. 1) Although socialistic architecture and urban planning was influenced by modernism, many of its key principles, such as freeing the space at ground level by raising the building up on pillars, providing residents with access to gardens and other meeting-places, as well as spaces dedicated for local services, were completely ignored by the Eastern Bloc regime. Within the framework of the centrally planned economy, architecture was created schematically, in hurry and on a mass scale, resulting in complete negligence of the psyche of its users. First studies on this topic began to appear only at the turn of the 1950s and 1960s.

It is currently considered common knowledge, that both architecture and urban planning have a considerable influence on human behaviour. Studies show [3] that even the colour of the walls in a room, in which one is staying, can change not only the mood of the user, but also decrease or increase the efficiency with tasks which they perform. Ceiling height modulates the attitude towards a assignment and the ability to process information [2].

Fig. 1. Original modernism – villas designed by Le Corbusier in Pesac, France. [Own photographs]
Pierwotny modernizm – wille projektu Le Corbusiera w miejscowości Pesac, Francja. [Fot. autorzy]

Architectural features and their impact on residents' safety

Inhabitants of high apartment blocks feel more vulnerable to crime than residents of other types of buildings. [4] The concern is, unfortunately, confirmed by statistics – research made by Oscar Newman [5] indicates that the height of the building is positively correlated with the number of crimes committed in it. However, this correlation does not specify a cause-and-effect relationship between these two variables. Newman's study was conducted in the 1970s in the United States of America when high-risers were often inhabited by people with very low income. Additionally, many of them were parts of social housing projects.[6]

Fig. 2. Modernism in Wroclaw, Poland, housing estate by designed by Jadwiga Grabowska-Hawrylak – humanization of buildings in high prefabricated buildings – technical condition from before renovation (beginning in 2015). [Own photographs]
Modernizm we Wrocławiu, Polska, osiedle wg. proj. Jadwigi Grabowskiej–Hawrylak – humanizacja zabudowy w wysokich obiektach prefabrykowanych – stan techniczny z przed remontu (początek w 2015 r.). [Fot. autorzy]

In order to dispel the doubts Sommer [7] conducted a study comparing the number of crimes *per capita* among the students inhabiting high, multi-floor and lower dormitories. Limiting the research sample to students living on the same campus ruled out the socio-economic factor. Although most of the crimes committed on the campus during the observation were soft, their number was almost two times higher in the high buildings.

According to Katyal [9] the cause of increased crime rates in high residential buildings may be the inhibitors' indifference towards actions taking place in corridors and other common areas, caused by anonymity. It should also be noted that many of the prefabricated facilities located in Europe and the United States, despite good architectural solutions, are currently in a bad technical condition, which in many aspects has a negative impact on residents and the city panorama. (Fig. 2)
Interestingly enough, low intensity of housing may prove just as dangerous as high.[9] The mechanism behind this phenomena is as follows: situating ones' residential unit far from others ,prevents the potential neighbours from observing the unit, although this may seem very attractive, it is the watchful adjacent inhabitants, that provide natural and efficient equivalent to monitoring.

Among the elements, which are not to be omitted in urban planning directed at safety are parks. Their presence in the immediate surroundings of the residential area might increase the probability of crime occurrence, especially of sexual offences, such as acts of exhibitionism. [10] Despite the high pressure put on increasing the amount of greenery in the urban areas, what is rarely discussed is how to design it in the aspect of safety. According to Thani, Hashim and Ismali [8] a safe park should be narrow enough, so that the inhabitants of the nearby buildings can have the possibility to observe its interior. For the same reason it is crucial to maintain illumination and to control the state of flora, preventing it from overgrowing which could lead to formation of natural hideouts for potential criminals. (Fit. 3)

Fig. 3. The park named after Prof. Tołpa in Wrocław, Poland – proximity of a narrow triangle of greenery with public and residential buildings, along with good night-time lighting, ensure the safety of users. [Own photograph]

Park Prof. Tołpy we Wrocławiu, Polska – sąsiedztwo wąskiego trójkąta zieleni z zabudową użyteczności publicznej i mieszkaniową, wraz z dobrym, nocnym doświetleniem, zapewniają bezpieczeństwo użytkownikom. [Fot. autorzy]

Defensible space

"Defensible space" is a term first used in 1972 as a concept of organisation and optimalization of urban composition in order to reduce crime. Its author, Oscar Newman, analysed the police statistics and came to a conclusion, that most crimes and acts of vandalism occur in densely populated areas, where it is easier to stay anonymous and where the inhabitants do not form a closely cooperating community. Their sense of responsibility for the security of their own territory blurs due to the size of both their group and the area. [11]

Having considered most of the possible factors, Newman extracted, that positively affect the safety on the given territory and presence of which makes the "defensible space" [12]:

1. Territoriality – the physical elements that define the borders of the property, including: facades of the buildings, fences, hedges, walls, trees, gates and elements of small architecture. In addition to the main function (disabling strangers from entering) it also increases the sense of territoriality among the inhabitant, which makes them more security-orientated.

2. Surveillance – the ability to observe the territory without interrupting everyday activities. It consists of: permanent external illumination, windows overlooking the whole area, CCTV and videophones. Lack of tall trees and shrubs opposite to the glazing is also essential.
3. Image connected to maintaining tidiness in common areas. Elements such as: new or regularly restored elements of small architecture (benches, swings, litter bins) regularly re-painted elevations, frequent tidying and signs informing about entering a private area contribute to convincing the potential intruders that they are in a well-kept, and therefore well-protected area.
4. Milieu – additional elements increasing the security, such as: dense traffic in the area, close proximity to a police station or other well-guarded buildings. (Fig. 4)

Fig. 4. A housing estate with a "defensive space" – Verde 25, Turin, Italy, clearly defined architectural and urban identity of the place outside and inside the complex. [Own photographs]

Osiedle z „przestrzenią obronną" – Verde 25, Turyn, Włochy, wyraźnie określona architektoniczno-urbanistyczna tożsamość miejsca na zewnątrz i wewnątrz zespołu. [Fot. autorzy]

In some publications "image" and "milieu" are merged into one category – "symbolic barriers" [13]. It is so because their functions are mostly psychological and there are no exact criteria enabling distinction between them.

A great example of a housing unit built just as the opposite to "defensible space" is Trellic Tower, New Kensington, London. [22] The building won many design awards and ideally matched modernist standards – 175 apartments were located on 31 floors with many common areas. However, these spaces were not supervised in any way, and due to the huge number of inhabitants, the sense of territoriality was minimal. As a result of budget cuts, Newman's idea of an "image" was also not taken care of, numerous acts of vandalism did not meet any response. This provoked next doings, and by such vicious circle led to the situation in which the Londoners began calling the Trellic Tower, the "terror tower". The situation had only been stabilized when the residents took control of the area, created a monitoring system and hired 24-hour security.

Risk Terrain Modelling

Risk Terrain Modelling is a system developed by Joel Caplan and Leslie Kennedy of Rutgers University and its main function is selecting areas particularly exposed to crime [12]. The authors concluded that some urban, organizational and spatial configurations are more conductive to crime-committing than other. The mechanism behind this phenomenon is analogous to how playgrounds affect children's behaviour making them more spirited, as they contain many devices and spatial elements useful for playing. [15] From the studies conducted by Caplan and Kennedy, it appears that many factors, for example:

- co-occurence of:
  - gas stations,

- liquer stores,
- night clubs,
- deserted buildings,

- distance between buildings,
- streets width,
- illumination,
- type and height of trees and shrubs,
- may influence the number of crimes committed at a given territory [14]. (Fig. 5)

Fig. 5. Athens, Greece – city centre, residential development with abandoned service premises, with visible acts of vandalism on the façades. [Own photographs]

Ateny, Grecja – centrum miasta, zabudowa mieszkaniowa z opuszczonymi lokalami usługowymi, z widocznymi na fasadach aktami wandalizmu. [Fot. autorzy]

Based on the gathered data, the authors created a computer program (Risk Terrain Modeling Diagnostics or RTMDx), which performs an automatic analysis of high-risk areas occurrence. The program user must first asses what types of risk factors may occur in the examined territory, contacting the authorities and social workers is very helpful at this point. Having received the above mentioned data and the figures on the location and timing of past crimes, the program performs a statistical analysis reflecting which factors and to what extent, correlate with the frequency and type of crimes committed. Based on that information, the program is later able to calculate not only which areas are more vulnerable to crime, but also which types of felony is most likely to occur there.

Results of a programme conducted in the USA and co-financed by the Ministry of Juistice in which the authors of RTMDx worked with police and local authorities, to reduce crime in specific areas, provide evidence for the effectiveness. Its description should help explain the principles of the operation of the program [16] that is why we decided to illustrate a number of cases included in the project:

1. In Colorado Spring after analysing 19 potential risk-factors for the crime of car theft, using the RTMDx, 6 important variables were identified: multifamily housing units, foreclosures, parks, restaurants, commercial zones and the frequency of disorder calls for service by the inhabitants. Having assessed the potential high-risk areas, an increase in the police activity as well as in the number of community meetings designated to instruct residents towards appropriate response to crime were applied. As a result theft-car rates dropped by 33% compared to a control area, where no intervention was made.
2. In Newark among the risk-factors for gun violence 11 were found to be statistically significant (including the proximity of: foreclosures, restaurants, gas stations, stores, take-out restaurants, bars and liquer stores). As a part of intervention the number of police patrols in the area had been increased and the police officers were told to visit local businesses during duty in order to gather information and make their presence noticeable. As a result of the analysis-based intervention gun violence dropped by 35% in the experimental area in comparison to the control one.

3. Among statistically significant risk factors for gun violence identified in Chicago was the proximity of: foreclosure, gas stations, liqueur stores, schools, bars and bus stops. For reasons beyond the researchers control the intervention in Chicago didn't take place. However, this part of the study also provides evidence for the effectiveness of RTM, as only 15% of the territory covered by the program was identified as high-risk areas and yet in the months following the experiment over 56% of gun violence took place within them.

Solutions adapted to specific conditions

The methods of crime prevention through architecture and urban planning mentioned in the previous points describe system solutions which are designed to be universal. However, examples of effective criminal activity reduction using made to measure architectonical and structural changes also exist.

Zavorski describes an example of such an intervention in a housing development in Hartford, USA, which struggled with a great number of violent crimes [18]. Many of its inhabitants were living below the poverty threshold and among them were criminals, making a leaving as drug dealers. Most of the offenses, especially the violent ones, took place near the main street connecting two housing units. Local authorities concluded that impeding the escape of potential offenders by setting a barrier in the middle of the road, dividing it into two dead-end streets, might help in eliminating the problem.

Data collected 15 months before and 15 months after raising the barrier show that the method succeeded – number of violent crimes dropped by 33% in the street of the intervention and 50% in the adjacent streets. At the same time the number of drug-related offenses increased by 100% – the author speculates, that the reason for this might have been the transfer of drug dealers, from the intervention street to the nearby streets, however this inferences seems inconsistent, as the number of drug-related offenses hasn't dropped on the main street.

Another city that has been grappling with the growing number of violent crime for years is Chicago. In 2015, the concept of reducing this problem by applying urban changes was presented at the Architecture Biennale by Jeanne Gang. Analysing the style of police station construction over the years, she noticed a tendency to increasingly isolate these buildings from their surroundings, which in her opinion may also translate into the formation of larger interpersonal barriers between residents and the police.

Basing her concept on fire stations, which often (especially in smaller cities) serve as integration centres for local inhabitants, and drawing inspiration from the report of the President's Task Force on 21st Centruy Policing, Gang decided to design a system of police stations that would also fulfil the function of social centres. To achieve this goal, the author proposes creating safe, yet open to all people, recreational zones and various types of sport courts in the territories of stations. The development of the integration of police officers with the local community should increase trust and facilitate cooperation between both groups, resulting in not only increase in effectiveness of detection of criminal acts, but also reducing the popularity of criminal groups among young people. [19]

The first attempt to implement the project took place in the North Lawndale district, where a small basketball court was set up in a part of the parking lot of the police station. Although this is a very small step towards the implementation of Jeanne Gang's idea, both the representatives of the police and the local community declared satisfaction with its effects, and have also agreed to further expand the system. Currently, design works are underway, the culmination of which is to build a public park around the police station in North Lawndale [20].

Summary

Architecture and urban planning influence our daily lives, including safety. Although the principles of "defensible space" developed by Oscar Newman have already found application in both construction law and urban planning practice in many countries [11, 21], they are yet to influence the Polish legal system.

While there is no information yet that RTMDx is being used as a tool for assessing security on architectural projects in the conceptual phase, it seems that such a solution could contribute to the creation of safe housing

estates with minimized risk areas and its implementation at the level of creating plans of spatial development would have the potential to reduce crime in cities.

Despite the existence of several important (largely consistent) theories, the study of the impact of architecture on crime and more generally on the human psyche is still a very young field in which much remains to be discovered.

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Wpływ architektury i urbanistyki na psychikę jako metoda zapobiegania przestępstwom

Streszczenie: Ponad połowa populacji świata żyje obecnie w miastach, gdzie gęsta zabudowa otacza jednostkę i sprawia, że architektura staje się nieodłącznym elementem jej życia. Pomimo, że wpływ architektury i urbanistyki na funkcjonowanie i psychikę człowieka wydaje się być oczywisty, badania na ten temat zaczęto prowadzić zaledwie ponad pół wieku temu. Stąd, niniejszy artykuł poświęcono prezentacji wiadomości na temat relacji pomiędzy sposobem kształtowania planów zagospodarowania terenu i budynków, a bezpieczeństwem i komfortem mieszkańców miast. Skoncentrowano się na aspekcie gęstości i wysokości zabudowy, rozwiązaniach zieleni miejskiej i sposobach urządzania przestrzeni, nakierowanych na poprawę i humanizację warunków mieszkaniowych, celem dbałości o psychikę oraz zdrowie fizyczne mieszkańców miast.

Słowa kluczowe: psychologia w architekturze, psychologia architektury, człowiek a budynek, człowiek a urbanistyka, współczesna psychologia, współczesna architektura

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"Policyjny Dom Zdrowia" (P.D.Z., Policemen's Health Center) as the example of a big sanatorium facility in the valley of the Prut River in the Hutsul region

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Abstract: The article presents the building of State Police Sanatorium in Tatarów in the context of other big buildings with timber structure erected ca. 1930 in the valley of the Prut River in the Hutsul region. Several facilities of this kind were constructed there at that time, with total capacity of over 80 visitors at a time. "Znicz" Railwayman Family Association's guesthouse was commissioned in Tatarów. Tax Officials Society constructed the "Skarbówka" guesthouse in Worochta. In Jaremcze-Jamna, "Gorgany" Health House of the Association of Tax Control Officials of the Republic of Poland began its operations. In mid-1930s, guesthouse for the Association of Ukrainian Teachers was designed in the same town.

Keywords: spa architecture, Hutsul region, State Police Sanatorium, Tatarów

Introduction

The end of the First World War is directly connected with the restoration of state and establishing new reality in all fields of social activity. In 1922, the parliament adopted the act on sanatoria and spa centers, thus providing legal framework for the organization and activity of local holiday resorts [Dziennik 1922]. At that time they were categorized and divided into spa centers, climate stations as well as seaside resorts. The category of public utility sanatorium resort emerged. The towns had the possibility to acquire such status by means of the ordinance of the Council of Ministers upon the order of the Minister of Public Health. The act provided such centers with the privilege of state support. In 1928, basing on the ordinance of the President of the Republic of Poland as of 22.03.1928 [Dziennik 1928] amending the parliamentary act on sanatorium centers as of 1922, Jaremcze and Worochta, together with eleven other sanatorium centers, received the status of public utility sanatorium centers. This fact contributed to the development of neighboring towns and villages, including Tatarów. Several new treatment facilities were constructed there in the 1920s. Some of them are going to be presented below[1].

Numerous trade associations and societies used to emerge in the interwar period, connected with different state institutions or social organizations. Healthcare constituted an important element of their activity. Their members had the opportunity to receive treatment or stay for holidays on preferential conditions in sanatoria and guesthouses owned by such associations. The construction of new buildings was initiated particularly frequently in the second half of the 1920s. The investments were managed centrally or represented a local

1 For many years, the author has been conducting the research on spa architecture in the towns and villages situated in the valley of the upper Prut River in the Hutsul region at the Institute of the History of Architecture and Monument Conservation of Cracow University of Technology, together with the staff from the Institute of Touristic Architecture of the Ivano-Frankivsk National Technical University of Oil and Gas.

character. In the Hutsul region, where buildings with relatively limited capacity prevailed [Czubiński 2008], few big sanatoria or guesthouses were established, so frequently encountered in Western Carpathians. The oldest big sanatorium, erected already before WW1, was Dr. Michalik's facility in Worochta. It was constructed in mid-1930s by the State Sickness Fund. In the same town, the Association of Jewish Academics constructed in the late 1920s a tuberculosis sanatorium. Around 1930, several other facilities began their operations, with the capacity of over 80 visitors at a time. The sanatorium of Policemen's Health Center Association together with "Znicz" Railwayman Family Association's guesthouse were commissioned in Tatarów. Tax Officials Society constructed the "Skarbówka" guesthouse in Worochta. In Jaremcze-Jamna, "Gorgany" Health House of the Association of Tax Control Officials of the Republic of Poland began its operations. In mid-1930s, guesthouse for the Association of Ukrainian Teachers was designed in the same town.

The purpose of the article is to present State Police Sanatorium in Tatarów in the context of other big buildings with timber structure. It is necessary to emphasize that the only building representing this group until current times is the said police sanatorium.

Policemen's Health Center in Tatarów

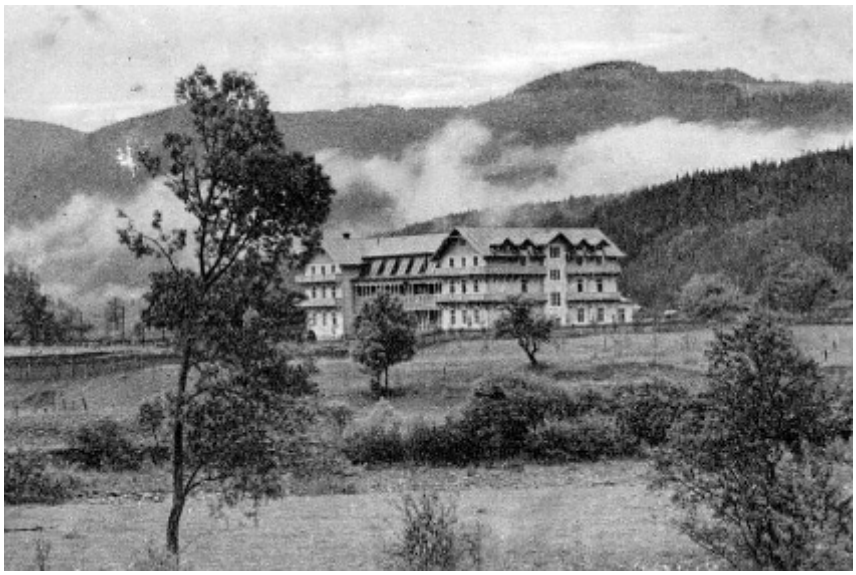

Fig. 1. Tatarów, Policemen's Health Center, 1930s Postcard from author's own collection.

Tatarów, Policyjny Dom Zdrowia, lata 30. XX. w. Karta pocztowa w zbiorach autora.

Fig. 2. Tatarów, Policemen's Health Center, ca. 1930 Postcard from author's own collection.

Tatarów, Policyjny Dom Zdrowia, około 1930 r. Karta pocztowa w zbiorach autora.

Fig. 3. Tatarów, Policemen's Health Center, ca. 1930 Archival photo [AAD-ZZS, sign. 112].

Tatarów, Policyjny Dom Zdrowia, około 1930 r. Fotografia archiwalna [AAD-ZZS, sygn. 112].

The sanatorium is situated in the Northern part of the town of Tatarów, in a vast park, on flat land area over the Prut River escarpment (Photo 1–4). This is a multi-level wooden building, covered with a gable roof and based on the elongated H-shaped rectangular plan. Within the structure of the building, in its Southern and Northern façades, three-level side avant-corpses can be found. They are covered with gable roofs including dormers. Mansard roof is present over the two-level central section, with deep windows situated in its lower parts. Balconies were designed on the first and second level of the building. Entrances were located on the Western and Eastern façade. The building has the ground floor and the first floor in its central part, with additional usable level in the attic. At the level of the first floor within the Southern and Northern façade, continuous balcony can be found, with pillars supporting roof eaves, considerable in size. Railings and brackets for the eaves and balconies are ornamented with regional carpentry patterns. The building was initially plastered in white. The plaster was removed after the war and its walls were covered with vertically arranged boards. Two-level residential and utility wing was added to the building after the war from the North, together with the dining room in the section consisting only of the ground floor. There are numerous objects erected in different periods on the area surrounding the building. Some of them were constructed before 1939, as it was for example the case with the summer dining room or residential building with classicizing portico. The complex has been preserved until today in a relatively good condition and since 1990s it serves the function of the sanatorium of the Ukrainian Ministry of Internal Affairs (Photo 5).

Fig. 4. Tatarów. Policemen's Health Center, 1930s Archival photo from author's own collection.

Tatarów. Policyjny Dom Zdrowia, lata 30. XX. w. Fotografia archiwalna w zbiorach autora.

Fig. 5. Tatarów. Policemen's Health Center, 2008. Photo: Jacek Czubiński.

Tatarów. Policyjny Dom Zdrowia, 2008 r. Fot.: Jacek Czubiński.

In the interwar period, full name of the facility was worded as follows: The Sanatorium of Policemen's Health Center Association in Tatarów. The association was established on June 28th 1924, during the First General Meeting of the delegates of District Police Headquarters [Gazeta 1924]. Its statute was approved by the Minister of Internal Affairs on 23.02.1924 [Stowarzyszenie, p. 3] and amended in 1926 [Rocznik, p.59]. Main function of the association's activity was to: *"provide the policemen with aid through establishing and maintaining health centers, houses for convalescents and relaxation facilities, sanatoria and similar establishments where a sick policeman could find appropriate care and efficient support"* [Stowarzyszenie, p. 4]. The association used treatment centers in: Busko Zdrój, Druskienniki, Otwock, Tatarów and Zakopane. It also owned property and plots for construction purposes among others in: Bliżyn, Duboja, Ponary, Toruń, Warsaw, Wejherowo and Zaklików. The construction of sanatoria in Orłowo, Muszyna and Wejherowo was planned [Stowarzyszenie, p. 4–6]. Buildings were also leased or rooms rented in guesthouses situated in such cities and towns as Częstochowa, Krynica, Rabka or Truskawiec [AAD-KGPP, 1030]. This is how the property of the Association was presented in 1938: *"At the beginning of the fourteenth year of its functioning, the Association holds the property estimated realistically*

at 1.5 million zlotys, consisting of one hospital, 3 sanatoria, 1 guesthouse, 2 commercial houses and several plots of land. About 3000 visitors enjoyed their stay in the Association's facilities last year"[2].

The construction of the sanatorium in Tatarów was initiated in 1925, when *"The police of the Stanisławów voivodeship organized in a self-help unit purchased the parcel in Tatarów and began the construction of a summer facility there. The started construction collapsed as a result of the errors made, and insufficient funds forced the Stanisławów self-help unit to resign from its reconstruction and the started project was handed over to P.D.Z. and they became P.D.Z. members themselves"*[3]. The building began to serve a new function – from the summer house it was transformed into a tuberculosis sanatorium[4]. Finishing works began in March 1928. After numerous difficulties caused by unreliable contractors, first 80 visitors were received on May 1st 1929. The facility was officially commissioned on 15.01.1930 [Stowarzyszenie, p. 9]. On August 28th 1930, the sanatorium was provided by the Ministry of Health with the status of sanatorium for treating lung diseases, including tuberculosis[5]. After it began its operations, there were still the works connected with arranging the surroundings of the building to be performed, together with purchasing the missing equipment. The construction of a separate administrative building was also planned, including the flats for doctors and other staff, as well as stables, a cowshed and a pigsty together with an ice storing facility. Further works were performed in the years to come. The building was protected against flooding with the water coming down from the mountains thanks to the drainage ditches dug[6]. In order to ensure the access to the facility, the bridge over the Prut River was constructed in cooperation with Railway Sanatorium in Tatarów[7]. In 1933 final borders of the plot were determined and about 300 trees were planted within the fenced area, thus giving it the character of a park.*8*

As a result, a modern facility was constructed in which *"the majority of rooms have the windows facing South and South-East, with only a few of them facing West. Roofed verandas can be found on the ground floor and the first floor, making it possible for the sick to relax outside also when it's raining. The entire building has electric lighting, central heating and the majority of rooms have running cold and hot water, each level has its toilets and bathrooms connected to the sewage network. The sanatorium has its doctor's study, a big dining hall (with a radio loudspeaker and a gramophone), a common room and its own library. It is equipped with an X-ray machine for scans, quartz lamps, mobile laboratory for the analysis of sputum, urine, stomach content etc. as well as with a first aid kit containing ready-made drugs. What is more, water and steam sterilizer for dishes is located by the exemplarily equipped kitchen, together with a sterilizer for spittoons in a separate room. The linen is washed in a mechanical laundry"* [Stowarzyszenie 1935, p. 38].

In total there were 66 rooms in the building, including 41 serving residential purposes and having the capacity of about 85 guests[9]. 225 patients were received in the year 1930. In the following years this number oscillated from 332 to 444 persons (in 1931 – 388, 1932 – 296, 1933 – 405, 1934 – 444, 1935 – 332)[10]. The analysis of this data shows that the capacity of the sanatorium was used in maximum 50 percent. To compare: in the facility in Zakopane, this ratio amounted from 53 to 72%, in Otwock 75 – 95%, in Busko over 100% and in Druskienniki between 20 and 35%.

In 1930, the attendance would reach about 65 visitors in the summer period. In the autumn hardly anybody visited the facility, as a result of which the Board of the Association was considering, a resolution had even been adopted in this field and then cancelled, to close the facility and dismiss its staff by February 28th 1931[11]. In the winter of 1931 there were on average 55 visitors a month in the sanatorium, 74 from April to September and 20 patients in the autumn. Summer and winter camps for policemen's children were also organized in the building. For example in 1933, after the break lasting from November 1st to December 19th, a group consisting

2 Leaflet "Projektowane Sanatorium P.D.Z. w Otwocku" (*Planned P.D.Z. sanatorium in Otwock*), 1938 [AAD-KGPP, sign. 2114].
3 Report from the activity of the Board of the P.D.Z. Association 1928–1929 [AAD-ZZS, sign. 112].
4 It was impossible to determine the name of the designer of the facility at the current stage of research.
5 Report from the activity of the Board of the P.D.Z. Association for the year 1931 [AAD-ZZS, sign. 112].
6 Ibidem.
7 Revision Commission Protocol number 37 as of 12.10.1932 [AAD-ZZS, sign. 114].
8 Report from the activity of the Board of the P.D.Z. Association for the year 1931 [AAD-ZZS, sign. 112].
9 Revision Commission Protocol number 11 as of 6/7.10.1930 [AAD-ZZS, sign. 114].
10 Presented data comes from the Reports of the P/D/Z Board for the years: 1928, 1929, 1933, 1934, 1935 [AAD-ZZS, sign. 112].
11 Report from the activity of the Board of the P.D.Z. Association for the year 1930 [AAD-ZZS, sign. 112].

of 100 state policemen's children was received. It was finally decided for all-year operations of the facility, with the break from November 1st to mid-December used for maintenance works.

Treatment provided in the sanatorium consisted in *"applying for the majority of the ill the rest in the open air, together with appropriate nutrition and pharmaceuticals in the form of medicines and injections. A lot of them, mainly children, were exposed to the light of quartz lamps if the exposure to sunlight was impossible"*[12] Patients with advanced tuberculosis were not accepted by the facility. Sputum-positive patients, after the diagnosis being made during medical examination, were directed to P.D.Z. sanatoria in Zakopane or Otwock[13].

The price for one day of stay in February and March as well as from September to December for those who held doctor's referral amounted to 2.25 zlotys and in 1935 it was reduced to 1.75. Patients without such referral paid 4.0 zlotys and 3.5 zlotys respectively[14].

"Znicz" Railwayman Family Association's guesthouse in Tatarów

Fig. 6. Tatarów, "Znicz" Railwayman Family Association's guesthouse, 1930s Postcard from author's own collection.

Tatarów, Dom Rodzin Kolejowych „Znicz", lata 30. XX. w. Karta pocztowa w zbiorach autora.

Fig. 7. Tatarów, "Znicz" Railwayman Family Association's guesthouse, 1930 [Tygodnik 1930].

Tatarów, Dom Rodzin Kolejowych „Znicz", 1930 r. [Tygodnik 1930].

Exact date of the design and construction of "Znicz" Railwayman Family Association's guesthouse remains unknown. Designer's name was not discovered either. The building was for sure in operation in September 1930[15]. It was situated on the Prut River escarpment, at a small distance from the previously described policemen's sanatorium. It was a two-level building with a stone plinth with transom structure of timber walls (Photos 6–7). Straight cuboid construction narrowed in its central part, forming two broad side avant-corpses. It was covered with a hip roof including small dormers. Main entrance was located from the side of the river in the Western façade. It was accessible from a big terrace and emphasized with a porch portico. Additional entrances accentuated by porches with stone stairs leveling the plinth height were formed in the axis of the façade of side avant-corpses. The façades were plastered in white. The details of porches and balcony railings referred to regional motifs. The building was probably destroyed during the Second World War. A number of guesthouses and residential buildings were constructed in its place in the recent years.

12 Report from the activity of the Board of the P.D.Z. Association for the year 1935 [AAD-ZZS, sign. 115].

13 Ibidem.

14 Circular number 15. To the Delegates of the P.D.Z Association from the year 1935 [AAD-KGPP, sign. 2115].

15 Date on the archival photo from the farewell ball in 1930. Author's collections.

"Skarbówka" guesthouse in Worochta

Fig. 8. Worochta, "Skarbówka" State Officials Society sanatorium, 1930s Postcard from author's own collection.

Worochta, sanatorium Towarzystwa Urzędników Państwowych „Skarbówka" lata 30. XX. w. Karta pocztowa w zbiorach autora.

Fig. 9. Worochta, "Skarbówka" State Officials Society sanatorium, 1930s Postcard from author's own collection.

Worochta, sanatorium Towarzystwa Urzędników Państwowych „Skarbówka" lata 30. XX. w. Karta pocztowa w zbiorach autora.

On the hill, in the North-Eastern direction from the railway station in Worochta, a big sanatorium of the Association of State Officials with university degree was situated, including 60 rooms and called "Skarbówka" [Światowid 1929]. Architect Marian Aleksander Nikodemowicz from Lviv [PSB, 1978] was the designer of this timber object, visually dominating the center of the town. Its construction finished in 1929 [Ilustrowany 1929]. The plan was based on a rectangle, with the entrance within the Northern façade (Photo 8–9). This three-level object was covered by a steep roof with dormers and high mansards with pointed gables. The ground floor and first floor around the entire building were surrounded by porch galleries, supported on pillars with struts. The entrance axis was emphasized with front-end arcade portico within the ground floor and a porch within the third level. The curve of strut bends ensured semicircular shape of the arcades. Timber walls were left without plaster. The facility was bombed on June 23rd 1941 after the outbreak of the Soviet-German war [Petrowicz 1986], but it was finally destroyed after 1945.

"Gorgany" Health House in Jaremcze-Jamna

Fig. 10. Jaremcze-Jamna, "Gorgany" Health House of the Association of Tax Control Officials, 1930s Postcard from author's own collection.

Jaremcze-Jamna, Dom Zdrowia Stowarzyszenia Urzędników Kontroli Skarbowej „Gorgany", lata 30. XX w. Karta pocztowa w zbiorach autora.

Fig. 11. Jaremcze-Jamna, "Gorgany" Health House of the Association of Tax Control Officials, 1930s after the reconstruction of front façade. Postcard from author's own collection.

Jaremcze-Jamna, Dom Zdrowia Stowarzyszenia Urzędników Kontroli Skarbowej „Gorgany", lata 30. XX w. po przebudowie elewacji frontowej. Karta pocztowa w zbiorach autora.

"Gorgany" Health House of the Association of Tax Control Officials from Stanisławów was the full name of the facility. The construction finished probably in the early 1930s. It was a two-level building with a high and steep half-gable roof with dormers in the form of egg-and-darts (Photo 10). The building had plastered timber walls with a stone plinth. Its plan was based on an elongated rectangle. Interior arrangement was based on two and a half bays with internal corridor. Edge avant-corpses could be found in longer façades, finished with triangular gables. Main axis of the Southern façade was accentuated with a mansard, covered by the roof with sloping surface as well as entrance porch portico. First floor was emphasized with continuous horizontal balcony. This element was later deconstructed (Photo 11). The location of entrance stairs was also changed – from the stairs adjacent to the façade to their axial arrangement.

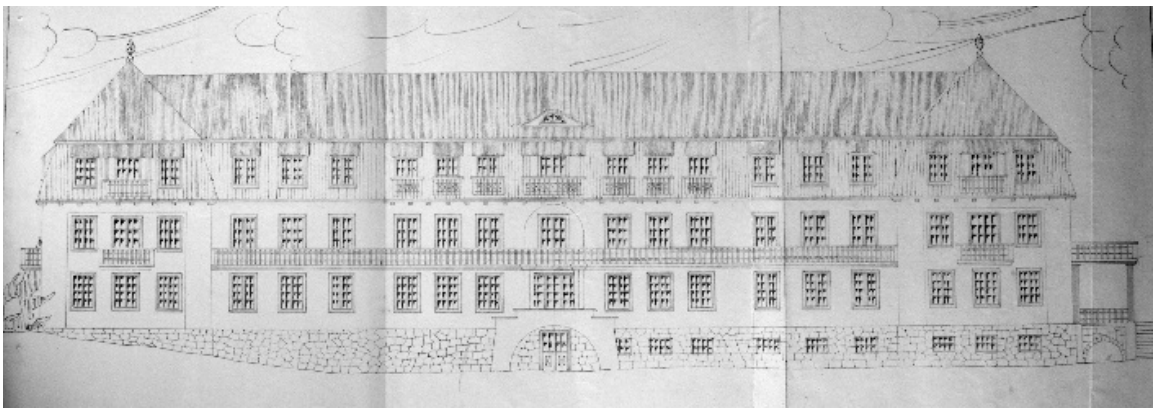

Fig. 12. Jaremcze-Jamna, "Gorgany" Health House of the Association of Tax Control Officials. Designer Eng. Maksymilian Platzer 1928, front façade [DAIFO, sign. 517].

Jaremcze-Jamna, Dom Zdrowia Stowarzyszenia Urzędników Kontroli Skarbowej „Gorgany". Proj. inż. Maksymilian Platzer 1928, elewacja frontowa [DAIFO, sygn. 517].

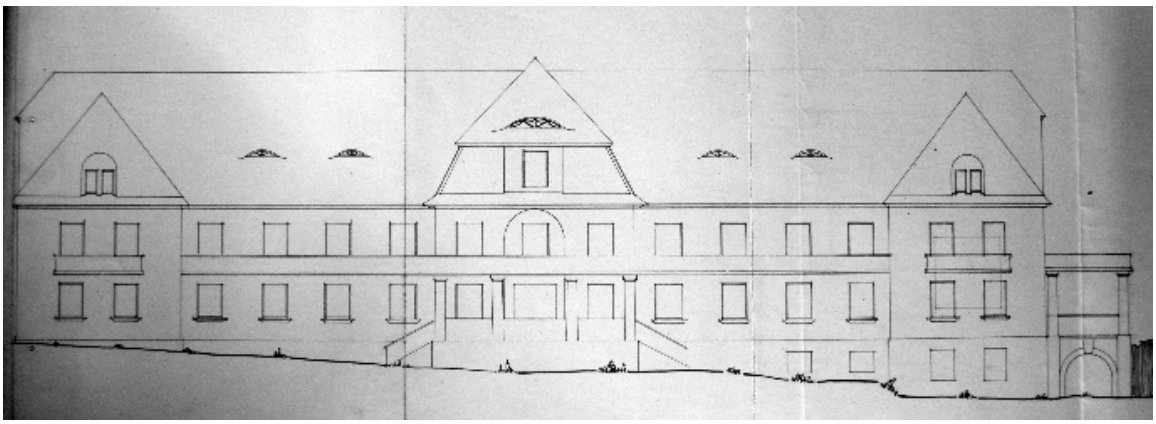

Fig. 13. Jaremcze-Jamna, "Gorgany" Health House of the Association of Tax Control Officials. Designer Eng. Julian Feuerman 1928, front façade [DAIFO, sign. 517].

Jaremcze-Jamna, Dom Zdrowia Stowarzyszenia Urzędników Kontroli Skarbowej „Gorgany". Proj. inż. Julian Feuerman 1928, elewacja frontowa [DAIFO, sygn. 517].

The design of the facility was divided into two stages. The first concept, dated 1.03.1927, was performed by the engineer, government-authorized constructor Eng. Maksymilian Platzer from Stanisławów [DAIFO, sign. 517]. He suggested a two-level wooden building with mansard roof including rooms for guests (Photo 12). This concept was rejected by the Directorate of Public Works of the Voivodeship Office in Stanisławów in August 1928, with the justification that basing on the regulations in force: *"the buildings which are not fireproof may not be higher than two levels (ground floor and the first floor) and it is forbidden to settle in the attics of*

such buildings. It is thus necessary to include the walls made of bricks or other fireproof material in the design, or to perform the design of a one-level timber building" [DAIFO, sign. 517]. As a result of ineffective attempts to convince the authority to change their decision, Engineer Julian Feuerman, also from Stanisławów, performed a new design in September 1928. This version, apart from slight modifications in the arrangement of plans and in the entrance zone, included the liquidation of usable mansard, replaced by non-habitable attic (Photo 13). The design, approved in 1929, was realized according to this concept. The date and circumstance of destruction of this object remain unknown.

Health House of the Association of Ukrainian Teachers in Jaremcze-Jamna

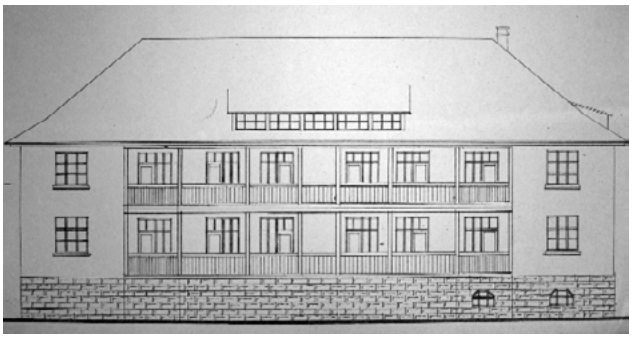

Fig. 14. Jaremcze-Jamna, Health House of the Association of Ukrainian Teachers. Designer Eng. Leon Borgenicht 1935, North-Eastern façade [DAIFO, sign. 2355].

Jaremcze-Jamna, Dom Zdrowia Uczytielskiej Hromady. Proj. inż. Leon Borgenicht 1935, elewacja płn.-wsch. [DAIFO, sygn. 2355].

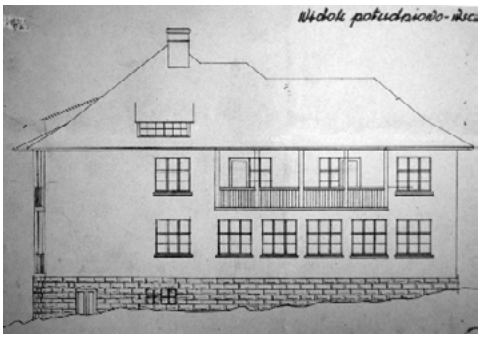

Fig. 15. Jaremcze-Jamna, Health House of the Association of Ukrainian Teachers. Designer Eng. Leon Borgenicht 1935, North-Western façade [DAIFO, sign. 2355].

Jaremcze-Jamna, Dom Zdrowia Uczytielskiej Hromady. Proj. inż. Leon Borgenicht 1935, elewacja płn.-zach. [DAIFO, sygn. 2355].

The existence of the facility, constructed for the Association of Ukrainian Teachers from Stanisławów, is known only thanks to the preserved architectural documentation from the year 1934, approved in April 1935 [DAIFO, sign. 2355][16]. It was designed by government-authorized constructor and sworn court expert[17], Engineer Leon Borgenicht from Nadwórna. The building, with cellars under its part and with plan based on the letter L, was covered by multi-slope roof with dormers (Photo 14–15). Its timber walls were plastered, had transom structure and were placed on the plinth performed from regular stone ashlars. In the central part of the South-Western façade, two-level deep loggia was designed. Its edge was slightly protruded to the front of the wall face. A smaller element of a similar character appeared on the first floor within the South-Eastern façade. At the same level, but within the North-Eastern façade, long veranda was designed, with roof supported on posts.

Summary

The presented buildings constitute formally diversified, but consistent facilities complex. They were distinguished by: their function connected with healthcare – health centers or sanatoria, similar capacity – they were designed for about 80 patients, the material from which they were constructed – timber transom structure as well as construction period – late 1920s and early 1930s.

The architecture of buildings, however, represents diversified formal stylistics. Tax Officials House and Policemen's Health Center followed the concept of Hutsul regionalism. The elements representing this trend

16 It remains uncertain whether the facility was constructed, archival iconography was not found.

17 Designer's stamp on the drawing including the site plan.

(avant-corpses, entrance porticos, porches, balconies) were present in the Railway Sanatorium as well as the Health House of the Association of Tax Control Officials, even though their façades were characterized by great simplicity. The Health House of Ukrainian Teachers, in turn, represents the synthesis of regionalism and modernism. Simple and geometrized structure of the building was covered by a steep roof, while the façade was enriched with a long balcony and deep loggia.

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„Policyjny Dom Zdrowia" w Tatarowie jako przykład dużego budynku sanatoryjnego w dolinie Prutu na Huculszczyźnie

Streszczenie: Artykuł prezentuje Sanatorium Policji Państwowej w Tatarowie w kontekście innych dużych obiektów o drewnianej konstrukcji powstałych około 1930 r. w dolinie Prutu na Huculszczyźnie. W tym czasie powstało tam kilka budynków mogących jednorazowo przyjąć ponad 80 kuracjuszy. W Tatarowie oddano do użytku dom wypoczynkowy „Znicz" Stowarzyszenia Rodziny Kolejowej. Towarzystwo Urzędników Skarbowych wybudowało dom wypoczynkowy „Skarbówka" w Worochcie. W Jaremczu – Jamna rozpoczął działalność Dom Zdrowia Stowarzyszenia Urzędników Kontroli Skarbowej Rzeczypospolitej Polskiej „Gorgany". W połowie lat 30. zaprojektowano w tej samej miejscowości dom wypoczynkowy dla Stowarzyszenia Nauczycieli Ukraińskich.

Słowa kluczowe: architektura uzdrowiskowa, Huculszczyzna, Sanatorium Policji Państwowej, Tatarów

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Adaptive reuse of commercial and public buildings in Wroclaw Old Town in Poland. The occupant's safety and comfort versus preservation of authenticity of monumental buildings

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Abstract: There are more than a hundred historic public buildings in the centre of Wrocław, adapted to fulfill modern commercial function. Against the background of today's cosmopolitan shopping centers and office buildings, these buildings are distinguished by stylish architecture, maintained in eclectic, Art Nouveau or modernist forms. In the process of renewal of such monumental buildings, there is a need to reconcile the requirement for maximum protection of the historic material with safety and comfort of use. The multi-disciplinary construction design constituting the basis for the adaptive reuse of the heritage building must be preceded by conservation research and concept designs simulating possible program options. This allows linking the assessment of the value of the architecture with a choice of the matching function corresponding to the location and historic structure of the building. The further multi-disciplinary design process and implementation of such a project should be based on the Research by Design scheme. This allows for control of the implementation of the project and to rationalize the necessary upgrade of the facility with the application of such space and technical solutions that limit the destruction of its historic substance. The paper presents conclusions from several adaptive reuse projects carried out in such a way, in which it was possible to create high-class department stores, banks, hotels or prestigious offices inside the heritage buildings. The essence of these developments was to preserve the authenticity of the monumental building, while providing the necessary infrastructure, plant rooms and equipment guaranteeing safety and comfort of use.

Keywords: adaptive reuse, commercial buildings, heritage building preservation, Research by Design, sustainable development, Wrocław

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Introduction

At the beginning of the 21st century, a development boom took place in Wrocław, which resulted in the completion of four hundred commercial buildings, including over one hundred located in revitalized historic buildings, mainly those built at the turn of the 19th and 20th century [1]. The largest concentration of this type of facility took place in the area of the historic centre: in the Old Town and the Przedmieście Świdnickie suburb, where modern department stores, banks, hotels, restaurants and entertainment facilities, as well as prestigious offices, were located in the refurbished monumental buildings. Against the background of today's cosmopolitan commercial buildings, these facilities are characterized by stylish architecture maintained in forms: eclectic, *Art Nouveau* or modernist. They are special features of the most important streets and squares, and their commercial content essentially contributes to the transformation of the historic centre of Wrocław into the metropolitan business centre and a tourist destination [2]. The leading role in the success of these developments was played by the architectural and conservation strategies applied during the design process, which allowed to preserve the authenticity of the architectural monument and to display its esthetic properties, while ensuring safety and usability, which also involved the introduction of necessary infrastructure, plant rooms and equipment.

It is well known that historic buildings of all types, including centuries-old Gothic, Renaissance or Baroque buildings can be used for modern commercial purpose, however, the cost of providing standard commercial areas is astronomical (due to the scope of refurbishment and adaptation works). Therefore, in Wrocław, the buildings created in the imperial times of the *Deutsches Kaiserreich* (in 1890–1914) and the modernist decade of the *Weimarer Republik* (in the years 1925–1933) are most often subjected to refurbishment for modern commercial use. These were two periods of splendor in Wrocław (then *Breslau*), during which the romantic Old Town was transformed into a *city*, comprising of over 300 modern public buildings and 1,000 residential and commercial buildings. Of these, 60 department stores, 15 banks, 20 office buildings, 15 hotels and 300 multifunctional facilities have survived to this day [3]. All these buildings were built in accordance with the strict regulations of the construction law in force at that time. Their structures ensure safety and comfort for users, and fire-resistant constructions made it possible for them to survive fires during World War II. Also today, these facilities meet most of the applicable technical requirements. This applies to the load-bearing capacity of the main structure and durability of facades, layout of the most important areas, including their height and provision of daylight, as well as the layout of horizontal and vertical escape routes. Therefore, relatively easily and without large losses in a historic substance, they can be subjected to processes of adaptive reuse to modern functions. Over the last twenty years several dozen of them have undergone professional conservation and extension, thanks to which they function today as modern commercial facilities. Their contemporary use refer to the time of the original function, but sometimes a drastic change in the way of use takes place. Mostly, multifunctional buildings are being built, containing commercial, banking, catering or entertainment facilities on the lower floors, and offices, hotel rooms or apartments on the upper floors. The largest groups of complex buildings are commercial buildings, hotels and class A or B office buildings. The subject of this article is the review of refurbishment of historic commercial buildings including adaptation to modern commercial function.

Aims and methods

Nineteen modern developments involving the adaptive reuse of commercial facilities in the Old Town in Wrocław were selected for research. The principal scientific method adopted for the purposes of the planned research was comparative analysis. The authors' own professional experience in design and supervision of over fifty similar developments was used as the basic material for analysis. In order to thoroughly examine the remaining examples, queries, field studies, studies of the design, applicable legal acts and planning documents, as well as consultations with *conservation officers,* designers, developers, users of the buildings in question were carried out [4–10].

The paper presents the conclusions from the above-described projects, during which high-class department stores, banks, hotels or prestigious offices were created in heritage buildings. The essence of these developments was to preserve the authenticity of the building and to display its features, while providing the necessary infrastructure and plant rooms as well as equipment guaranteeing safety and comfort of use. The aim of

the research was to identify and describe the design strategies encountered in the processes of conservation of commercial facilities and to indicate recommendations for the optimal implementation of this type of construction projects in line with the principles of the sustainable development.

Sustainable design strategies for the restoration of historic commercial buildings. Case study presentation

In the process of conservation of heritage buildings, especially those adapted for prestigious public facilities, there is always a need to reconcile two priorities: conservation and technology. According to them, maximum protection and exposure of a valuable historical substance should be sought, as well as all aspects of the safety of large groups of users should be strictly guaranteed. The implementation of these goals takes place through a design process based on a scheme referred to as *Research by Design* [11, 12]. It involves survey of building and creating a detailed conservation program already in the pre-design stage. At the same time, an optimal functional program that meets specific social needs and ensures a profitable venture is being pursued. The multi-disciplinary construction design, which is the basis for the project, must be preceded by optional architectural concept designs based on conservation, technology and marketing research. These concept designs are developed to generate and optimize the final space planning appropriate to the rank of the monument and its location – which must also correspond with the provisions of the current Local Spatial Development Master Plan.

It allows for professional assessment of the value of architecture and undertaking correct decisions in the construction design regarding the scope of the reconstruction of its building structure, methods of conservation of historic elements in connection with the selection of the appropriate program for all rooms. It is necessary to meet comfort requirements and fire safety. All in all, it allows rationalizing the necessary changes in the structure of the building, with the use of technology that limits the destruction of its historic substance. The implementation of such a programmed undertaking must be based on extremely detailed and technological designs. It is necessary to constantly monitor the course of the project, which is carried out as part of the architect's supervision. Often during the implementation, design decisions and changes in documentation are re-evaluated [13]. This is due to the fact that survey of the monument is still taking place on the construction site, and every discovery must be analysed and, if necessary, followed up by the detail design. In each of the described cases, thanks to the work of scientists and multi-disciplinary design teams and professional contractors, it was possible to create comfortable utility spaces well-matched to the type and size of the heritage building, avoiding irreversible interference in its structure [13]. It was connected with the maximum protection of stylish facades, representative interiors and old structures. All-important historic elements were renovated and maintained. The leading role was played by architectural decisions combining the principles of conservation programs, ensuring fire safety and compliance with regulations, as well as broadly understood security.

Owing to such coordination, it was possible to create the best conditions for the customer and an "ideal" working environment. At the same time, it gave users a sense of ennoblement resulting from the fact that they are staying in a building with dazzling architecture. Achieving these effects usually lead to enormous technical problems. This involved the necessity to rebuild the foundations and strengthen the structure, revise the escape routes and build new elements of vertical transport, as well as implant the parking lots in the buildings. Significant changes were also caused by the desire to optimize the conditions of use, including improvement of heat balance and introduction of environment friendly solutions. This generated the need to provide a variety of services and related ducts and large plant rooms. These devices had to be placed in existing historic basements, attics or on roofs, which triggered many conservation problems. All in all, it required all stages of the development to set priorities and make critical technical decisions that would reconcile (often contradictory) conservation and construction plans. They were not easy and sometimes they had to be based on compromises.

Assessing the adaptability of different types of public buildings. Analysis and discussion

Adaptability of historic commercial buildings

As already mentioned, conservation and extension projects related to the adaptive reuse of historic buildings to modern functions in Wrocław are most often taking place in old department stores (*Kaufahaus, Warenhaus*) and multi-purpose department stores such as *Geschäftshaus*, offices and banks, as well as hotels, and both cultures established at the turn of the 19th and 20th century. Space planning of these historic buildings, the composition of their façades and structure are a derivative of their original function. For example, in the department stores, open space floors based on multi-storey skeletal building structures were designed, and the façades were shaped to provide the maximum amount of daylight in the interiors and to create large exhibition spaces. Hotels, offices and banks at the turn of the century received monumental forms referring to palace architecture, with pompous lobbies and prestigious rooms in the commercial sections, as well as corridor layouts in case of residential or office sections [14, 15]. The structure of these buildings was based on massive transverse and external walls. The windows were relatively small. All façades of public buildings had a durable stone or ceramic face of the façades, which in the Wilhelmine period was enriched with a rich stylish decoration (German styles: *Eklektizismus, Jugendstil, Neobarock, Neorenaissance*) The buildings from the Modernism era looked different, their structure was shaped primarily in terms of maximum simplicity and functionality of the building (styles *Neuen Sachtlichkeit, Moderne*). The exceptions were prestigious offices and commercial buildings for which expressionist forms or a luxurious version of modernism were used – *Art Déco* [3]. Not only the façades, but also the crowning of the buildings evolved from turn of the century's dominating rich compositions consisting of towers, peaks and pitched roofs (or mono-pitched roofs hiding spacious attics) to flat roofs used from the 1920s (Fig. 1–2). All in all, all these buildings dazzled with their composition, the technical quality of the built elements and the artistic detail. Their rich forms in the case of offices and banks were to show the majesty of power and in the case of commercial buildings and hotels magnetize the public. The interiors were usually well suited for fulfilling the coordinated functions. They were spacious and well-lit, although often attention was not paid to their correct location in relation to the sun, which caused excessive insolation or overheating of rooms.

Fig. 1. Hennes & Mauritz department store (H&M) refurbished in 1997–2004 in accordance with Studio EL (photo by P. Kirschke).

Fig. 2. Renoma Department Store refurbished and extensioned in 2005–2009 in accordance with the design of Pracownia Projektowa Maćków (photo by J. Sokołowski).

The buildings contained also some dubious solutions, affecting today's problems with their adaptation to modern functions. The disadvantages include irrationally large entry and communication spaces. Open halls and stairwells were exposed to smoke during a fire. In the entrance areas there were usually massive doors and complicated vestibules that hindered access to the building. The problem was also the loss of heat caused by a high coefficient of heat transfer through building partitions and the loss of energy through roof skylights and single glazed windows. The wooden, iron and steel structures of older buildings had a low load-bearing capacity and unsatisfactory fire resistance. Basically it improved after wide spread use facing to steel and reinforced concrete structures (Fig. 3–4). As far as infrastructure is concerned, in the last decade of the 19th century buildings were fitted with electrical, telecommunications and plumbing systems as well as relatively efficient central heating systems (including air heating ducts). From the mid-1920s, fire hydrants and fire tanks were introduced. Also, the provision of separate escape staircases was strictly required. The mechanical ventilation and air conditioning were still missing, which to some degree was compensated by the perfectly implemented natural ventilation (the airflow was infiltrated). All the buildings were fitted with electric elevators. Escalators appeared in the late 1920s, but they were rare. In commercial buildings, entrance to the building was to be as easy as possible for public access, which made them also well accessible to the disabled. However, the same can not be said about offices or banks where, due to the need for grandness, raised ground floors and pompous stairs at the entrances were designed, which created terrible architectural barriers.

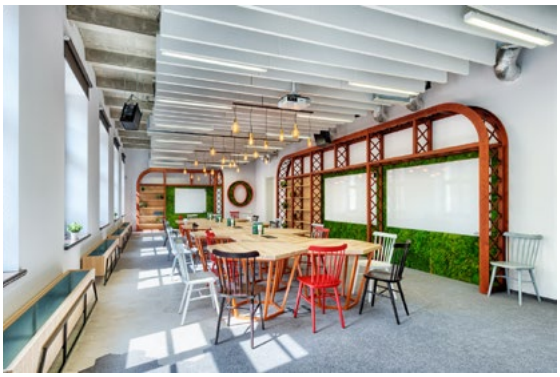

Fig. 3. Meeting room inside Hieronimus I Office Building refurbished and extensioned in 2015 in accordance with the design by Grupa 33_03, interior design by mode:linaTM (photo by mode:linaTM).

Fig. 4. The atrium of Renoma Department Store refurbished and extensioned in 2005–2009 in accordance with the design of Pracownia Projektowa Maćków (photo by A. Krupa).

Adaptive re-use for commercial purpose

The structures of historic department stores are most suitable for adaptive reuse to modern commercial functions. They were fitted with repeatable open floor plans – which are also a best option for contemporary commercial buildings for high-profile companies. They have skeletal, post-beam or frame structure with large spans up to 12 m, stiffened by staircases, lift shafts and gable walls, which also serve as effective fire walls. Finally, these buildings are elegant, fitted with huge windows, richly decorated facades with a ceramic face or made of Silesian stone: sandstone or travertine. The listed values and excellent locations of these buildings on the main streets of the centre of Wrocław also today make them suitable for commercial, banking, catering and office functions. Examples of such refurbished and efficient historic structures are: Hennes & Mauritz department store (H&M) at Świdnicka 7 Street (former Geschäftshaus Paul Schottländer, built in 1897, arch. Karl Grosser, in 1997–2004 refurbished in accordance with Studio EL design); Feniks Department Store at Rynek 31/32 (former *Warenhaus Gebrüder Barasch* built in 1904, arch. Georg Schneider, in 1997–2015 a several-stage refurbishment took place in accordance with the design of Kirschke Pracownia Projektowa [5]); the Renoma Department Store at Świdnicka 40 Street (former *Warenhaus Wertheim* erected in 1929–1930, arch. Hermann Dernburg, in 2005–2009 refurbished and expanded in accordance with the design of Pracownia Projektowa

Maćków [4]); Department Store GRE 1, EMPiK, at Rynek 50 (former *Geschäftshaus Hünert*, built in 1904, designed by Leo Schlesinger & Hermann Benedickt, refurbished in 2001 in accordance with Kapitońscy design and in 2012 in accordance with the design of Kirschke Pracownia Projektowa [6]); Kameleon Department Store at Oławska 7/8 Street and Szewska 6/7 Street (formerly *Kaufhaus Rudolf Petersdorff*, built in 1928, arch. Erich Mendelsohn, refurbished in 2007 in accordance with the design of KMA Kabarowski Misiura Architekci and in 2015 in accordance with the design of Kirschke Pracownia Projektowa).

Architectural and conservation issues related to the adaptive reuse of these buildings have been already described by the authors of this article [1, 3, 16–19]. Here, let's concentrate on program and technical issues as well as those related to ensuring safety and comfort of use. Due to the unique architecture of these buildings and the individual functional programs selected for them, the scope of construction and adaptation works was different each time. One can, however, try to draw conclusions and generalizations about the methods and effects of these conservations. However, one must remember that all decisions were made taking into account the fact that these are heritage buildings. Therefore, in cases when it was necessary due to the desire to preserve the historical elements of the building, or due to the adopted construction process, numerous non-standard solutions and derogations from provisions were used to apply relevant standards in a slightly different than usual way [20]. This included, for example, omitting insulation of external facade due to rich architectural details, the lack of daylight in some utility rooms, and applying nonstandard solutions allowing the separation of fire zones and ensuring safe evacuation.

Fig. 5. The main entrance to Renoma Department Store, refurbished and extensioned in 2005–2009 in accordance with the design of Pracownia Projektowa Maćków (photo by P. Kirschke).

The first factor in the process of refurbishment of historic commercial buildings were decisions on how to use them, which had to be matched to the historic structure of the building. The selection of this program was of critical importance due to the need to face the competition of several large shopping malls and shopping centers built on the outskirts of the historic centre of Wrocław. As demonstrated by the practice in the refurbished historic buildings, the Ground Floor and the Basements were housing sale of household and food products (including alcohol) as well as catering and banking services. In larger buildings, retail functions were also spread on the First, Second and Third Floors, but it was rarely successful. Various types of offices or apartments were located on upper floors, for which separate entrances and independent staircases had to be provided.

Due to the specifics of the main commercial function of the building, the space planning and fitting of all areas of the building, starting from entrances through all interiors, had to meet the technical requirements defined for ZLI Fire Zones [21], guaranteeing the safety and comfort of the "crowds" of customers. For example, in the entrances to retail facilities, the priority is high throughput and comfortable accessibility for customers, including people with disabilities. Architectural barriers are removed at all costs. The equalizing steps are eliminated by adjusting levels of the pavement and the Ground Floor or by providing gentle ramps in the entrance area. In order to increase the transparency and capacity of the entrance, the vestibules with complex systems are removed. In their place, light, glazed swing doors (modeled on the historic door system) or automatic sliding doors and efficient curtains (air or water) are provided (Fig. 5–8). In large buildings, where there is a danger of the so-called the chimney effect, two sets of doors and air curtains are fitted. In order to make it easier to keep the building clean, extensive doormat systems are installed in the main entrances (hard doormat, semi-hard and soft – a total of 7 steps required).

Fig. 6. The main entrance to Feniks Department Store refurbished in accordance with the design of Kirschke Pracownia Projektowa (photo by P. Kirschke).

Fig. 7. The main entrance to Hennes & Mauritz department store (H&M) refurbished in 1997–2004 in accordance with Studio EL design (photo by P. Kirschke).

Fig. 8. The main entrance to EMPiK building refurbished in 2012 in accordance with Kirschke Pracownia Projektowa (photo by P. Kirschke).

All tenant premises must have attractive and wide entrances from outside or, in larger buildings, from the passage. It is important to secure the individual stores in terms of fire and theft protection, which is obtained by providing fire curtains to separate fire zones, roll-up gates and pedestrian security gates. It is crucial to provide adequate sales areas. The storeys of historic commercial buildings have suitable parameters for this. Their height is large, from 4.5 to 5.6 m, which allows for easy fitting of any services and equipment, and masking them with suspended ceilings. The main elements of the historic structure: load-bearing walls, pillars and beams allow for the implantation of modern commercial functions and meet the current technical standards. It is different with floor slabs, where large groups of people move and where heavy and flammable goods are stored. These floor slabs do not have sufficient fire resistance and the required load capacity (5 kN/m^2), which

means that they usually have to be replaced. There are even more problems with premises placed in the basements, where obtaining a required height (3.0 m clear) usually means that the foundations have to be deepened.

According to current standards for retail buildings, it is assumed that they operate best without the access to daylight. In the case of historic buildings, this means that windows need to be covered or non-translucent, which is achieved by creating on the Ground Floor, and even on upper floors, shop windows fitted with back walls. To enable such rooms to function in accordance with Health and Safety Regulations, relevant permits have to be obtained. The Permit, issued by a competent Municipal Health Department in consultation with the Municipal Labor Inspector, can be obtained for a historic building without a problem, if we provide adequate room height, efficient mechanical ventilation and adequate artificial lighting [20, 21].

Fig. 9. Feniks Department Store refurbished in 1997–2015 – section drawing, plant rooms indicated with light blue color (by Kirschke Pracownia Projektowa).

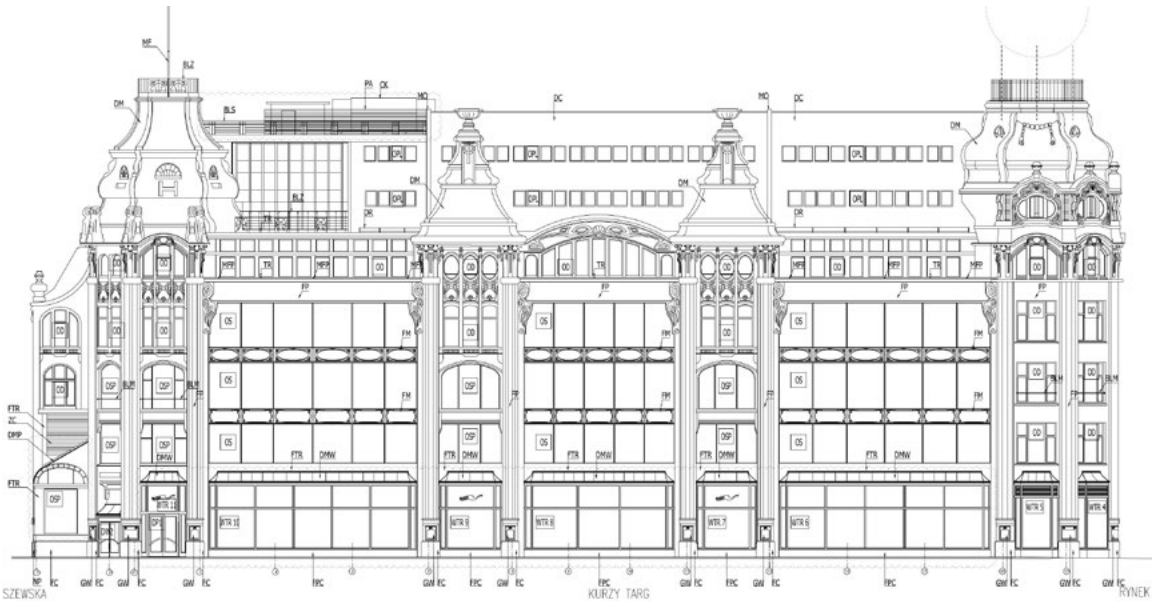

Fig. 10. Feniks Department Store refurbished in several stages in 1997–2015 – west elevation drawing (by Kirschke Pracownia Projektowa).

Numerous derogations from provisions are made for fire escape routes: historic open staircases are adapted by installing smoke curtains and electronically controlled smoke extraction or aeration. For historic doors, alterations are approved to allow doors to be opened contrary to the direction of the escape routes.

The huge problem is the provision of delivery areas and parking, which are necessary for the operation of the facility. It is nearly technically impossible in the historic structure, that is why the parking garage is easiest to provide in the new wing, but this is what we can do only if the building is expanded.

Fig. 11. Feniks Department Store refurbished in accordance with the design of Kirschke Pracownia Projektowa (1997–2015) – view from Świdnicka Street (photo by P. Kirschke).

Fig. 12. Close-up look at the facade of Feniks Department Store building refurbished in accordance with the design of Kirschke Pracownia Projektowa (photo by P. Kirschke).

In Poland, historic buildings are exempt from the obligation to determine their energy performance in the form of energy certificates [20]. This provision was created in order to avoid a situation in which rigorous forcing of the improvement of the energy balance would cause a threat to the look and detail of the historic façades. However, in refurbished commercial buildings the aim is to reduce heat loss by improving the insulation coefficients of external walls, eliminating thermal bridges and places where condensation may occur in the walls. The rich building façades make it impossible to insulate walls from the outside, therefore insulation from the inside is used, which is advisable only in case of walls below the window sill. The improvement of the heat balance of the building is achieved by providing insulation of roofs, where the recommended $U \leq 0.25$ [W/m^{2}K] heat transfer coefficient can be easily achieved. The replacement of glazing of windows, shopfronts and skylights (*Lichthof* – glass atrium) may also be carried out. Usually glass units with a heat transfer coefficient of $U \leq 1.10$ [W/m^{2}K] are provided, however, due to the common use of dry wall partition in shopfronts, a three-layer barrier effect with a heat transfer coefficient of approx. $U = 0.50$ [W/m^{2}K] is often achieved. The refurbishment of "Feniks" [5] (Fig. 9–12) and "Renoma" [4] (Fig. 13–17) department stores is the example of this option, where the wooden box windows were replaced with glass units which are a precise copy of the original window layout and proportions. In "Feniks" glazing of historic curtain walls was also replaced, where single glass panes were replaced with complex glass units fitted into the original steel structure (Fig. 12). Thanks to this, original details and gold-plated mosaics filling the space between the windows were preserved. The last element significantly improving the energy performance of the building is the elimination of so-called chimney effects (air curtains and fixed windows), and the replacement of natural ventilation with a mechanical ventilation, with heat gain system.

Large commercial buildings are fitted with water central heating system (80 / 60°C) and process heat system, supplying mechanical ventilation and air curtains. For technical reasons, the Heating Substation and Main Plant Rooms are usually located in the Basement. This causes serious conservation problems, as exemplified by department stores at Rynek in Wrocław, where Plant Rooms were located in Gothic Basements, which could have been used much better as restaurants [6, 7]. Therefore, if possible, it is best to locate Plant Rooms in new sections of the building. In the case of "Renoma" department store, huge Plant Rooms with a total floor area of

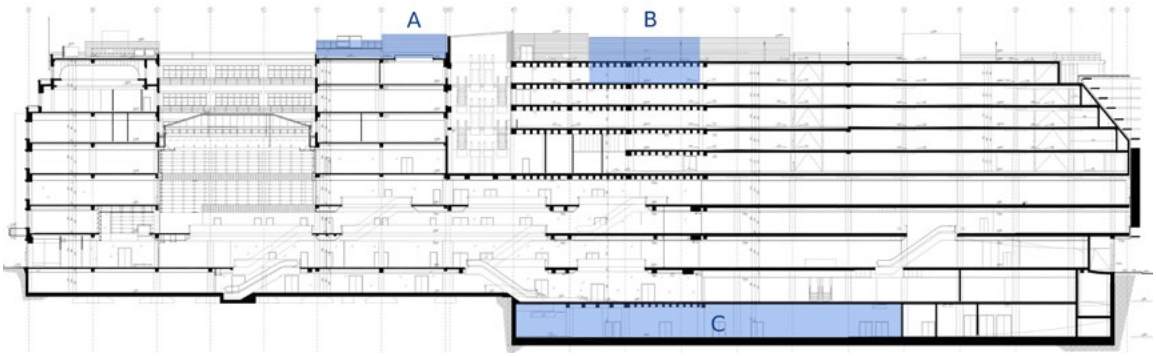

Fig. 13. Renoma Department Store – section drawing with plant rooms indicated with light blue color (by Pracownia Projektowa Maćków).

Fig. 14. Ventilation ducts (indicated with letter A in Fig. 13) on the roof of Renoma Department Store (photo by P. Kirschke).

Fig. 15. Ventilation ducts (indicated with letter B in Fig. 13) on the roof of Renoma Department Store (photo by P. Kirschke).

Fig. 16. The plant room (indicated with letter C in Fig. 13) located in the basement of Renoma Department Store (photo by P. Kirschke).

Fig. 17. The Renoma Department Store refurbished and extensioned in 2005–2009 – top view, ventilation ducts visible on the roof of the building (photo by Fotopolska).

4000 m^2, including a Heating Substation with a capacity of 5.5 MW, were provided on level -2 of the new wing [4] (Fig. 13–17). A part of ventilation units, cooling towers and cooling units are located in attics or on roofs, which, however, creates the danger of distorting the building's outline. Therefore, the attempts are made to place them within the former light wells (in case of "Feniks" [5]) or in specially designed lower sections of the roof (in case of "Renoma" [4]). In both cases, it was also necessary to provide acoustic screens to reduce noise emissions, as the sound power level of these devices is from 85 to 100 dB (A).

Adaptive re-use for offices

The development boom, which takes place in Wrocław in the last 20 years, similar to the one century before, caused that today there are 120 modern office buildings provided, with a total area of 1,000,000 m^2, where over 50,000 employees are employed. About 20% of office space in Wroclaw is in refurbished historic buildings. In all these buildings, rapidly growing Polish or international corporations operating in the sectors of Shared Services Centers (SSC), Business Process Outsourcing (BPO), IT centers and R&D centers are located [22, 23]. The buildings built for them must not only meet basic legal requirements, but also have a unique architecture and meet all international recommendations: BOMA International, Rolfe Judd Architecture and CB Richard Ellis, as well as obtain internationally recognized *certificates*: LEED, BREEAM or DGNB [24]. Due to meeting the latest requirements, Wrocław office buildings are rented by such companies as: *Hewlett-Packard, Google, IBM, Netia, Nokia, Parker Hannifin, Volvo, Toyota, Luxoft, Opera, Quatar Airways, Ryanair, Credit Suisse, Capgemini, Deloitte, Mellon Bank*. When it comes to rank and attractiveness as a business centre, Wrocław is being equated with cities such as: Prague, Budapest, Barcelona or Dublin [2].

Optimization of the office space structure of office buildings involves creation of a representative entrance zone and an ideal working environment on (repeatable) office floors. At the same time, due to the prestigious locations of such facilities on the main streets and squares, it is common to provide commercial space in them, primarily on the Ground Floor. Thanks to this, they become attractive to the public and are an important factor building the city's urban atmosphere. The most serious limitation for the office buildings emerging in the centre is usually the lack of possibility to provide parking for building employees within the building (basements are not suitable), but it does not discourage international corporations (e.g. Norwegian Opera Software having its offices in Hieronimus I Office Building) to rent these spaces. Compensation is efficient public transport and a dense network of stops allowing access to any building within 5 minutes. Parking and Change Rooms for cyclists are created in the facilities. Municipal systems for renting bicycles and electric scooters are also very efficient.

The best examples of refurbished and efficiently operating as offices historic buildings (including retail on the Ground Floor) are: Municipal Offices at Nowy Targ 8 (former *Oberpräsidium der Provinz Schlesien,* built in 1914–1918, arch. Karl Löwe) and Municipal Offices at Zapolska Street 4 (former *Allianz-Haus*, 2010 arch Alvin Wedemann), New Point Offices at Ruska 11/12 Street and Białoskórnicza Street (former *Geschäftshaus Max Goldstein Reussenhof*, built in 1907, in accordance with the design by arch. Georg Mohr, refirbished and extended in 2005–2009 in accordance with the design by POINT Co. Ltd Pracownia Projektowa Sp. z o.o.), Business Centre Save The World at Oławska 12/13 Street and Łaciarska 3 Street (former *Warenhaus Stefan Esders*, built in 1902 in accordance with the design by Alvin Wedemann, refurbished in 2012–2014 in accordance with the design by Piotr Szarejko PAPS), Quantum Oławska Office Building at Oławska 10/11 Street (former *Kaufhaus C&A Brenninkmeijer*, built in 1931 in accordance with the design by Seep Kaiser, refurbished in 2011–2012 in accordance with the design by Quantum Project sp. z o.o.) or Hieronimus I Office Building (known also as a 'glass house') at Świdnicka 34 Street and Teatralny 8 Square (former *Geschäftshaus Julius Schottländer*, built in 1911 in accordance with the design by Richard Ehrlich & Paul Ehrlich, in 2011 allocated for office development, but finally refurbished in 2015 for an office building in accordance with the design by Grupa 33_03 [8]) and Pokoyhof Passage at Św. Antoniego Street 2/4 (former *Geschäftshaus Pokoyhof*, built in 1911, arch. Max Mathis, in 2007–2015 refurbished by Verity Development and Aim Engineering).

The form of adaptation of a historic office building for a modern office building is influenced by, sometimes contradictory, the original functional layout of the building (most often passage interior layout) and applicable office building design standards (open space and hot-desk layouts are expected, as well as reduced number of individual rooms). In the case of offices located in the former grand office buildings, the largest refurbishment

works take place on the Ground Floor, in areas intended to receive customers. At the great expense, operating rooms or large retail areas, which must be fully accessible for disabled people, are being provided there. The cubicle office layout remains unchanged on the upper floors. In practice, this means that former office buildings should retain their original use, otherwise the scale of refurbishment will lead to the destruction of the majority of the original building substance.

This is due to the fact that in the case of commercial office buildings, the basic goal is always to achieve maximum efficiency of space use as well as the ability to meet variable requirements of tenants. For this reason, old commercial buildings with repetitive open plan floors, having skeletal post-beam structures with large spans, are much better suitable for modern offices (an example of the adaptation of the former *Geschäftshaus Julius Schottländе* to the Hieronimus I Office Building [8] (Fig. 18–21)). Retail buildings also meet without any problems the key requirements regarding the quality of office space. This applies to the fire resistance of the structure and its load carrying capacity of at least 3 KN/m^2 (5 kN/m^2 for escape routes). Due to the specifics of the use, the minimum clear height of office space should not be less than 2.70 m [21]. In historic buildings, even after the construction of raised floors and suspended ceilings housing the services, floors can easily reach clear height of 3.30 m. With large windows existing in these buildings, it is possible to obtain the recommended level of daylight of 500 lux, for at least 70% of the leasable floor area.

Fig. 18. Feniks Department Store refurbished in accordance with the design of Kirschke Pracownia Projektowa (1997–2015) – view from Świdnicka Street (photo by P. Kirschke).

Fig. 19. Close-up look at the facade of Feniks Department Store building refurbished in accordance with the design of Kirschke Pracownia Projektowa (photo by P. Kirschke).

Obtaining required coefficients of space use efficiency becomes more difficult, as modern technical standards enforce the designation of much larger areas in an office building on the so-called core containing elements of vertical communication (stairs and lifts), toilets, as well as necessary spaces for air conditioning, ventilation, plumbing, electricity, telecommunication (including server rooms) plant rooms. Obtaining additional space becomes possible, by adapting the attic (additional office space (Fig. 18–19)) or deepened basements (usually used for meeting rooms) for new functions, adding new storeys without changing the building's volume (replacing floor slabs and decreasing the usable floor height) or adapting neighbouring buildings for the offices (example of a school building located in Wrocław, Teatralny Square 6–7, adjacent to the Hieronimus I building

and creating a mini-office complex [8]). It rarely takes the form of supplements with ahistorical features in the form of extension (e.g. by changing old service yards to the patio or a multi-level atrium (Fig. 20) – this solution additionally contributes to the improvement of the interior microclimate), or the increasing height of the original building (additional volume is obtained by changing the geometry of the original roof or takes the form of extensive dormers), the use of which requires high design craftsmanship and respect for the cultural environment in the relation between the old and the new.

Fig. 20. The multi-story atrium of Hieronimus I Office Building refurbished in accordance with the design by Grupa 33_03 – a view showing the new glazed elevator shaft (photo by Grupa 33_03).

Fig. 21. Hieronimus I Office Building refurbished in 2015 in accordance with the design by Grupa 33_03 – view from the South (photo by P. Kirschke).

Another element characteristic for the buildings constructed at the turn of the 19th and 20th centuries which are in contradiction to the contemporary standards of office building design are irrationally large and open stairwells with stairs of steel or wooden structure (often quarter-turn stairs) that are exposed to smoke during a fire and can not in this shape serve as an escape route. Nevertheless, they have a unique historic value and are protected, therefore, in order to use them for evacuation in the course of the design (including CFD simulation) and consultations with the fire expert solutions are being developed to compensate for incompatibilities in fire protection in relation to the Regulations, e.g. total or partial (at the top) separation of staircases in the form of fire curtains, protection of the stairwell by providing overpressure relevant to a given class, construction of a DSO warning system in the building, application of the SAP fire alarm system, and subdivision of the building into small fire zones.

Flexible and easy to maintain horizontal distribution of the services is possible due to raised floors provided on existing floor slabs, as well as suspended ceilings. In the case of rooms with decorative vaults (basements) ventilation ducts are placed in their groins, and also distributed outside the outline of the historic building (e.g. in the basement of the courtyard changed to the atrium or in the newly built wings of the complex). However, extensive service ducts are located near vertical communication, sometimes also in place of demolished service staircases (as in the case of Hieronimus I [8]). When planning the service routes within the heritage building, safe technologies are recommended, e.g. in the form of dry wall (instead of chasing and plastering), which will not only facilitate the maintenance of services in the future, but will limit the chasing and irreversible depletion of the historic substance [25].

Presented examples of adaptation of historic buildings to offices again prove that with the application of appropriate design strategies, provision of rooms adequate for office work with favourable coefficients, as well as energy efficiency is possible. Possible restrictions in this respect are compensated by the unique values of the building and excellent locations on the main streets, which increase the prestige of its Landlord.

Adaptive re-use for hotels

Contemporary hotels created as a result of the secondary or purposeful adaptation of a historic building are one of the hallmarks of the hotel industry in the centers of Polish cities. As a result of this trend, the interest of prestigious hotel brands in such facilities increases, as well as there are increased tourist offers promoting areas and places where historic hotels are located [26]. The provision of hotel services in historic buildings is also regulated in Poland in formal and legal terms – in accordance with § 3 Point 1 of the *Regulation of the Minister of Economy and Labour of 19 August 2004 on hotel facilities and other facilities where hotel services are provided (Journal of Laws of 2017, item 2166)* [27]*: it is allowed to deviate as to the equipment and scope of services provided in hotel facilities [...] listed [...] or list of architectural and construction monuments and objects whose historical character is obvious*. In connection with the above, in every case of adapting a historic object to a hotel, the goal should be, among others, underlining and use of original artistic values and incorporation into a new utility function, thanks to which the unique value of such development, and in practice also its tourist popularity, will increase.

There are numerous historic hotels preserved in Wrocław, most of which have been refurbished in the last decade to meet contemporary hotel standards. Examples of these are hotels located at Piłsudskiego Street: Hotel Polonia (former Hotel *Vier Jahreszeiten* built in 1906–1911, arch. Paul Rother, in 2007–2014 refurbished in accordance with the design by Rafin Sp. z o.o.), Piast Hotel (former *Kronprinz Hotel* built in 1908, arch. Waldemar Wildbradt, in 2014 refurbished in accordance with the design by Kwolek & Januszkiewicz) and Grand Hotel (former *Hôtel du Nord*, built in 1904, arch. Paul Rother, in 2017–2019 refurbished in accordance with the design by GREG). Beside them the analysis concerned also: five star Monopol Hotel at H. Modrzejewskiej 2 Street (built in 1891 – 1892 in accordance with the design by Karl Grosser; west wing of the building was used for the hotel, while the east section was housing *Kaufhaus Rudolf Mosse* Department Store, in 2007–2009 refurbished in accordance with the design by Biuro Projektów i Ekspertyz ARCHIKON [9, 28] (Fig. 22–24)), four-star hotel AC by Marriott at Plac Wolności 10 (built in 1876, *Reichsbank* the first palace bank in Wrocław, in accordance with the design by Johanns Eduards Jacobstahls and Schlesische Immobilien AG – architect Friedrich Barchewitz, initially planned for a retail and residential function, in 2016–2017 adapted for a hotel in accordance with the design by MTA Tomasz Marhall [10]), four-star Grand City Hotel Wroclaw at Ruska 7 St. and Rzeźnicza 1 Street (former *Geschäftshaus Adolf Kreutzberger*, built in 1913 by arch Alvin Wedemann, firstly refurbished in 1993–1995 to the branch of Bank Handlowy in Warsaw SA, then in 2016–2018 to the Hotel according to the design by Archicom Studio Sp. z o.o.) and Hotel „Pod Złotą Koroną" at Rynek 29 and Oławska 2 St. (former *Geschäftshaus zur Goldenen Krone*, built in 1904 in accordance with the design by Heinrich Joseph Kayser & Karl von Großheim, refurbished firstly into an office building in 1959 to the design by Zbigniew Politowski, then rebuilt in 2015–2019 for a hotel designed by Kirschke Pracownia Projektowa, Feniks Studio [7]).

Fig. 22. Hotel Monopol Wrocław refurbished in 2007–2009 – section drawing with plant rooms indicated with light blue color (by Biuro Projektów i Ekspertyz ARCHIKON).

Fig. 23. Hotel Monopol Wrocław refurbished in 2007–2009 in accordance with the design by Biuro Projektów i Ekspertyz ARCHIKON – view from Świdnicka Street (photo by P. Kirschke).

Fig. 24. Hotel Monopol Wrocław refurbished in 2007–2009 – view of the multifunctional terrace deck (photo by E. Komarzyńska-Świeściak).

In order to present solutions and design strategies regarding cases of adaptive reuse of old commercial buildings or banks to hotels, the following examples were selected for analysis: hotels located at Piłsudskiego Street: Hotel Polonia (former Hotel *Vier Jahreszeiten* built in 1906–1911, arch. Paul Rother, in 2007–2014 refurbished in accordance with the design by Rafin Sp. z o.o.), Piast Hotel (former *Kronprinz Hotel* built in 1908, arch. Waldemar Wildbradt, in 2014 refurbished in accordance with the design by Kwolek & Januszkiewicz) and Grand Hotel (former *Hôtel du Nord*, built in 1904, arch. Paul Rother, in 2017–2019 refurbished in accordance with the design by GREG).

Adaptation of a historic building to a hotel requires taking into account the specifics of the program and the function as well as space model of a hotel facility. Their essence is the existence of two structural operation units, which consist of four divisions: residential, catering, multifunctional and recreational rooms, and the back-up facilities: administration, staff facilities and technical. In modern refurbishment of hotel facilities, the challenge for the design team is usually to increase the usable area within the operational unit while meeting all the requirements of the *Municipal Conservation Officer*. Compared to historic buildings, modern hotels have a different structure of the residential section (standard and number of rooms), a more varied selection of restaurant options (apart from the main hotel restaurant there are, for example, coffee shops, bars, wine bars and multi-functional banquet rooms, not only within the building, but also on its terrace), and can also offer work spaces (meeting and conference rooms, mini-office centers for hotel guests) or recreation (swimming pool, SPA, fitness rooms). Increasing the operating area of the building adapted for the hotel while limiting the interference in the integrity of the heritage building is possible by applying similar solutions as in the previously discussed office buildings, i.e. by adapting the attic or basements, replacing floor slabs and reducing the usable floor height, extension or increasing the height, as well as adaptation neighbouring buildings for a hotel use (e.g. transforming a retail building and roofs of Monopol into a wing containing hotel services [9] Fig. 22, 24).

An additional challenge is the requirement to shape all function rooms in a historic building, usually determined not only by the type and category of the hotel, but also the standard of building equipment and finishing assigned to specific unique brands (e.g. the Marriott hotel network currently has 30 brands that have been tailored to the needs of a specific target group).

An important conditioning for the correct structure and program of the hotel building is the proper development of its surroundings, primarily the hotel's entrance area. It should not only be devoid of architectural barriers and guarantee high capacity, but also provide comfort, e.g. by providing a covered entrance to the building in the immediate vicinity of taxi and coach access. A most popular solution of the entrance area to the hotel in the form of revolving doors is in contradiction to the historic character of the heritage building, which is why the most common solutions in this case are original wooden sliding doors combined with efficient air curtains (Monopol Hotel [9]), or sliding glass doors (AC by Marriott [10]) creating a spacious vestibule.

Examples of adaptation of historic buildings for the offices prove that using relevant design strategies, it is possible to achieve workspace with favourable coefficients of space use as well as energy efficiency. Possible restrictions in this respect are compensated by the unique values of the buildings and excellent location on the main streets, which raises the prestige of its Landlord. Thanks to the preserved historic architecture: façade details and unique elements of interior design, a historic building subjected to refurbishment can be an attraction, and even fulfill a didactic role, where the fact and effect of the exemplary adaptation becomes the special distinguishing feature. All the more so because the material testimonies of past era can perfectly coexist with contemporary architecture

Conclusions

Improvement of the image of Poland after joining the European Union, and particularly high position of Wrocław, which, apart from Warsaw and Krakow is perceived as the best place for commercial investments, and in connection with global crisis that limits places where you can safely and cheaply invest in large commercial buildings, hotels or corporate offices opens up more and more possibilities for this type of developments [22, 23]. Strengths of Wroclaw are: stable political and economic situation of Poland, good living conditions and safety, attractive environment (town planning and architecture), excellent service network, easy to find well-educated (office) staff, as well as efficient infrastructure, including: good train links, highway and modern airport. The examples of refurbishment of historic buildings and their adaptation for commercial, office and hotel use described in the paper have shown excellent effects of the revitalization of the entire historic area. In Wrocław, this was done in conjunction with the construction of a hundred multifunctional commercial facilities in this area. In total, together with the refurbishment of several dozen historic buildings, it had a very positive impact on the spatial order of the main squares and streets of the centre of Wrocław. It filled almost all existing gaps between the buildings since World War II. Thanks to the program and the rank of architecture, the city centre regained its former big city character.

The examples of developments in the Old Town in Wroclaw selected from a number of other developments, allowed to find out what problems the designer is faced with, while dealing with the adaptive reuse of commercial public facilities aimed not only at preserving the authenticity of a given monument, but also at ensuring safety and comfort for new users. They also prove that the adaptation of historic buildings to the requirements of modern use should be considered as one of the forms of protection and refurbishment of the architectural monument.

The most justified conclusion – resulting from the presented examples – is the need for consistent cooperation between various specialists at each stage of the development which is the refurbishment of a commercial building (selection of a user program, concept design, refurbishment design, Building Permit design and detail design, implementation). This should be prepared by an interdisciplinary design team coordinated by the architect-conservation officer, through the use of the *Research by Design* method [11, 12]. Properly executed pre-design works (archaeological research, iconographic and historical studies, conservation studies, stratigraphic research, surveys, especially based on 3D laser scanning of the building, recognition and review of previously proposed technical solutions) guarantee the success of the development and reduce the risk of losing the monument's authenticity, but also they are the basis for the sensibility and efficiency of the entire project. The key to the success of the project is a perfectly executed multi-disciplinary BP design, which is a formal and technical base for implementation. Finally, it is necessary to control the construction process, during which, due to discoveries, design decisions are often re-evaluated. The described examples of refurbishment of historic buildings in Wrocław and their adaptation to commercial, office or hotel use have shown how big (development) potential there is in buildings created at the turn of the 19th and 20th centuries. Their structural systems, space planning and technical solutions mean that with a properly selected user program, big interference in the historical substance is not necessary. It also reduces the costs that have to be borne to bring the buildings up to today's operational and safety requirements. The flexibility and adaptability to meet new requirements can be demonstrated by the various functional scenarios presented, which have been proposed in the form of multi-disciplinary BP designs, successfully implemented in Wrocław over the last twenty years.

On the other hand, the examples of refurbishment of historic buildings and their adaptation for commercial, office or hotel use, described in this paper, showed a huge development potential of buildings from the turn of the 19th and 20th centuries. As mentioned in the paper, their structural systems, functional and technical solutions in many cases do not require large interference and financial expenditure to meet modern requirements for this type of buildings. The various scenarios proposed in the form of multi-disciplinary projetcs for buildings presented in the article over the last years prove that they are flexible in adapting them for various needs and the limited scope of necessary restoration and adaptation works.

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Przebudowy komercyjnych obiektów użyteczności publicznej na Starym Mieście we Wrocławiu. Bezpieczeństwo i komfort użytkowania a zachowanie autentyczności zabytku

Streszczenie: W centrum Wrocławia istnieje ponad sto zabytkowych obiektów użyteczności publicznej przystosowanych do pełnienia komercyjnych funkcji usługowych. Na tle dzisiejszych kosmopolitycznych galerii i biurowców gmachy te wyróżniają się stylową architekturą, utrzymaną w formach eklektycznych, secesyjnych lub modernistycznych. W procesie ich rewaloryzacji istnieje potrzeba pogodzenia konieczności maksymalnej ochrony historycznej substancji z komfortem i bezpieczeństwem użytkowania. Wielobranżowy projekt budowlany stanowiący podstawę przebudowy zabytku musi być poprzedzony analizami konserwatorskimi oraz koncepcjami symulującymi możliwe warianty programowe. Pozwala to na powiązanie oceny wartości architektury z dobraniem funkcji adekwatnej do lokalizacji i historycznej struktury obiektu. Dalszy wieloetapowy proces projektowy i realizacja takiego przedsięwzięcia powinny opierać się o schemat Research by Design. Pozwala to na kontrolowanie przebiegu inwestycji i zastosowanie takich rozwiązań przestrzennych i technicznych, które ograniczają destrukcję jego historycznej substancji. W referacie przedstawiono wnioski z kilkunastu tak przeprowadzonych przedsięwzięć, podczas których w zabytkach udało się stworzyć wysokiej klasy domy handlowe, banki, hotele lub prestiżowe biurowce. Istotą tych inwestycji było zachowanie autentyczności zabytku i wyeksponowanie jego walorów, przy zapewnieniu niezbędnych instalacji infrastrukturalnych i związanych z nimi pomieszczeń oraz urządzeń gwarantujących bezpieczeństw i komfort użytkowy.

Słowa kluczowe: rewaloryzacja, budynki komercyjne, konserwacja zabytków, Research by Design, rozwój zrównoważony, Wrocław

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Compositional situation: analysis of the location of two sculptures in Mexico City

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Abstract: The study consists of two parts. In the first one, the author outlines a methodological concept of researching the quality of compositional and artistic spatial systems that are created, for example, in the urban environment with the participation of, inter alia, architectural objects and works of art. The subject of this type of research was called a 'compositional situation'. In the second part, the author uses the proposed research method to analyze specific cases. These are two situations existing in the public spaces of Mexico City, in which sculptures of famous Mexican sculptor Sebastian were located.

Keywords: methodology, spatial composition, public space, sculpture, Mexico City

Introduction

One of the basic goals of architectural creative activity is searching for and building order of space [Szmidt 1981]. Creating order of space should be a skill that a designer masters in the process of education and develops it in professional practice. Knowledge in this area is acquired through the analysis of formal systems in spatial reality or on the basis of theoretical models, projects and visions. For this purpose, various research methods are used[1].

A component of order of space (or spatial order) is formal order which is expressed, for example, through a spatial composition as a conscious and intentional configuration of a set of elements co-creating a specific system[2]. Formal order can be defined by means of a set of concepts describing or controlling relationships between elements which occur in a given spatial system. This system is understood as a fragment of space having a certain structure. The relationships occurring in such a structure can be studied, measured and described using a specific system of concepts, and thus features of the system such as dimensions, number of elements, appearance, etc. can be defined. At the level of description of the physical form, generally accepted sets of concepts and parameters, e.g. numerical values, geometrical shapes and material features are sufficient. At the level of description in terms of composition and art, it is necessary to use concepts and terminology that are relevant to a particular creative situation. A set of such terms was collected and discussed in a study that was made in the Department of Drawing, Painting and Sculpture at the Faculty of Architecture of Wroclaw University of Technology in 2015 [Maluga 2015]. It presented a wide range of terms related to compositional topics which were divided into terms describing composition components, compositional relationships between components, features of compositional systems as well as compositional and artistic means, tools and materials used in creative activity.

1 The methodological concept of the compositional situation refers to research practices described by E. D. Niezabitowska in her work *Research methods and techniques in architecture*; as a mixed method it includes, inter alia, elements of methods of analysis as well as logical and interpretative structure and case studies [Niezabitowska 2014].

2 A number of different definitions of the concept of 'spatial composition' and other related terms can be found in the following study: L. Maluga with his team, *Composition – selected problems in artistic, architectural and didactic artistic creative activity* [Maluga 2014].

Methodological concept of the 'compositional situation'[3]

A spatial composition – architectural, urban or landscape – is described in three main categories: form, structure and matter [Maluga 2016]. The next stage of the description and analysis can be the aesthetic interpretation of the work: presentation, significance, symbolism[4]. However, not every spatial arrangement, even representing a certain spatial (geometric) order is a composition. Therefore, for the purposes of description and analysis of a wider spectrum of spatial situations, the concept of compositional situation was proposed in these considerations. Consequently, this term is described as a methodological procedure consisting in defining, for research purposes, the space around a given artifact as its surroundings in relation to which there are compositional relationships. The artifact in this case (which constitutes the compositional situation) is sometimes an architectural object or ensemble, a composition of greenery, a sculpture, or another artistic work bringing specific compositional properties. Hence, the compositional situation is a broader concept than the term of composition (a single object or a complex), as it presupposes the examination of the relationship between a particular element and its spatial context. As a research concept of spatial structure, it also assumes the possibility of using it to analyze various spatial situations from architectural interiors to landscape interiors.

The idea of a spatial unit as a certain structure for research and design has appeared in the works of theoreticians of spatial composition, e.g. an architectural and landscape unit (landscape interior) in works of J. Bogdanowski [Bogdanowski 1976] or the concept of urban interior in works of K. Wejchert [Wejchert 1984]. Oskar Hansen, on the other hand, uses in his reflections on visual structures the term "situation consciously highlighted" as a tool of artistic interaction in the spatial environment. It is a situation of controlled use of form relations as opposed to any form relation in space [Hansen 2005, pp. 18–19]. In this approach, Hansen's term can be referred to the concept of a compositional system in which all elements are related by compositional relations. However, in a spatial reality there are many systems built of elements (being compositions in themselves) without consciously assumed mutual compositional relations, characterized by random, distorted spatial relations as a result of changes or incorrect design decisions.

Space has its own history. Sometimes construction projects arise in a pristine terrain without any cultural context. More often, especially in cities, new facilities are created in existing spatial arrangements and in the vicinity of already completed facilities. Therefore, they enter into spatial relations with previously created elements of the structure (with a context), adding or expressing the compositional and artistic values of the urban space. Each interference – a new implementation or change of the existing system – creates a new spatial and compositional situation.

An example of such a process is the reconstruction of Nowy Targ Square in Wrocław. The new functional and spatial structure of the square replaced the old one[5]. Thus, the existing frontages of the urban interior constitute the context for the new spatial arrangement. As a result of the implementation of the reconstruction project, a new compositional situation arose, which can be analyzed in terms of size and scale, structure, art etc. If there comes to any implementation decision, another compositional situation will be created in relation to the new square and surrounding buildings.

Spatial systems in which a new compositional form appears can be included in one of three following cases:

- the area creates a coherent whole in terms of composition and art; it is a case of a complex work, e.g. hierarchical composition;
- the object creates a specific, more or less conscious compositional game with the context; compositional relationships arise that can be analyzed as part of the resulting compositional situation;
- the object is accidentally inserted into the context, which does not change the fact that spatial relationships arise in this situation, which can be described using compositional terminology; it is a spatial arrangement that can be called an apparent composition situation.

3 The term "compositional situation" was to some extent inspired by the term "aesthetic situation" by M. Gołaszewska.

4 A certain analogy may be the method of researching works of art developed by E. Ponfsky: pre-iconographic description, iconographic analysis and iconological analysis [Sławińska 1979].

5 The reconstruction of the Nowy Targ Square in Wrocław was carried out as a result of an architectural competition organized by the Municipal Office in Wrocław in 2010. The authors of the winning project that was to be implemented are Roman Rutkowski and Piotr Guliński; *Nowy Targ Square in Wrocław*, architektura.muratorplus.pl/zycie-w-architekturze/2015/plac-nowy-targ-we-wroclawiu/1353/ (access: 2016.09.23).

What seems to be the key in the above distinction are the two following concepts – compositional awareness (designer's competences) and the intentionality of a creative act, which condition the possibility of qualifying specific features of an object or system as composition-artistic quality.

As part of the methodological concept of the situation, there are concepts that organize descriptions and analyzes, such as the boundaries of a compositional situation, a hierarchy of elements, compositional relations, individual artistic features of compositional elements. A compositional situation is also characterized by specific parameters regarding distance, size and number of elements.

In the research process of a compositional situation, its main components can be distinguished, which form the methodological sequence:

- description of the spatial layout,
- description of individual elements of the situation,
- quality analysis of plastic elements,
- analysis of compositional relations between elements,
- artistic interpretation of the relationship (artistic expression, style, etc.),
- aesthetic interpretation of the relationship (symbolism, object-place relationships, etc.).

The effect of the description and compositional analysis should be conclusions that, on the one hand, state certain creative attitudes in solving compositional situations, while on the other, they can indicate good practices in designing especially public spaces. In turn, the sum of analyzes of various compositional situations can be used to create typologies of compositional situations, theoretical models and to expand knowledge of the necessary spatial composition in teaching and creativity.

Two sculptures by Sebastian in the public space of Mexico City

The practical application of the research method described above is an analysis of two compositional situations in Mexico City, the capital of Mexico. The city has public spaces that are very diverse formally and culturally. In many places, architectural, urban and landscape structures are supplemented by artistic objects, mainly murals and sculptures. The introduction of intimate and monumental works of art enriches and modifies the compositional and artistic qualities of urban spaces. This is a characteristic feature of the cultural landscape of the Mexican capital. Two sculptures of the same author – famous Mexican sculptor Sebastian – set in two different places of the city created two different compositional situations. They will allow us to apply the proposed method of analysis.

Sebastián (real name Enrique Carbajal, born in 1947) creates monumental sculptures in Mexico and around the world.[6] His style is referred to as "emotional geometry." Huge geometrized forms are characterized by dynamic shapes, soft curves, weaves and penetration of elements, perforations. These forms are mostly one-coloured in strong colours, usually in basic colours – yellow, red and blue.

Sculpture *El Caballito* in Paseo de la Reforma (Fig. 1, 2, 3)

On one of the most representative intersections of the capital, the sculpture of Sebastian *El Caballito* ("Small Horse") has been standing since 1992, named by the author "Head of a horse" *Cabeza de caballo*, 1991. It is made of steel and covered with a yellow acrylic coating. The name of the sculpture, and indirectly its form refer to the historical monument that stood at this intersection since the mid-nineteenth century.

The current compositional situation is marked by three important urban axes forming a vast intersection (which until 1979 took the form of a roundabout – *Glorieta del Caballito*), monumental buildings at the corners of the intersection and the sculpture itself.

6 www.sebastianmexico.com/index.html (access: 2016.02.17).

Fig. 1., 2. Various views of *El Caballito* sculpture
Różne widoki rzeźby *El Caballito*

Fig. 3. Sculpture of M. Felguérez *Puerta 1808*, in the background the Revolution Monument
Rzeźba M. Felguéreza *Puerta 1808*, w głębi Pomnik Rewolucji

The place has its history[7]. At the intersection of two streets going out from the city centre a circular square was created, on which in the early 1850s an equestrian statue of the Spanish King Charles IV was erected, later commonly called *El Caballito* ("Small Horse"). Shortly thereafter, an alley was marked out from this square leading west to Chapultepec Castle, then the seat of Emperor Maximilian I of Habsburg. This avenue, gradually expanded to the model of European metropolitan boulevards, in the following decades became the most representative artery of the City of Mexico.

The intersection in the form of a roundabout (*Glorieta del Caballito*) was maintained until 1979 and the equestrian statue of the king (*El Caballito*) was moved to a new place in the Historical Centre after 127 years. The central place at the intersection was taken by a low round fountain. The new sculpture appeared only in 1992. However, it was set not in the middle of the intersection but on one of the northern corners in front of the newly erected tower called *Torre del Caballito*.

Within the intersection in the middle of the outlet of Juarez Street leading to the historic centre, another sculpture was placed under the name *Puerta 1808* by Manuel Felguérez (2007), which was created to celebrate the 200th anniversary of Mexico independence [Carvallo Robledo 2007, fig. 3]. It is lower, dark in colour and delicate in its openwork structure, so it does not compete with the sculpture of *El Caballito*. In contrast, the

7 *Glorieta del Caballito*, www.mexicomaxico.org/Reforma/reformaGlor.htm (access: 2013.08.23).

expressive form to some extent fits in with the abstract geometry imposed by Sebastian's work. It is prominent on the observation axis connecting the historical centre of the city with the monumental Revolution Monument on Republic Square located on the other side of the intersection at a distance of approx. 0.5 km (fig. 3).

El Caballito is visible from a greater distance only along the axis running north of Bucareli Street. From other directions it appears only at a closer distance. In these view openings, it clearly stands out with its vividness.

The cross point of these three communication axes creates a star-shaped intersection. A building with an individual form is situated at each of the six corners. The two tallest buildings, *Torre del Caballito* and *Torre Prisma*, are simple, slender blocks (cuboid and prism with a triangle base) with dark, glass facades. On the opposite side there is the post-modern *Meliá* building from the 1990s (now the *Krystal Grand Reforma Uno* hotel) with a step-shaped upper corner. The *El Moro* building (also called *La Lotería* as the business seat of *Lotería Nacional*) has the most extensive form, designed in the Art Deco style and completed in 1946. The symmetrical facade with strong vertical segments is emphasized by the slim central tower. The other two corners of the intersection are not distinguished by their form or size. Sebastian's sculpture must therefore compete with the formally diverse monumental architectural context.

The intersection is vast. The distances between opposite corners range from approx. 100 to 200 m. The light of the streets converging at the intersection is a distance from approx. 40 to 60 m. The highest building – Torre del Caballito is 135 m high. These figures show the spatial scale of the surroundings of the *El Caballito* sculpture. In such a spatial situation, the sculpture remains in compositional relations with the environment, which determine the compositional situation: relations of size, shape and matter.

First, the sculpture, which is 28 m high, is huge in relation to man, but small in relation to the nearby skyscrapers. However, it does not disappear visually because it is the only such clear element in the intersection space on an intermediate scale between the size of the buildings and the dimensions of greenery and urban infrastructure.

Secondly, the sculpture has an original shape. In spite of the competing buildings in the background, *El Caballito* stands out due to its high expression of form. Softly curved and overlapping angular segments of the composition create a sculptural form clearly distinguished from the relatively simple geometry of the environment. Soft lines in the surroundings appear only in the curvature of the facade of the El Moro building and in the building of one of the southern low corners. Stepped bevels are only found in the Kristal Grand Hotel building. Thus, the sculpture *El Caballito* as a compact weave of solids, walls and lines is significantly distinguished by the expression of shapes from the dominant orthogonal and diagonal order of the environment.

Thirdly, the sculptural matter also contrasts with the surroundings. In this case, Sebastian's work is made of steel sheet covered with an intense yellow acrylic coating. The pure colour of the sculpture makes it a very strong element of the spatial structure. It not only clearly cuts out from the background but also creates a strong colour contrast to other forms of the intersection (black skyscrapers, white El Moro building, pink façades of Kristal Grand hotels) and in relation to further gray urban landscape plans.

Sebastian's sculpture was made to order in a specific urban situation. Therefore, it should be assumed that all artistic decisions were made taking into account the existing conditions. Compositional relations are the artist's conscious spatial play in an urban environment. They constitute valuable experience in the field of integration of art with public space.

Sculpture *Colotl* (1980) in *Paseo de las Esculturas* (CCU) (Fig. 4, 5, 6)

The second compositional situation concerns a part of the area of the University Cultural Centre (CCU) in the south of the city, where the outdoor sculpture complex – *Paseo de las Esculturas* was placed. The exhibition between the monumental blocks of the centre buildings occupies a fragment of the area called Pedregal de San Ángel. It is part of a large lava field formed as a result of the eruption of the Xitle volcano in the 3rd century AD and covered with vegetation that has naturally developed on this soil.[8]

8 *El Pedregal (Reserva Ecológica del Pedregal de San Ángel)*, www.repsa.unam.mx/index.php/pedregal-de-san-angel (access: 2016.02.17).

Fig. 4., 6. Sculpture of Sebastian *Colotl*
Rzeźba Sebastiana *Colotl*

Fig. 5. Sculpture of Sebastian *Colotl*, in the background sculpture *Ave dos* (author: Hersúa)
Rzeźba Sebastiana *Colotl*, w głębi rzeźba *Ave dos* (autor: Hersúa)

The exhibition includes seven large sculptures authored by some famous Mexican artists[9], co-authors of the nearby monumental sculptural and landscape composition – *Espacio Escultorico* (1979), forming a concrete circle around a field cleared of lava vegetation.

In the case of *Paseo de las Esculturas*, the sculptures are placed freely among the bushes at distances that prevent direct composition relations. Each form maintains autonomy in its immediate surroundings. It has a separate form, structure, colour and artistic convention referring in an original way to the language of geometry. The sculptures viewed from different places, however, are next to each other in the field of view – sometimes several at a time – co-creating a special cultural landscape. These views emphasize the effect of the ensemble, which "Sculpture Path" is by definition.

In the case of such an exhibition, a compositional situation can be considered on two scales. On a larger scale, the compositional situation is defined by monumental architectural blocks, an area of natural terrain and a complex of 7 sculptures. On a smaller scale, each of the sculptures constitutes its own compositional situation as a separate creation.

9 *Paseo de las Esculturas o Sendero Escultórico de la UNAM*, www.vivaelsur.mx/2012/02/paseo-de-las-esculturas-o-sendero-escultorico-de-la-unam (access: 2013.08.26).

Sebastian's sculpture is called *Colotl*, which means "Scorpio" in Nahuatl. Like the other sculptures – "Snake", "Rabbit" or "Bird" – it refers by the nameand to some extent its shape to animals that can inhabit Pedregal. In this way, geometrized abstract forms acquire meaning as a symbolic representation of the local fauna.

The sculpture has a dynamic form consisting of three obliquely connected legs strongly supporting each other on the ground. The angular tin elements in blue stand out strongly from the floral background.

In this case, Sebastian's sculpture remains in compositional relations with the natural surroundings, with other sculptural forms (fig. 6), and with the nearby buildings. In each of these combinations, the dominant compositional feature is formal and colourful contrast. The sculpture stands out from the surroundings with its pure colour but it competes with other colourful forms. The geometrized dynamic form contrasts with the softness of natural matter as well as the massive geometry of the building and the different forms of the other sculptures.

All the above mentioned compositional relations adopted in the artist's assumption have an impact on the creative effect, which is the clear expression of the form. The compositional formula is the opposite of the idea of soft adaptation to the landscape context. The sculptural form is therefore intended to cause compositional and artistic tensions in an environment dominated in spatial and visual categories by the contrast between concrete architectural blocks and the vast, flat and monotonous landscape of Pedregal.

Conclusions

Two examples of analysis of compositional situations from Mexico illustrate how to study specific spatial systems. The conclusions resulting from these analyzes enrich the knowledge that can be useful in solving design tasks in similar spatial situations.

Compositional relationships can be defined *aposteriori* as a result of analyzing particular cases (case studies) or can be adopted *a priori* as creative assumptions. The methodological concept of studying the compositional situation is a proposal for a method of building knowledge about spatial composition in various scales and environments. In practice, this knowledge should be used by designers to formulate and verify design assumptions.

Order of space is an expression of a broadly understood consensus between various approaches to the phenomenon of space and the related diverse needs for its use. While order in the sense of functional order can be verified by logical reasoning, order in the sense of spatial order is relatively easily understood in terms of basic geometric orders. On the other hand, compositional relations as an effect of a creative process do not have to be based on simple geometric relations. This is proved by contemporary works of art and architecture reaching out in search of new qualities of artistic borders of chaos.

That is why relatively few scientific studies raise the problems of composition and art as a research area. These issues are based on assessing the quality of solutions, and these are often subject to subjective ways of seeing and understanding works by those who describe them. It is, therefore, the domain of artistic criticism rather than objective scientific analysis.

This fact, however, does not undermine the need to search for methods of description and analysis which are free from emotions and subjective assessments. It is a way of developing knowledge on spatial composition as universal, not entangled with creative emotions, sphere of designers' competence and substantive support of decision-makers.

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Sytuacja kompozycyjna: analiza usytuowania dwóch rzeźb w mieście Meksyk

Streszczenie: Opracowanie składa się z dwóch części. W pierwszej autor zarysowuje koncepcję metodologiczną badania jakości kompozycyjno-plastycznych układów przestrzennych, jakie powstają np. w środowisku miejskim, z udziałem m.in. obiektów architektonicznych i dzieł sztuki. Przedmiot tego typu badań został nazwany „sytuacją kompozycyjną". W drugiej części wykorzystuje zaproponowaną metodę badań do przeprowadzenia analizy konkretnych przypadków. Są to dwie sytuacje przestrzeni publicznych miasta Meksyk, w których zostały zlokalizowane rzeźby znanego meksykańskiego rzeźbiarza Sebastiana.

Słowa kluczowe: metodologia, kompozycja przestrzenna, przestrzeń publiczna, rzeźba, Meksyk

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Art in public space as a tool of social inclusion

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Summary: What would art be if it were not viewed by people and could not influence the environment? Without the audience and spectators, it would be nothing, therefore it should be accessible and "graspable" for everyone. Elements of art placed in urban space have always enriched the "urban tissue", providing man with many positive experiences. They enter into a dialogue with the city's inhabitants, contribute to the growth of the its potential, and at the same time, influence all the senses of human beings. Art in urban space influences the perception of its audience, encourages dialogue, and creates a platform for better understanding of people's needs and their functioning in the public sphere. It also plays an important role in the process of socialisation of the society, regardless of where it is exhibited.

Keywords: art, public space, integration, social inclusion, art in public space

Introduction

Public space, in which people live every day, has a huge impact on people. Nowadays, instead of galleries, art more and more often ends up in streets, squares, or promenades. Designers and architects, in order to reach their audiences, more and more often create unique and vibrant meeting points, complemented by elements of art. Public space is more and more frequently treated as an area for social exchange, where art is one of the ways of speaking out. Elements of art situated in urban spaces no longer surprise anyone, but constitute an integral part of the city's unique structure.

According to some theoreticians, urban space has lost its importance[1], and yet, everything indicates that this is not the case. Just the opposite, it has gained new momentum, becoming an excellent tool for building closer social ties.

According to Joseph Rykwert, a modern city, so diverse and full of different attitudes and needs, must have many faces and be multisensory.[2] Art creates its dimension through colour, texture, material, sound, or smell. It creates a symbolic image of a given place, responds to the needs of citizens, and helps to make the public identify with the 'urban tissue'. It perfectly decorates and beautifies a given area, triggering unusual aesthetic experiences in man.

Placing works of art in public spaces began as early as in the 1960s, when there was a clear increase in investors' interest in the humanization of urban environments. Contemporary public space in cities has been largely dominated by modern technological achievements, contributing to the creation of a structure with a dehumanized image. Elements of art placed in urban space have a positive impact, which is why contemporary artists use all forms available to influence and attract audiences. Nowadays, a bigger attention is being paid to well-designed, human-friendly urban spaces, where designers and city authorities are doing their utmost to make them ideal meeting places for socializing.

1 Por. K. Nawratek, *Miasto jako idea polityczna*, korporacja ha!art, Kraków 2008, s. 74
2 J. Rykwert, *Pokusa miejsca. Przeszłość i przyszłość miast*, Kraków 2013, s. 83

Camillo Sitte perceived the city and the surrounding space as a work of art, the phenomenon of which consists in skillfully composing a man-friendly urban space. Introducing elements of art into the city space contributes to its attractiveness, raises the standard of living, and brings residents closer together. In order to meet citizens' needs in an appropriate way, it is important to treat the city as a complex system comparable to a living organism[3], where art is a key element contributing to the creation of a unique urban space.

This paper aims to show the importance of art in building social relations and the role of artistic media that are displayed in urban space in the process of social inclusion.

Art in urban space

Art is undoubtedly a social phenomenon, due to how it is created and what it is used for. Its social character concerns on the one hand the origin of its products, and on the other the impact on society. Stanisław Ossowski distinguished three basic functions of art: cataractic, bond-forming, and transformational, the sum of which contributes to the upbringing of society in the "spirit" of art. The first of them is closely related to the direct experience of artistic reality ("here and now"), which influences emotional and intellectual stimulation. The bond-forming function, in turn, manifests itself in the development of social relations, going beyond what is "here and now", supporting the process of shaping the social functions of people and their ability to communicate with each other. For this reason, it can be a factor that harmonizes social relations and counteracts conflicts. Art protects against the stiffening of the worldview, encourages independence in its assessment, and shapes the creative attitude towards reality both for its creators and recipients.

Marian Golka[4], devotes a lot of attention to the social functions of art today, as he attributes two of its most important functions, such as modelling social values and social ties.[5] He also distinguished co-existing functions, such as aesthetic, hedonistic, therapeutic, expressive, communicative, magical, ideological, educational, cognitive or economic, which prove "that art is an aspect of social life and not something separate from it." [6]

Artists continue to go beyond the walls of galleries and other artistic institutions using public space to expose their works. This allows them to communicate with different social groups through artistic means.

Cher Krause Knight believed that the public character of art depended primarily on its relations with the viewers, the influence it exerts on them, and the influence they exert on it. Therefore, it is perceived primarily through the prism of communicative, interpretive and assimilating functions it has on the audience.

Art in the public space has always accompanied man, as it is created by people and for people. It can be found in Greek statues, triumphal arches, or ancient Rome, where its individual elements were placed in temples or on city squares. It functions in everyday life as a sculpture, statue, installation or a canvas which are made of various materials such as stone, metal, wood and glass, or as an element of everyday use. Public art "is shaped by the artist's intentions, the requirements and wishes of investors, the urban context and the demands of the collective addressee with aesthetic needs that are difficult to identify".[7]

Confrontation with the viewer is a breakthrough moment for a work of art, as it tells a certain story of the presented work. Some theorists, as a category of art in public space, distinguish public art determined by the relations between public art and public space,[8] integrating the existing historical, social, architectural and urban reality. Art becomes public because of the problems it raises. It is something unchangeable that requires the involvement of the creator and the viewer. It often serves to commemorate important figures and events, including painful and traumatic ones. It touches upon important problems of social exclusion, sexual orientation, and numerous diseases of civilization. Its main task is, first of all, to instill desired behaviours, ideologies, and social attitudes towards the surrounding reality. It helps to build a social urban identity, being an element of identification, which is often closely linked to the area and the people living there. This kind of art fits into

3 Ibid. s. 27

4 M. Golka, *Socjologiczny obraz sztuki, Poznań*, Ars Nova, 1996, s. 190–191

5 Ilab s. 197

6 Ilab s. 190

7 H. Taborska, *Współczesna sztuka publiczna. Dzieła i problemy*, Wiedza i Życie, Warszawa 1996

8 These definitions are dealt with in particular by Prof. Halina Taborska in her research activity.

the existing context of the place. The sculpture of Monika Sosnowska "Krata" in the Bródno Sculpture Park can serve as an example. The material from which it was made (reinforcing bars) resembles metal bars with which the inhabitants of the blocks protected the ground floors of their houses, playgrounds, or service points.

Art in the public space also has the function of promoting a given place, becoming an easily identified sign that attracts tourists. A large part of it often serves as a signpost, which helps not only to find a given place on the map, but also to assign the work to a given city. An example of this is the Stravinsky Fountain at the Centre Pompidou in Paris, which is part of the identification of a given place.

Since the city is a natural human environment, the care for the aesthetic qualities of buildings, streets and squares, has become the main task of architects and urban planners. Since time immemorial, art has served man, evoking both positive and negative emotions. Parks, gardens, alleys and promenades are perfect places to present art that brings people closer together, allowing them to stop for a moment.

Nowadays, art is becoming an element more and more often used by architects, who create a new, humanizing image of the city. Introducing elements of art into the city space improves the quality of life of its inhabitants, presenting its beauty, sublimity and uniqueness. Introducing elements of art into the urban tissue increases the city's potential and maked the individual identify with the given place, building closer social bonds.

Elements of art increasingly appear on the occasion of contemporary events promoting cities and entire regions, such as those created as part of the European Capital of Culture Days. Saturation of public space with art can also be an important element of urban development strategies, which can be observed on the example of the city of Lublin. Introducing elements of art influences the shaping of the cultural landscape of the city, at the same time favouring its revitalization and reconstruction. The contribution of muralistic art to the renovation of residential districts can be presented on the example of Lublin or Łódź. (Figures 1, 2, 3) The murals, using symbolic elements, often raise important social issues and thus differentiate the architectural urban tissue. They are critical of the political situation of a community and make the building "raise its voice" in public debate. Painted murals often draw attention to a social problem, being a typical articulation or manifestation activity. An equally important element is their type and context oriented towards the social change caused by entering the public space. The processes of social exclusivity and inclusion, which are the area of artistic intervention and cooperation, put the creators in the face of the necessity to change their actions in a way that eliminates barriers to social participation. Frequently, artistic activities carried out in public space become icons that permanently enter the pop culture circuit, becoming objects identified with a given place.

Fig. 1. The mural located on Lubartowska street in Lublin, 2017, author's photo

Mural znajdujący się przy ul. Lubartowskiej w Lublinie, 2017, fot. autora

Fig. 2. The mural located on the wall in Kalinowszczyzna estate in Lublin, 2017, author's photo

Mural na murze os. Kalinowszczyzna Lublin, 2018, fot. autora

Fig. 3. The mural located on the wall in Łódź, 2017, author's photo

Mural na jednej ze ścian w Łódzi, 2017, fot. autora

In the 1960s for the first time appeared postulates that art should be "released" for the benefit of the public space outside the gallery exhibition, close to the random viewer and the local community. The art of those times became a political and social background, "fighting for" civil rights of minority groups, racial groups, women, or people excluded and unjustly treated.

One of the first artistic manifestations of rebellion and social discontent in the modern times was the extensive activity of large-format wall paintings, called murals. The current of those times was called social art, being one of the early forms of art in public space. The going out of artists with their work outside the galleries, contributed to shaping the conviction that art can fulfil many social and socializing functions.

The art of the 1960s presented in the form of numerous murals, sculptures, and mosaics was created by the community, and their performer was the artist himself. Elements of art began "flooding" squares, parks, backyards or housing estates, presenting the real problems of a given community, and in particular the group of excluded people.

The art of the 1980s presented in public space was a kind of barometer of social moods, which was not always accepted by its recipients, but was able to arouse emotions. It counteracted visual monotony by improving the aesthetic quality of stations, airports, railways, parks, and squares.

Nowadays, thanks to introducing elements of art into the urban tank, given places do not become "soulless" and associated with modern and "inaccessible" architectural and urban space. Characteristic signs of art give a visual identity to a given place, as well as aestheticize and beautify the space, satisfying the human need to commune with beauty. Elements of art are an excellent landmark. They are also used on hospitals and other public buildings.

Art in urban space takes on various forms, where on the one hand it creates "street art", in the form of multi-format murals, and on the other hand, it presents full-size installations that enliven the "urban tissue". Art in different forms brings peace and serenity, to many people, increasing their sense of satisfaction with their everyday life and teaching them the openness to others. At present, elements of art in urban space can be encountered in many places in Poland or abroad. (Fig. 4,5,6) Thanks to the spread of art in urban space, it is no longer necessary to visit museums to admire it, but it is enough to keep one's eyes wide open and discover it in everyday life.

Fig. 4. The sculpture located in front of the Samodzielny Szpital Kliniczny on Jaczewskiego street in Lublin, 2017, author's photo

Rzeźba znajdująca się przed budynkiem Samodzielnego Szpitala Klinicznego przy ul. Jaczewskiego w Lublinie, 2018, fot. autora

Fig. 5. The sculpture located in a predestrian way in a small town Alloa in Scotland, 2018, author's photo

Rzeźba znajdująca się na deptaku niewielkiego miasteczka Alloa w Szkocji, 2018, fot. autora

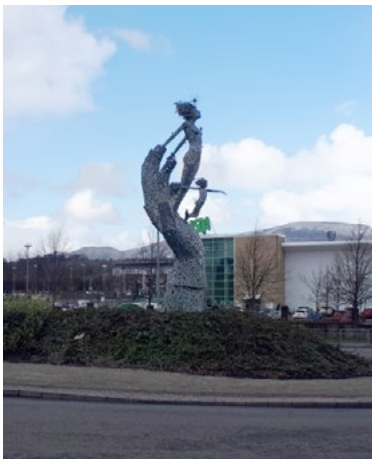

Fig. 6. The sculpture on a hill, Glasgow, Alloa, Scotland, 2018, author's photo

Rzeźba znajdująca na rondzie niewielkiego miasteczka Alloa w Szkocji, 2018, fot. autora

Plazas, alleys, promenades and squares create places conducive to human interaction, where art in space creates a centre of understanding, provoking the exchange of views and the expression of social opinions. A creative use of urban space in a simple way can make it unrecognizable, giving a distinctive character to even the most inconspicuous places.

Art and integration (inclusion)

In literature, there are many views on integrative upbringing through art. Irena Wojnar believes that it engages the whole personality of the viewer, influences its comprehensive development, and maintains the desired balance between modelling the mind and the development of feelings and imagination.[9]

Herbert Read considered art to be an important element that shapes an integral human being, develops mental and social skills and the ability to establish social contacts.[10] The above statements confirm the immense power and values of art, which comprehensively shapes people in every sphere of intellectual experience, as well as their moral and social attitudes.

The concept of integration (inclusion) can be explained as a process of integration into a certain, essential part of the society, usually of a diverse and minority group of people that is characterised by mutual respect and has identical conditions for maximum development.[11]

The concept of social inclusion is a relatively new form of social integration; therefore solutions are still being sought that could contribute to the building of social identity. One such initiative includes art exhibited in urban space, which favours meetings and exchange of views, thus integrating society and creating a more tolerant and cohesive community.

The integration process brings benefits for the entire local community, contributing to the acquisition of cultural, normative, communicative and functional skills and abilities. It develops in people the ability to communicate in a group, establishes interpersonal ties, and teaches how to act together and build specific behaviors.[12] The main objective of social integration is to create in a natural social environment conditions for development, learning, work, and spending free time for all citizens.

Art in the perceptual dimension carries an enormous power of educational impact, as it teaches sensitivity and tolerance towards others. It promotes communication, allows for the elimination of verbal and sensory experiences, deepening relations among members of society. This includes various artistic creations in the form of sculptures, paintings or installations, as well as all cultural events that encourage social gatherings. In each type of artistic activity one can see something separate and original, something that was shaped by the artist's personal experiences.

A very important part of the integration process is communication, which is one of the fundamental elements necessary for social inclusion. Introducing elements of art into the public space plays an important role in the process of socialization of society, being an important link conducive to meetings and exchange of views of different social strata.

Art, both directly and indirectly, affects the audience and plays a major role in the integration process. An important issue raised in this study is recognizing the mechanism of this impact as well as understanding the integrative function of art and its artistic means in their richness and complexity. The influence that individual fields of art exert on man in the process of integration, differ in a fundamental way and have a different impact.

Art directed towards viewers, often strongly influences their emotional and rational sphere. A given work of art in its integrative function may refer to the emotions or the reason of the recipient. Art often operates on the basis of emotions and stereotypes, which determine the power, duration and impact it has on the viewer. Reception or participation in various artistic activities often combines free time and entertainment, which allows breaking away from everyday duties and escaping into one's dreams. The basic factor determining the phenomenon of integration, is knowledge and a deeply integrated system of values, both of which contribute to its deepening and increasing the durability of the social ties that have arisen.

From the historical point of view, integration or assimilation with art and through art is usually one-way. Each type of art has its own specificity, which is determined by the "artistic creation" and influences the formulated conclusions. The above remarks show how many issues are related to the integrative function of art and how complex and incomprehensible this problem is.

9 I. Wojnar, *Teoria wychowania estetycznego – zarys problematyki*. Państwowe Wydawnictwo Naukowe, Warszawa 1980, s. 12

10 H. Read, *Wychowanie przez sztukę*., J. Bielecki, *Osobowość młodzieży niepełnosprawnej z zaburzeniami wzroku, słuchu, ruchu i mowy*. Pallotinum, Warszawa 1990, s. 178–182

11 https://pl.wikipedia.org/wiki/Integracja_spo%C5%82eczna. [dostęp: 19.12. 2016]

12 J. Zabłocki: *Integracja szansą wychowania nowego pokolenia*. Wydawnictwo Naukowe NOVUM, Płock 2002, s. 76

Art as a social dialogue

Elements of art in the form of monuments, sculptures, fountains, or architectural decorations have always enriched public space while commenting on social life. Introducing elements of art into the urban tissue provides many positive aesthetic sensations, which contribute to the growth of the city's potential by creating a "flexible creation" that fits perfectly into every type of urban space, while at the same time, affecting all the senses of human beings.[13]

According to Ilya Kabakova, audience-oriented art is one whose central point of interest is the recipient not the work of art itself, which means that the artist creating a given piece of work concentrates mainly on his or her audience. The artist publicly takes on the role of a medium: "he/she does not try to dominate or terrorize places, but wants to listen to them, to tune in to the voices, sounds and music that fill this particular place". [14]

Introducing elements of art into urban space "humanizes" it, thanks to which it becomes more friendly and accessible to all residents. The main task of art is the subconscious change in man's attitudes or ideas. By exhibiting the work in the urban space, the artist creates an opportunity to change attitudes in people, at the same time providing them with the means they need. The transformative role of art equips people with intellectual and practical tools for change. It is often recognized as a form of civic activity that requires a redefinition of the idea that artistic, social, and civic thinking are separate, as well as the recognition that each individual is capable of creative thinking and taking actions in his or her environment.

Generally speaking, art allows people to express their negative and positive opinions, helping to change their current situation. Participation in cultural and artistic events allows a free exchange of views and an important integration with a community of similar interests and views. In a creative way, it supports cognitive processes and has a positive impact on the viewer and his/her surroundings.

The aim of every artistic creation is to show a certain truth. Art "speaks" for itself, materializes the value of truth and beauty, and allows to enter the world of the artist's experiences. It is particularly important for people with disabilities, for whom it is one of the most important channels of communication with the outside world. This is because "a work of art takes us by the hand and leads to what is hidden deeper, to the essential truth. It shows us that truth with its entire itself. In a nutshell, it shows the wonderful synthesis, which allows the viewer to reverie."[15]

Fig. 7. Cultural night in Lublin 2017, author's photo
Noc Kultury Lublin 2017, fot. autora

Fig. 8. Cultural night in Lublin 2018, author's photo
Noc Kultury Lublin 2018, fot. autora

Social art associating citizens may concern different areas of artistic creativity and take place in different fields of social and civic activity. The city of Lublin may serve as a good example for social gatherings in public space. The creative activities of the city authorities undertaken in recent years are conducive to social integration and are implemented through cyclical organisation of cultural and entertainment events taking place in

13 Op. cit., J. Gehl, *Miasta dla ludzi*,...s.178–179

14 I. Kabakow, *Projekt publiczny albo duch miejsca,* w: E. Rewers (red.), Miasto w sztuce – sztuka miasta, Kraków 2010, Universitas, s.347

15 J. Tichner, *Etyka solidności,* Wydawnictwo Znak, Kraków 1981, s. 42–44

the city space. During the Carnaval Sztukmistrzów (the Carnival of the Artsmakers) or the Night of Culture, the public space of peaceful urban life changes into an illuminated boulevard of urban art, arousing the admiration of passers-by. (Fig. 7,8) Beautifully landscaped spaces that promote art with precisely designed details, provide many positive experiences that bring together, as well as integrate, and assimilate the community.

A given piece of art is not always accepted by the audience, but it always evokes emotions and remains in the memory of the recipient for a long time. An example is the Orbit Tower, created by artist Anish Kapoor and engineer-architect Cecil Balmond in London. The one hundred and eighteen-metre-high construction, consisting of a steel tower twisted into strange shapes, compared by many to the tower of Babel or Eiffel, was criticised for almost everything. With time, social resistance turned into acceptance and a kind of social pride in such a unique public art object, which became characteristic of London.

Since the 1980s, public art has also found an area for itself to counteract the visual monotony and vagueness, and to improve the aesthetic quality of stations, airports, underground networks, and railways. (Fig. 9) Thanks to this, public places stop being soulless and associated only with modern architecture or the existing order, and they become more open to people and foster social bonds. Elements of art in public space give visual identity to places that are not defined or monotonous, sometimes too ordered. They often aesthetize and make social life more attractive, at the same time satisfying the need of people to interact with beauty.

The presentation of art in public space is based on the links between the institutional world of art and public space and is more and more often presented outside the walls of the gallery. Art collections presented in squares and streets, courtyards, backyards or buildings are often a prelude, an invitation to an exhibition or other cultural event, presenting the motifs that are present in particular urban space. (Fig. 10) Art, to a large extent, feeds the perspective of globality and localness in cities, representing a symbolic and cultural surplus of the landscape.

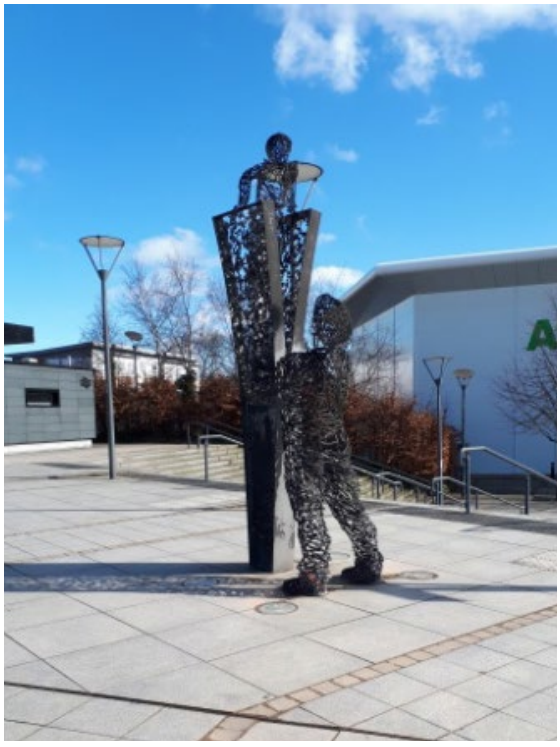

Fig. 9. A steel sculpture located next to the railway station in Alloa, Scotland, 2018, author's photo

Stalowa rzeźba znajdująca się przy jednej ze stacji klejowej w Alloa w Szkocji 2018, fot. autora

Fig. 10. Paper sculpture in the urban space, which previewed exhibition in one of the gallerie, Florence 2018, photo Katarzyna Kielin

Rzeźba z papieru w przestrzeni miejskiej stanowiąca zapowiedź wystawy w jednej z galerii, Florencja 2018, fot. Katarzyna Kielin

A public space is an area where actions are aimed at building understanding between its users "(...) is a place that belongs to everyone and an area where non-violent discussion is possible, where in the public sphere, the legitimacy of disputes over socially important and unimportant matters can still be recognised."[16]

Both consensual and agonistic visions of the public sphere treat public space as one of its dimensions, which implies that it is governed by different laws than private space. We can also distinguish many semi-public spaces, such as backyards, playgrounds, housing estate interiors or even the facades of buildings that belong to private owners or housing communities. Introducing elements of art into such spaces, brings together and assimilates the community living there, who often use it as an element of discussion. More and more often closed backyards are also becoming a space for artistic activities, which leads to the change of their status into a more open, "friendly" and socially acceptable form. (Fig. 11)

Fig. 11. The backyard located in one of the gates on Lubartowska street in Lublin, 2017, author's photo

Podwórko znajdujące się w jednej z bram przy ul. Lubartowskiej w Lublinie, 2017, fot. autora

Urban space is not a public space if it is not socially used, and its status is never permanently defined or specified. Jeb Brugman, describing the phenomenon of Barcelona, presented it as a city that could serve as a model for others due to the intensity of social life in common (urban) spaces. In recent years, the boundary between what is public in art and what is excluded from general use, has shifted dynamically.

Art as a public space fulfils a specific function, providing a shade or resting place, offering some kind of relaxation. Thus, it initiates physical and bodily interaction with the recipient, which constitutes its public character. Thanks to people, it becomes more "accessible" and does not lose its public character, serving man and becoming "art in public space".

Art as a public space has one more important application that directly refers to the social and civic functions of art. It is the creation of "social" spaces, conducive not only to interaction with art, but also to interaction with other people in this space.

At present, the designers who manage empty urban squares with greenery, benches or sculptures, create places conducive to "being with each other", whose public nature is connected with the function of socializing the recipients. They unite people in a physical and symbolic way, creating modern agora, accessible to all citizens. [17] Works of art placed in urban space create a friendly environment in which people communicate and take joint actions for social use.

Art provides an opportunity for dialogue and balanced communication between different social groups. It influences the social structure, going in the direction of changing the rules of social exclusivity and inclusion. Thus, dialogue in art serves to establish intercultural contacts in the society, which are treated as an important

16 K. Franczak, *Demokratyczny potencjał sztuki w przestrzeni miejskiej, w: O miejskiej sferze publicznej. Obywatelskość i konflikty o przestrzeń*, M. Nowak, P. Pluciński (red.), korporacja ha!art, Kraków 2011, s. 260- 261

17 K. Szreder, *Sztuka publiczności*, „Res Publica Nowa", nr 4, 2008, s. 42–51

remedy for the persisting phenomena of [...] stereotyping, racism, xenophobia, intolerance and discrimination. Contemporary artists more and more often turn out to be the sender of a committed message in favour of creating a communication situation in which the audience would be involved. Seeing in art the unexploited possibility of communication not so much with the recipients as between them, the artists create participatory, interactive projects based on dialogue and cooperation. They are focused on creating a context conducive to communication, aimed at solving non-artistic problems.[18]

Every kind of art, not only has the right, but in a way, also the obligation to penetrate new areas and cross borders. A 2010 study on the social impact of art in public space shows that people taking part in artistic projects (e.g. Paweł Althamer's "Rubber" 2010) rooted in the city space, trust the artist much more than they trust city authorities, architects, or non-governmental organizations. The persons surveyed noticed the enormous potential of art, considering that artists should be the first to "diagnose" urban space and intervene in it. At the same time, they emphasized that it is art that should lead to social discussions, taking the viewer to another level of understanding.[19]

Art in urban space often gives a given place a new value, and increases the capital of the city by removing the unfavourable opinion about it. Many artistic projects carried out in potentially attractive districts of the city, lead to the improvement of their quality and strengthening of neighbourhood ties. Paweł Althamer's project "Common Concern" can serve as an example here. (2010), which resulted in the renovation of a staircase in a block of flats at 13 Krasnobrodzka Street in Warsaw's Bródno, carried out together with its residents. A neglected staircase transformed into a spacecraft as a result of a discussion between tenants, which resulted in strengthening neighborhood ties. The renovation was preceded by a series of other actions, which effectively promoted the implementation of the project. Intervention in a common public space has a positive effect if it is part of a long-term process based on local community cooperation.[20]

All creative activities make the inhabitants aware that it is worth creating art in order to improve social conditions of living. Placing elements of art in open public spaces is meant to convince people that both the artist and every inhabitant can influence the appearance, infrastructure and character of the place where they live.[21] The priority is therefore to work together with the local community of the artist placing his works in a space accessible to all residents. Their main aim is not only to work with people, but to draw attention to an important social topic that contributes to the social exchange of views.

The socially important issues that are often raised in the works of artists are attractive topics that lead to bigger involvement of people. Art dealing with socially important issues does not in itself lead to a solution of the problem, but calls for a discourse that contributes to its solution. It turns out, however, that artistic projects which strongly interfere with the area used by a given community and revitalize it, are very few in number.

By raising socially relevant topics, which often continue in a complex public debates or other forms, they contribute to broadening social ties and exchanging of views. Concern for the continuation of socially important projects should become the duty not only of artists, but especially of the whole society, which contributes to their creation. Otherwise, the artists' right to enter squares, streets, estates, and backyards that are inhabited by people who are allowed to refuse their use as the material for art, could be challenged.

Conclusions

Art in urban space takes on various forms. On the one hand it creates "street art" in the form of multi-format murals, sculptures or monuments, and on the other hand it presents full-size installations that enliven the "urban tissue". For many people, art brings peace and serenity, teaches openness to others and their needs, ensuring their satisfaction with everyday life. At present, elements of art in urban space can be found in many

18 A. Sadowski, *Uwarunkowania dialogu międzykulturowego na pograniczach*, *„Pogranicze. Studia społeczne"*, nr 21, 2013, s. 89–105 (s. 94)

19 J. Erbel, K. Herbst, *Sztuka w przestrzeni publicznej.* Raport z badania, w: Liberated Energy, J. Baranowska, P. Sztarbowski (red.), Instytut Teatralny im. Zbigniewa Raszyńskiego, Warszawa 2011, s. 154–171

20 M. Iwański, R. Jakubowicz, *Rewitalizacja czy gentryfikacja poznańskiego Chwaliszewa*, „Przegląd Anarchistyczny", nr 12, 2011, s. 257

21 "O projekcie", http://lipowa.org/ , [data dostępu: 28.08.2011.]

cities in Poland or abroad, where they constitute an excellent form of social understanding, which contributes to the deepening of social ties.

Analyzing the examples presented above, it is possible to draw important conclusions concerning the use of art as a tool of social inclusion. The exhibition of art itself strengthens the sense of exclusion and alienation, especially when it is incomprehensible to the viewer. Action for social inclusion through art requires an in-depth recognition of the social context and should take place with the participation of the given social group with which it is associated. Art serving social inclusion should create situations of communication and dialogue over existing social divisions, be subjective and creative, and the effects of its actions should be made public.

Creative activity is a strong argument for integrating and socialising an individual person into society. Man, being a social being, cannot live in loneliness and art allows him to fill this space by being an open form of expression. It enables a person to belong to a given community, teaching him or her of the understanding of others and allowing them to experience the world with all the senses available. Active participation in cultural events creates an opportunity for inclusion into a given social environment, stimulates imagination, develops sensual and tactile sensitivity, and promotes creative development, becoming an excellent form of social existence. The reception of a work of art with the participation of other people expands the scope of personal activities and respect for others.

Art is a very important tool for dialogue with reality, creating an opportunity to express what is hidden in everyday life. This kind of creative activity has a basic task to stimulate the viewers to reflection by touching upon issues related to tolerance, equality, corporeality or the place of a human being in society. A type of creative activity devoted to social problems in psychological, existential or aesthetic contexts, is a very important issue in the process of socialisation and better interpersonal communication.

Art in the city space creates a platform for a better understanding of human needs and functioning in the public sphere. Despite many years of research and observation, the question of the importance of art in human life and functioning is still not fully explored. However, it is crucial to state that it plays an important role in the socialization process, regardless of the place in which it is located.

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Origins of the Kalinowszczyzna district in Lublin: history, design principles and current condition

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Abstract: Lublin developed rapidly at the turn of the 1960s and 1970s. Large residential districts were designed on rural areas surrounding the city. Lublin was expanded in almost every geographical direction, in accordance to the principles specified in the 1959 city master plan. The Kalinowszczyzna district was located in the north, covering local hills and ravines, and replacing the former farm and manor it was subsequently named after. The housing estates constructed there were erected mainly by means of prefabricated elements, and included both flats and shops. They also played cultural and administrative functions. The plan's implementation was launched in 1963 and came to an end in 1980s. Kalinowszczyzna is currently one of 27 administrative districts of Lublin and constitutes an essential part of the city.

Keywords: concrete slab, multifamily housing architecture, prefabrication, modernization, revival, humanization, urban planning, Kalinowszczyzna, Lublin

Historical background

The area of current Kalinowszczyzna is greatly important from the historical, functional and landscape-related point of view. The name, given in the 19th century[1] to mark the administrative area of the district, comes from the name of the land owners: the Kalinowski family. The district is currently informally referred to as "Kalina". It also used to be called "Firlejowszczyzna", as Zbigniew Firlej, a regional governor, would move his settlers there in the 17th century. Its other names include "Przedmieścia Lwowskie"[2] and "Słomiany Rynek"[3]. The Lublin suburbs, known until the 18th century as Przedmieście Lwowskie[4] constituted an important, independent and well-functioning settlement due to its location close to the high road leading to Lviv[5]. There are still visible traces of the past colony located in-between the Bystrzyca and Czechówka rivers, which can be identified both on the central Lwowska Street and on the Słomiany Rynek street, tha latter one being a reminescence of the historic town trade square. The area is also a trade-oriented one nowadays, while the main trade location is the local out-of-use football stadium. Building in Kalinowszczyzna was determined by the road system from Lublin towards the Bystrzyca bridge. Some of these roads have been preserved until this day, in the form of the following streets: Sienna, Towarowa, Kalinowszczyzna and Białkowska Góra[6]. In turn, the Saint Florian's roadside shrine is the only present-day reminescence of the once-existing Floriańska street.

1 This is the name it appears under in the J. N. Łącki city plan – after: teatrnn.pl – day of access: 01/11/2018
2 The "Lviv Suburbs" in literal translation
3 The "Straw Market" in literal translation
4 Singular of the "Lviv Suburbs", the "Lviv Suburban Area" in literal translation
5 Przesmycka N., 2012, Lublin : przeobrażenia urbanistyczne 1815- 1939, Lublin University of Technology, Lublin, p. 32–33.
6 Michalczuk S., 1973, Kurier Lubelski, no. 135, Lublin, p. 3.

A number of Kalinowszczyzna places and buildings is of great architectural and cultural value. For instance, a post-Augustinian monastery (erected in the years 1647–1667 and expanded in 1685)[7] together with the Saint Agnes church, constitute an outstanding example of the Lublin Renaissance style (with Baroque elements). The monastery is an alement of the city skyline, well-exposed on the hill and perfectly visible from far away. At the same time it is an excellent scenic viewpoint facing the old city hill. Another, post-Franciscian monastery erected in the years 1626–1693, is located at the beginning of the Kalinowszczyzna street, at the bottom of the Grodzisko hill. Both monasteries used to be landmarks in the city landscape, which is no longer the case due to the urbanization processes of the 1970s resulting in a new residential area with simple and raw style of 11-storey buildings aggressively dominating the skyline.

Fig. 1. The skyline of the Kalinowszczyzna district – view over the Saint Agnes church. Author: Michał Dmitruk

The current Kalinowszczyzna housing area was referred to by the Lublin Jewish community as "Wola" in the 17th century when the Jewish municipality existed. There was a synagogue and a 16th-century cemetery (being the oldest cemetery in Poland) located on the Grodzisko hill (currently neighbouring the post-Augustinian monastery). In the 19th century, Kalinowszyzna played mainly the commercial service and trade functions, with e.g. Pejsach Brykman, Lejzor Lidzki and Szmul Ajchenbaum tanneries. An old paper mill was replaced by the Krauze mill[8], preserved until this day. The current Salesian church located at the crossing of the Lwowska and Kalinowszczyzna streets once served as the cloth factory.

A number of undesired factors influenced the development of Kalinowszyzna. At the same time, the Jewish community became poorer. In 1655, the settlement and its monasteries were completely plundered by the Cossack army, while in 1831, the majority of facilities were burnt down due to the reckless operating with fire by the Russian armed forces. Once the treaty of Zamojski was signed in the 19th century, the prestige of Lwowskie Przedmieście decreased. While trade was continued, it lost its significance due to lower transit.

7 Miłobędzki A., 1980, Architektura polska XVII wieku, Państwowe Wydawnictwo Naukowe, Warszawa.

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Fig. 2. View at the Our Lady, Supporter of the Faithful church and the "Grodzisko" hill with Jewish cemetery. Year 1964. Author: P. Krassowski – public domain.

In the 1960s, large housing estates with commercial service centres were erected, according to the master plan of 1959 by the The Urban Planning Office of the Municipal National Council[9] in Lublin led by arch. Romuald Dylewski[10]. Architects: Rita and Tadeusz Nowakowscy were the authors of the 30-lecia PRL[11] housing area (1969–1975) design. The design included 19 buildings later inhabited by circa 5,000 people living in 1,706 flats. In turn, the Niepodległości[12] housing estate's construction was launched in 1972, resulting in 30 housing buildings (high-rise and medium-rise ones, inhabited by 6,500 people living in 2,318 flats). The construction of modern, concrete-slab-buildings completely changed the ambiance and landscape of the area, from a cozy, small-town one to a big-city district, well-established in the city skyline. For instance, the gorge, later constituting the 30-lecia PRL housing estate's compositional axis, was once filled with the small Muchawiec river neighbouring timber houses surrounded by gardens and orchards. These were either subject to natural degradation or destroyed on purpose and replaced by the housing estate infrastructure.

The district is currently composed of four housing estates: Osiedle Kalinowszczyzna, Osiedle 30-lecia, Osiedle Niepodległości and Osiedle 40-lecia. There are also large service and administration pavillions in the district centre. The 30-lecia housing area hosts a Roman Catholic cemetery.

9 Zespół Pracowni Urbanistycznej MRN in Polish

10 Gawarecki H., Gawdzik C., 1964. Lublin, krajobraz i architektura, Arkady, Warszawa, p.77.

11 "30 years of People's Poland" in English

12 "Independence" in English

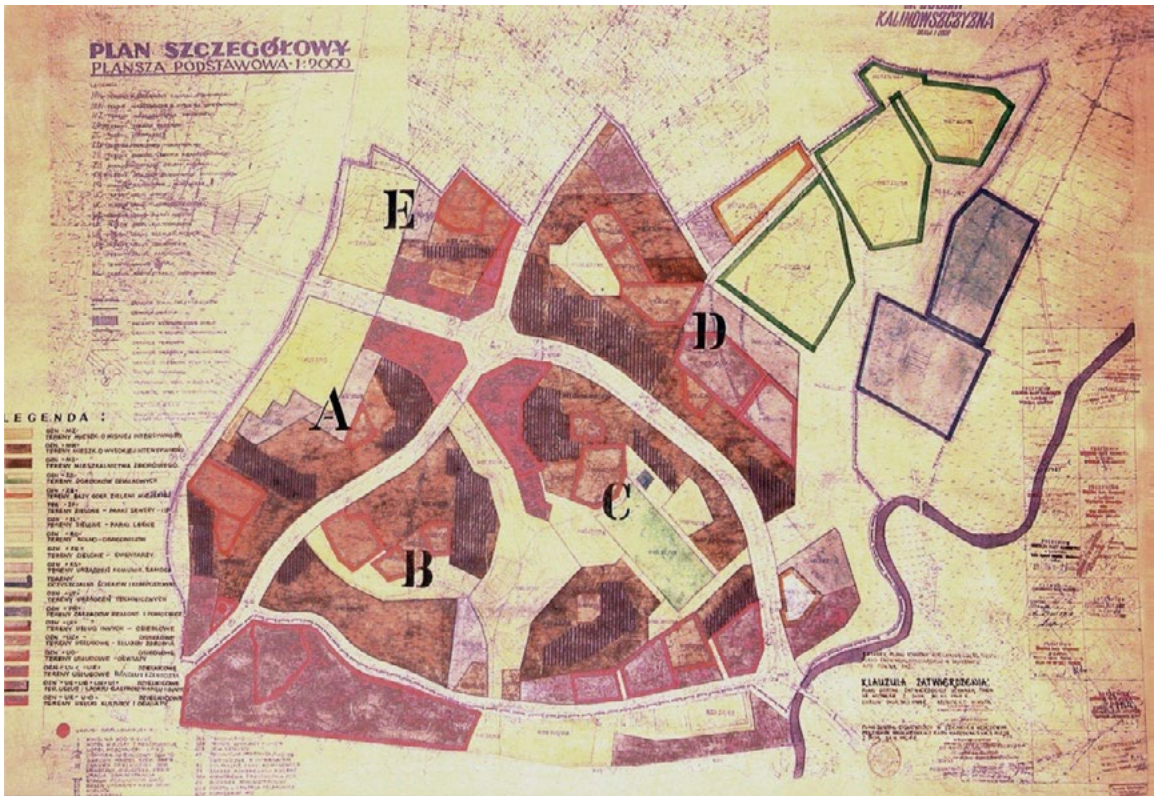

Fig. 3. The division of the Kalinowszczyzna district into housing estates, according to the detailed plan of 1964. Source: Archive of the City Council in Lublin.

Original design principles

In 1959, the Economic Committee at the Presidency of the Council of Ministers approved the Lublin Master Plan developed by the The Urban Planning Office of the Municipal National Council led by arch. Romuald Dylewski. This constituted the legal basis for creating a new district – Kalinowszczyzna. The plan's key element was the creation of large city districts with their own service, trade and administrative centres. They were supposed to respond to the needs and requirements of the rapidly-developing city, which the central district alone could not meet[13], as specified in the analyses. In addition, the need to enlarge the city administrative borders, as well as the degree of enlargement that could be sufficient and optimum were subject to a debate.

Consequently, the location of two industrial disctricts, i.e Tatary and Wrotków, was set, similarly to six housing areas, including Kalinowszczyzna[14]. As Figure 4 shows, each new district had a commercial centre for the area inhabitants. According to the plan's author, arch. Romuald Dylewski[15], the initial plan to have these centres was successfully carried out only in the LSM district along the Tomasz Zan street. That notwithstanding, a clear and well-functioning central part is also visible along the Gen. Władysław Anders avenue in Kalinowszczyzna (Fig. 5) where multi-storey commercial buildings with terraces subserving pedestrian traffic are located.

The original plan was very well received, which was mainly due to conducting meticulous analyses of the previous plans, selecting proper solutions and rejecting those which were in conflict with the natural lanscape or up-to-date at that time city development trends of Western Europe. The development of transport and communication was also included in the plan. The lengths of pedestrian routes within housing areas were optimised.

13 The same argument was made later by a renowned architect and city planner, Leon Krier, in his works.

14 The other districts are: Czechów, Dziesiąta, Kośminek, Rury (now LSM) and Wieniawa.

15 Based on the author's conversation with Romuald Dylewski of 29/04/2016

The mentioned new districts of Lublin were located on hills divided by river valleys or rainwater drainage systems becoming their natural borders. Importantly, adequate topographic maps were not available at the time of the planning, therefore the design teams were forced to revisit and enhance their plans in situ. The natural distance among particular city districts was strengthened by greenery areas or communication paths around the housing estates. According to the plan, the building density was to increase together with the proximity to the district centre. The bigger the distance to the centre, the more loosely the area was built. The design was governed by the principle of "even value distribution"[16]. The principle ensured each housing estate's full and equal access to services, education and cultural facilities such as cinemas, theatres or community centres. Due to insufficient number of flats, it was decided not to introduce any new industry into Kalinowszczyzna until 1965. Instead, the focus was on providing for flats for 30,000 inhabitants, and modernising the already existing industrial facilities. The housing estates were in satellite arrangement, divided by streets and roads. In turn, footbridges were placed over the streets to enable free pedestrian movement. Kalinowszczyzna has been crucial for the Lublin's landscape, as the district's buildings complete the northern skyline of the old city. Importantly, only a well-designed building arrangement on the hills could and can ensure a harmonious blend of old, historical, and new city tissue.

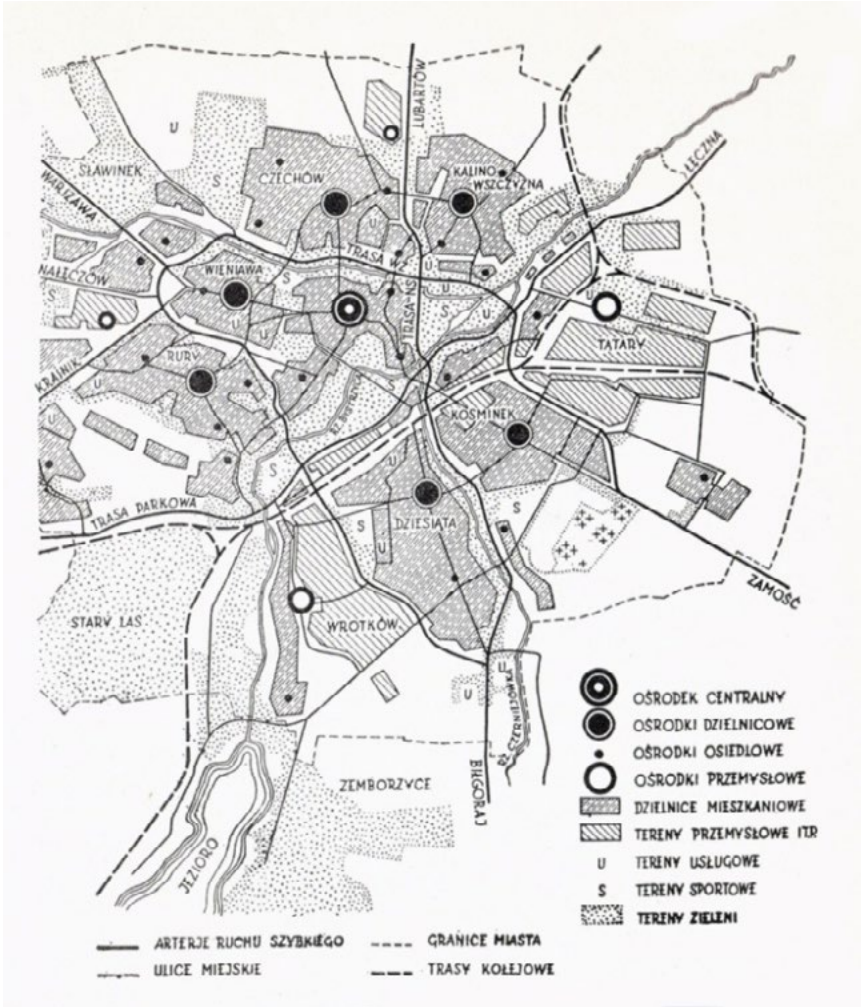

Fig. 4. Illustration from the General Master Plan of Lublin of 1959.

Source: Romuald Dylewski – private archives

16 „sprawiedliwy rozdział wartości", after Gawarecki H., Gawdzik C., 1964. Lublin, krajobraz i architektura, Arkady, Warszawa, p.80.

Rita and Tadeusz Nowakowscy were given the task of designing a coherent, modern and functional district. The duo was renowned for e.g. their project of the City Hall office building at the Wieniawska 14 street (in 1978), completed in cooperation with Jerzy Androsiuk, Stanisław Fijałkowski and Janusz Makowiecki. According to the new district's plan, the buildings were to blend into the natural landscape. The large gorge was to serve as the walking area for inhabitants and the "green lungs" of the estate. It was also important to create collision-free vehicle and pedestrian traffic, and this was achieved by means of the footbridges over the Lwowska and Gen. Władysław Anders[17] streets protruding through the estates.

Fig. 5. Comercial buildings along the General Władysław Anders avenue in Lublin. Author: Zbigniew Zugaj

The "Motor" Workers' Housing Cooperative[18], led by Eugeniusz Kowalski, was launched on the 18th of November 1960. The aim of this cooperative was to build flats for the workers of a prominent Truck Factory[19] in Lublin. The first housing estates were built in 1963 and they are in the closest proximity to the old town now, north of the Tysiąclecia avenue, along the Lwowska street. The designers used the pre-existing ravines and gorges as natural markers of the buildings' arrangement. The Lwowska street was introduced along one of these ravines, acting as a compositional axis of the Kalinowszczyzna housing estate. Another ravine remained unbuilt and currently constitutes a natural eastern border of the estate, subserving leisure purposes of the inhabitants. The buildings were erected using traditional construction technology. There are 23 low-rise and medium-rise (up to 5 overground floors) linear housing blocks, 4 medium-rise towers and 19 high-rise, 11-storey towers[20]. Interestingly, the blocks along the Lwowska street are arranged in a clear linear way at the same time being equipped with groundfloor shops which do exist until this day (Fig. 6).

The housing estate, replacing a number of the 19th-century houses and shops was received with enthusiasm by the first inhabitants. As one of them, Zbigniew Miazga, writes: "This is the beginning of the end of Kalinowszczyzna's bad reputation, the district of poor houses, mediocre and gloomy streets, suburban folclore..."[21]. In fact, the architecture and the ambiance of the disctrict changed radically. There are only some of the old houses, manors and shops left until today, and the suburban folclore is no longer present. One question remains unanswered, namely: Were not these elements worth preserving while planning the new city tissue?

Another housing estate, namely: the 30-lecia (PRL) one, was built to the east of the ravine in the years: 1969–1975. Rita and Tadeusz Nowakowscy, the architects of the Miastoprojekt Lublin architectural office, designed three 11-storey tower buildings' units on the southern hill. Another unit composed of five similar buildings was erected next to the Saint Agnes church. In addition, along the Gen. Władysław Anders avenue, and

17 Previously: Bolesław Bierut street and Włodzimierz Lenin avenue, respectively.

18 Robotnicza Spółdzielnia Mieszkaniowa „Motor" in Polish

19 Fabryka Samochodów Ciężarowych in Polish

20 In 2012, the tissue became denser, as two 10-storey buildings were erected next to the Berbecki roundabout.

21 Kazimierczak- Smuga B. [ed.], Nowy Lublin. Osiedla RSM „Motor", Przyjaźni, XXX-Lecia PRL, Niepodległości. Robotnicza Spółdzielnia Mieszkaniowa „Motor" w Lublinie, Lublin.

south to the gorge, linear 5-storey blocks were arranged in the shape of crescents, by the same token forming specific urban interriors. The described district was the first one in Lublin where prefabricated elements (the so-called WB, OWT-67) were used for residential building. The high-rise buildings stand out in the city skyline. At the same time, these changes negatively affected the visual reception of the Saint Agnes church. While located on a hill and being one of the most valuable architectural elements of the area, the church no longer dominates the skyline (Fig.1). The churches located on Lublin's hills (Czwartek, the castle hill, the Staromiejskie hill with the Dominicans' church and, previously, the Saint Michael's parish church, as well as the above mentioned Saint Agnes church), constituted a set of visual landmarks, and this coherent image was destroyed by the poorly arranged architecture of the 30-lecia housing estate. Similarly, it remains unclear why the housing estate surrounds a cemetery (with the cemetery becoming the estate's central part). It is a large building with shops, along the Gen. Władysław Anders avenue that plays the key role in the housing area. Its three overground levels are dedicated to trade and accessible to pedestrians due to large terraces (galleries) and a footbridge connecting it to the neighbouring housing estate (Fig. 5). The facility, together with other buildings within the Niepodległości housing estate, were to function as a district centre, included in the above mentioned Lublin Master Plan by Romuald Dylewski. 5,000 inhabitants are currently living there in 1,706 flats and 21 housing blocks[22].

Fig. 6. Block of flats with shops on the ground floor, near the Lwowska street in Lublin.

Author: Michał Dmitruk

The Niepodległości and 40-lecia (PRL) housing estates, located in the northern part of the district, have quite similar layout and architecture, being also based on similar design principles. Therefore, they may be discussed jointly. The only element that visually divides these two areas is the Niepodległości street axis. Similarly to the other parts of Kalinowszczyzna, this one was designed by Rita and Tadeusz Nowakowscy. The estate is located on the verge of the Bystrzyca river valley, at the same time providing for a distinguishable skyline on the east side of Lublin (Fig. 7). Looking at the skyline, an observer would first recognize the 5-storey linear blocks standing perpendicularly to the visual axis, with high-rise towers in the background, enriching the view. The estate's northern multi-family buildings neighbour the Ponikwod detached houses. As the youngest of all the Kalinowszczyzna'z estates, these ones are characterised by a large number of shops, as well as educational, medical and sports facilities. A clearly distinguishable commercial centre is located around the Berbecki roundabout, hosting the National Healthcare Fund[23], kindergartens, rehabilitation facilities, post office and a number of big and small shops. There are also 5 sports playing fields, 1 seasonal ice skating rink, a junior high school, kindergarten and many shops nearby. Typically of Kalinowszczyzna, the inter-block spaces are vehicle traffic-free. Instead, open parking lots were located along main streets (with smaller access roads) and large parking units were placed in the outskirts. By the same token, blocks are now surrounded by rich greenery which has already grown and successfully breaks the monotony of concrete slab architecture.

22 Two buildings are more recent that the remaining ones – they were constructed in the years 1990–1991.

23 Narodowy Fundusz Zdrowia (NFZ) in Polish

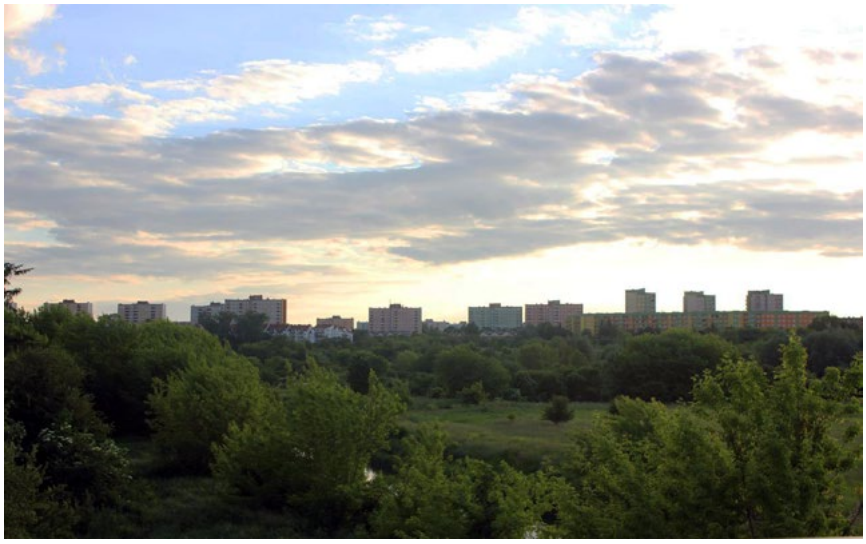

Fig. 7. The skyline of the 40-lecie estate in Lublin. Seen from Bystrzyca river bank.
Author: Michał Dmitruk

Current condition

Only some of the initial architectural and urban solutions have been preserved until today. On the other hand, e.g. the idea of a collision-free footbridge for pedestrians above the Lwowska street proved unsuccessful in practice. Crossing the footbridge required climbing two flights of stairs which made people choose another crossing at the level of and directly through the street, even if it required waiting for the cars to pass. Finally, at the cost of loosing collision-free communication, the footbridge was dismantled in 2010 due to its poor technical condition, and the only footbridge remaining in the district is the one above the Gen. Władysław Anders avenue. The Kalinowszczyzna district tissue has been densifying since then, with new buildings being still erected. The most recent constructions include two high-rise buildings with a supermarket, at the Lwowska and Anders corner. A Carrefour supermarket and the Saint Antoine Padewski parish church were built earlier, while a number of blocks and terraced houses were erected in the 1990s. In 2011, the MKS[24] "Kalina" sports club's playing field was built, which constituted an important yet unsuccessful addition to the estate, inaccurately placed in the natural gorge running between two housing areas, thus creating a visual a communication barrier for pedestrians. Importantly, the Bolesław Bierut statue, which despite being a communist monument constituted a significant aesthetic element of the district, was dismantled as a result of political system's transformations. Currently, there is a large housing unit being constructed in the northern part of the estate, while a large part of the square remains undeveloped.

Another serious issue lies in colour selection for the blocks and towers, following their thermal modernisation. The buildings were predominantly of soft colours (usually white and grey) with occasional harder and more vivid accents often in the form of colourful balcony plates. While slightly monotonous, the buildings matched one another. In contrast to that, current colours and patterns seem to be randomly selected for particular buildings, especially in the case of the Niepodległości estate, which not only neglects the rules of harmonious and coherent design but even triggers visual chaos. The impression of chaos is intensified by numerous and visually aggressive advertisement signs and banners, which is demonstrated below, by means of before-and-after pictures.

24 Miejski Klub Sportowy, i.e.the Municipal Sports Club in English

Fig. 8. No-longer-existing monument of Bolesław Bierut at the Singer`s square in Lublin and present view (06/06/2017).

Authors: Zbigniew Zugaj/ Michał Dmitruk

The 40- and 50-years old, and therefore already mature and dense, greenery constitutes a significant added value for the estate. There are numerous trees, bushes and green areas being dilligently cared after by the local housing cooperatives. As specified in the estate's Management Office's economic report of 2014[25], a wide variety of modernization works are conducted, including painting, masonry, plastering, road maintenance, technical installations' servicing (replacement), and other works such as installing surveillance or bird prevention systems[26]. What is more, the inhabitants play a crucial role in the decision-making process regarding maintanance and modernization, by submitting and presenting their needs to the Management Office. By the same token, not only the inhabitants' wellbeing is increased, but so is their feeling of responsibility and impact they have on the quality and development of their district.

The number of maintenance works specified in the report is impressive, while keeping the buildings' colours coherent calls for improvement. Similarly, a number of decisions are being made without proper knowledge of the original estate plan, for instance – regarding the previously mentioned fenced playing field in the gorge, or footbridge dismantling. It is only the participation and engagement of qualified parties that can restore the desired aesthetic character of Kalinowszczyzna.

25 Available at the estate's Management Office's webpage: http://kolejarz.lublin.pl; day of access: 01/11/2018

26 After: „Kalinowszczyzna" estate's Management Office's economic report of 2014 (Sprawozdanie z działalności gospodarczej Administracji Osiedla „Kalinowszczyzna" za 2014 r.)

Fig. 9. Niepodległości district in Lublin – original condition and the current state.

Authors: Zbigniew Zugaj/ Michał Dmitruk

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Online resources

[1] kolejarz.lublin.pl
[2] pl.wikipedia.org/wiki/Kalinowszczyzna
[3] teatrnn.pl

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Emotional reactions of the respondents compared to different ways of perceiving the square in front of the WICA building of the Lublin University of Technology

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Abstract: The article presents a description of the research method and the results of research regarding the difference in the reception of space depending on the way it is perceived.

The research concerned one space (the square in front of the building of the Eastern Innovative Centre of Architecture at the Lublin University of Technology) and three different reception methods. One group of respondents was physically in the square, the other group virtually – with the use of virtual reality (VR) technologies, and the third one saw only pictures of the square. Each group of respondents chose the emotions with which they identified most from the semantic scale developed for this study. The results of the groups were compared, and the conclusions were presented in the summary.

The study was conducted to evaluate the possibility of using VR technology and photographs to study emotions that a given space evokes in its recipients.

Keywords: virtual reality, the perception of architecture, emotions in architecture, psychology of architecture, semantic differential

Introduction – the aim of the study

Virtual reality is currently used in many domains and for many purposes, among the others for the recreation of existing objects, in medicine, as a didactic support or for entertainment [Grabowski 2015, Oseńko 2017, Bil 2013, Pardel 2009]. Asanowicz [2014] says that it is possible to use VR for presentations and for designing directly in the virtual world.

Gardziński [2015] suggests the direction in which virtual cyberspace and its impact on / with a human may develop. Although he uses words with a negative axiological load for this purpose ("the loss of human being", "integrated switching system into the impersonal marginal world of fantasy", "atemporal and discarnate perfect virtuous shell"), he also propose a solution how to stay away from this black vision referring to the literary canon in the library of a contemporary architect [Żórawski 2008, Pallasma 2012, Zumthor 2010, Rasmussen 1999, Alexander 2008].

The concept of the psychology of architecture is quite a new area of science. The academic who studies this domain in Poland is Lenartowicz [1990, 2010, 1992]. His works were the contribution to this research.

The article is an attempt to answer the following questions: Is it possible to examine the emotions of the user of a space evoked by seeing it with their own eyes without the need to be physically present there? Does architecture and surroundings evoke emotions in people only when they are viewed on site or also when they are seen reproduced in a picture? And going further – can you use film frames to study the emotions triggered by buildings? Can a given test method (for VR) be used to test the reception of buildings that are to be constructed? What is the difference in emotional response depending on how one perceives space?

Research description

Three ways of receiving space were examined – on-site verification, reception through virtual reality devices and traditional photographs.

Both traditional photographs and a 360-degree photo were taken at a similar time when the first group was on site. As a result, similar lighting and weather conditions were ensured to maximally eliminate the influence of external factors on the emotions of the respondents.

Subjects responded to the question "How do you perceive this place?". The survey contained 15 pairs of expressions. In each row, the respondents indicated one value on the 1–7 score scale. They chose a value closer to the left, if they supported the statement on the left side, and if they were more for a statement on the right, they circled a value closer to the right. The survey was based on the Osgood scale (semantic differential) [Osgood 1952].

The test site is the square in front of the WICA building (Wschodnie Innowacyjne Centrum Architektury). It is a place where respondents often pass. The square is used partly for a parking lot. There is the building of the Faculty of Civil Engineering and Architecture of the Lublin University of Technology and the back of the parish chapel of the Transfiguration of the Lord. The building is a perfect example of respect for the place [Wrana 2011, 2012a]. The building architects paid attention to the existing surroundings and the adaptation of the building to neighbouring buildings, especially to the earlier part of the Faculty of Civil Engineering and Architecture. The project manager, architect Jan Wrana claims: "The new form is a contemporary expression of the architecture of the 21st century" [Wrana 2012b, 2013].

Group results

In total, 30 people took part in the study. They were divided into 3 groups, 10 people each. The surveys were solved individually and anonymously. The repondents were students of architecture of the second year of the first-degree studies and the first year of the second-degree studies.

Average results were calculated by adding all grades and dividing by the number of people. They were not rounded.

Group 1 – comparative

Group 1 was a comparative group. The respondents were physically in the square and they were making a questionnaire during their presence on site. The results are presented in the graph (Fig. 1.) ***Group 1 – comparative – the results of the study.***

The square in front of the WICA building was assessed as a peaceful, safe, pleasant, interesting place that the respondents like.

Group 2 – virtual reality

The respondents of the second group were the ones who were virtually evaluating space. In picture (Fig. 2.) we can see a photograph that was used as a 360° photo.

Due to the nature of the space perception during this study, the person conducting the research read the questions in the survey, and a respondent gave the answers orally. The respondents did not know their answers. The tests were carried out individually. The results are presented in the Fig. 4.

This group of students assessed the square as a peaceful, safe, pleasant, interesting place that they like.

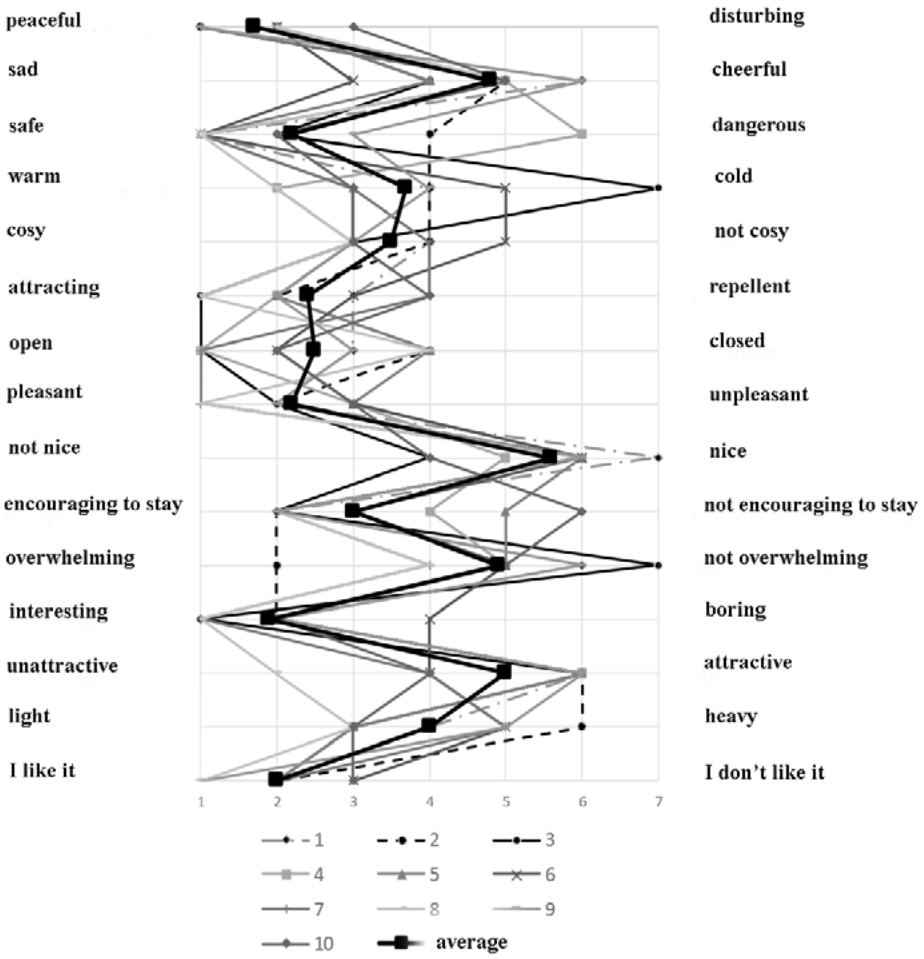

Fig. 1. Group 1 – comparative – the results of the study. The line "average" shows the average results of the group (own elaboration)

Fig. 2. Virtual photo presented to the respondents (author's own photography)

Fig. 3. Students during the survey (pic. M. Marszałowicz)

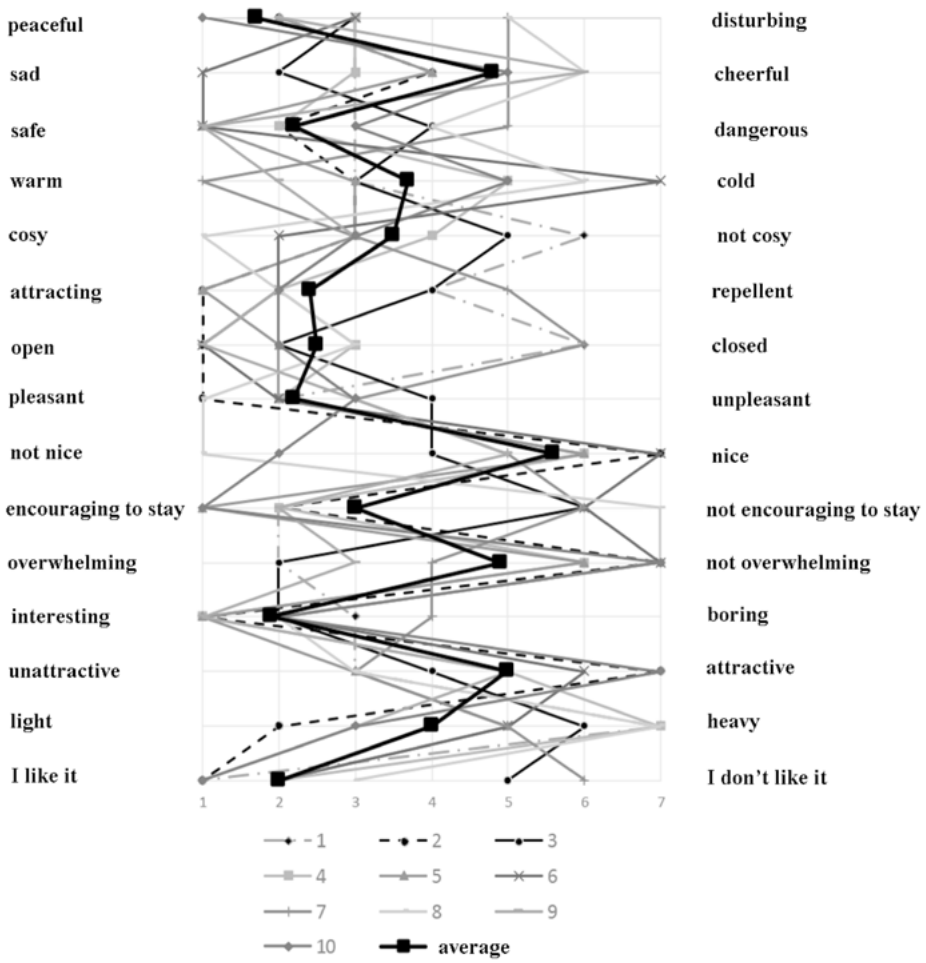

Fig. 4. Group 2 – VR – the results of the study (own elaboration)

Fig. 5. A set of photos presented to the group 3 (author's own pictures)

Group 3

The third group received a set of pictures of the square. The surveys were completed in the classroom. The students had only these photographs at their disposal (Fig. 5.) throughout the period of the survey. A room where the survey took place has no windows to the square.

The results presented in Fig. 6. show the assessed square as an interesting, pleasing, attractive place that the respondents like.

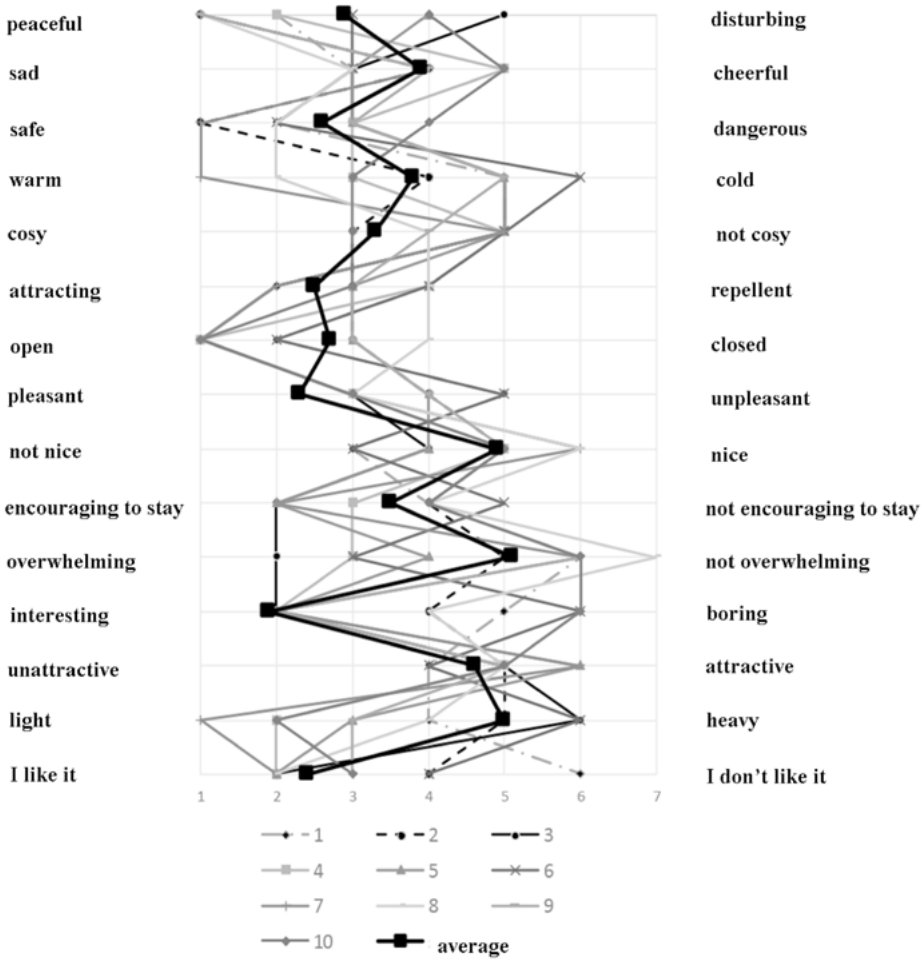

Fig. 6. The group 3 – a set of photos – the results of the study (own elaboration)

Comparison of results

The average results of each group were compiled on a single graph (Fig. 7.).

The points of the group 1 (on-site survey) and the group 2 (virtual reality) are close in many places. Standard deviation for these two results varies from 0 (interesting / boring) to 1.2 (calm / disturbing). The average of this deviation is 0.43, whereas this result for the comparison of the group 1 and group 3 (a set of photos) is 0.69. Differences in comparison of group 1 and 3 responses range from 0 (attractive / unattractive) to 1.6 (interesting / boring).

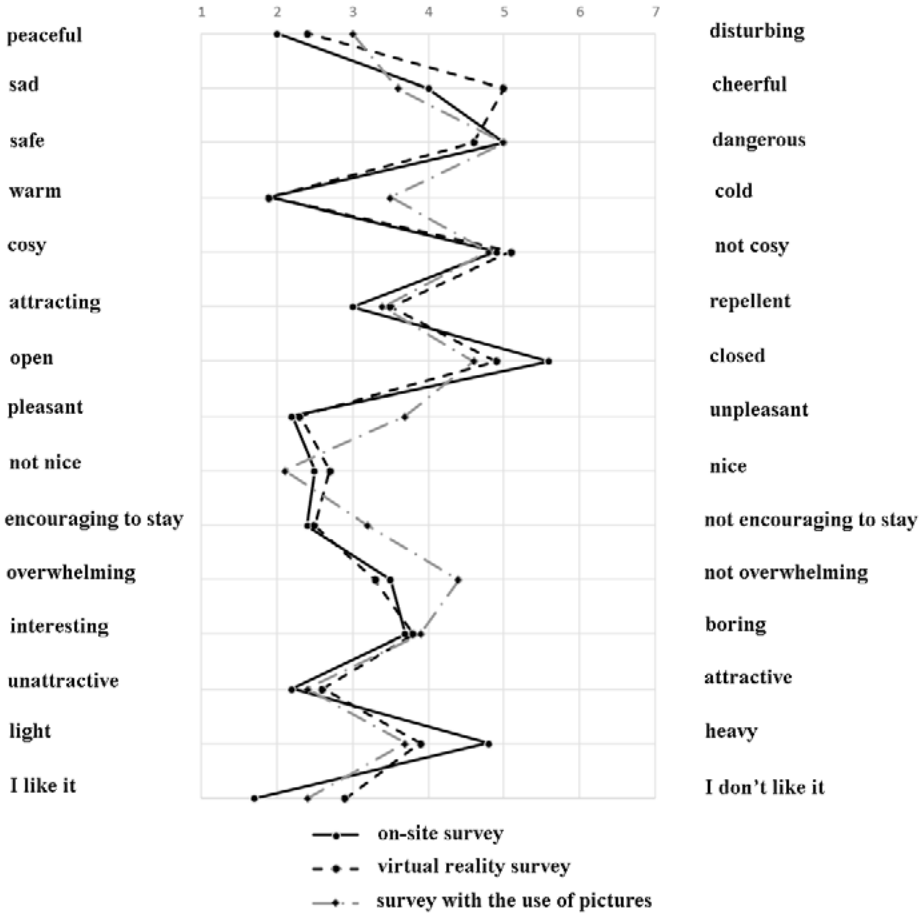

Fig. 7. Compilation of the results for all groups (own elaboration)

The students assessed the square as a peaceful, safe, attractive, open, interesting and pleasant place that they like. Answers where the respondents were least convinced in assessing the qualities of the square were: warm / cold, light / heavy and encouraging / not encouraging to stay.

Summary

It seems that the presented research method can be used to study the perception of buildings (architecture) and space (places), not only those that are already built, but also those existing only in the virtual world (computer games, films, architectural and urban designs). However, in order to clearly confirm the possibility of its use, further research should be carried out on a larger group of respondents and concerning different places.

If subsequent tests confirm the correlation of the results obtained during the on-site survey and virtual reality survey, the virtual reality could be used to check already at the design stage how transformation of a given space may be perceived by the users. This can be especially significant if they concern the historical substance of the city or important city squares.

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Sposób odbioru placu przed budynkiem Wschodniego Centrum Architektury Politechniki Lubelskiej a reakcje emocjonalne badanych

Streszczenie: W artykule przedstawiony jest opis metody badawczej oraz wyniki badań dotyczących różnicy odbioru przestrzeni w zależności od sposobu jej postrzegania.
Badania dotyczyły jednej przestrzeni (plac przed budynkiem Wschodniego Innowacyjnego Centrum Architektury Politechniki Lubelskiej) i trzech różnych sposób odbioru. Jedna grupa badanych była fizycznie na placu, druga wirtualnie – dzięki użyciu technologii virtual reality (VR), trzeciej były przedstawione zdjęcia. Każda z grup respondentów wybierała bliższe im emocje z opracowanej na potrzeby tego badania skali semantycznej. Wyniki grup zostały porównane, a wnioski zostały przedstawione w podsumowaniu.
Badanie zostało przeprowadzone w celu sprawdzenia możliwości użycia technologii VR i zdjęć do badań emocji, jakie powstają w odbiorcy danej przestrzeni.

Słowa kluczowe: wirtualna rzeczywistość, odbiór architektury, emocje w architekturze, psychologia architektury, dyferencjał semantyczny

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Psychosomatic aspects of healthcare facility design solutions

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Abstract: The purpose of this paper is to present the social and psychological aspects of the impact of architecture of a hospital on all its users.

The authors analyse the impact of factors shaping the architectural space of a hospital on the behaviour of patients and on the mutual relations between all the participants of the hospitalisation process.

The hospital space has been presented from the point of view of the psychophysical needs of a patient, from the point of view of the medical staff and the visitors. The analysis includes the assessment of the quality of architectural space of a hospital as a place intended for the medical treatment, which is to facilitate the recovery of the patient and fast response of the staff in emergency situations.

Key words:

Architectural design as a determinant of the patients' recovery

"Architecture is a form of cultural adaptation of man to the natural and social environment. It is a culture of shaping spatial barriers and distances that protect man against adverse effects of the surroundings, that compensate for his biological limitations, regulate the nature and intensity of his contacts with other space co-users (..) Formal and spatial defects of the interior design (...) often pose certain excessive adaptation requirements and result in the feeling of stress, discomfort and threat" (Czyński, 2006).

The data of the Central Statistical Office clearly shows that, on the one hand, the society is ageing (number of people over 60 is increasing) and, on the other hand, the birth rate is going down. It is estimated that in the next 10 years the percentage of the elderly will reach about 28% (10 million). Whereas in further decades, if this trends continues, in 2050 the percentage of the elderly will be around 40%. Such forecasts indicate that the senior health care services will be in higher and higher demand. The presently operating health care centres will require extension or new facilities will have to be built. This may pose quite a challenge bearing in mind higher and higher expectations regarding the quality of health care centres.

Architecture intentionally predetermines certain types of human behaviour. By appropriately shaped building space, it underlies the mutual relations between the users. (Bańka, 1985). A hospital, being a building of a complex program of functions and of a diversified form, is a specific place of compulsory stay of persons in uncomfortable conditions. This obviously refers to their poor health condition but not only that. Hospital interior can contribute to the well-being of the admitted patients. Illegible functional layout or complicated circulation that hinders orientation may make the patients feel lost, uncertain or insecure.

The ability to master the barriers of the man-made environment is much reduced in case of the sick, the elderly or the disabled. This adversely affects their adaptability skills and the feeling of safety in contact with direct environment (Czyński, 2006). Architecture of health care facilities poses certain "adaptation requirements" for the users.

As M. Czyński observes, human health is a one, indivisible whole. Disorders in somatic, psychological, social or spiritual zones mutually influence one another.

Architecture of health care facilities is more anthropocentric than architecture of any other types of buildings because it has to account for the biological limitations of human nature.

Internal rules and regulations applicable in hospitals significantly reduce the patients' options of having the space they use under their own control (Bell, Greene, Fisher, Baum, 2004).

It may, however, be assumed that the relations between the patients and the hospital environment can be respectively moderated to facilitate well-being and recovery process of the patients. Proper design of space shall assure the patients with optimum comfort during their hospitalization, i.e. at the moment of hospital admission, diagnostic tests and the overall treatment process.

Evidence-based Design analyses unambiguously co-relate the quality of the building environment with the recovery rate in patients.

Building space, wrongly designed by an architect, may translate into the patient's feeling of alienation, fear or stress, whereas we would expect from the architecture of health care facilities to exert quite the opposite effect (the feeling of relax, safety and harmony). It's a natural human need to feel safe at the psychophysical and emotional level. That is why application of relevant design solutions, which positively affect the mutual relations between the patients by providing them, on the one hand, with private space and, on the other hand, with space facilitating social interaction in the hospital environment, is so important.

Architecture of a hospital and public space

"Architecture has its own realm. It has a special physical relationship with life. I do not think of it primarily as either a message or a symbol but as an envelope and background for life which goes in and around it, a sensitive container of the rhythm of footsteps on the floor, for concentration of work and for silence of sleep" (Zumthor, 2010).

As early as in the middle of the previous century, paediatric hospitals were recommended to be designed to create optimum conditions for the patients, thus allowing for optimum daylight, accounting for green areas and suitable colours to create positive and stimulating environment for the hospitalised children separated from their families, not to scare them with white and unfamiliar interiors. [Fig.1]

Fig. 1. Interior design of the hospital room in a paediatric hospital.

Author: MSc, architect engineer Magdalena Jakubowicz; Thesis supervisor: PhD, architect engineer A. Gawlak

This new approach to space of health care facilities is further discussed by Szafranowicz, in his publication of 2005, where he defined healing environment as a set of spatial and functional solutions in health care facilities combined with the know-how and medical technologies, that have a nurturing and therapeutic effect on the patient. Due to complex functional programs and circulation paths, architecture of health care facilities is a very complex structure, which can be divided into three zones (A,B,C). [Fig.2]

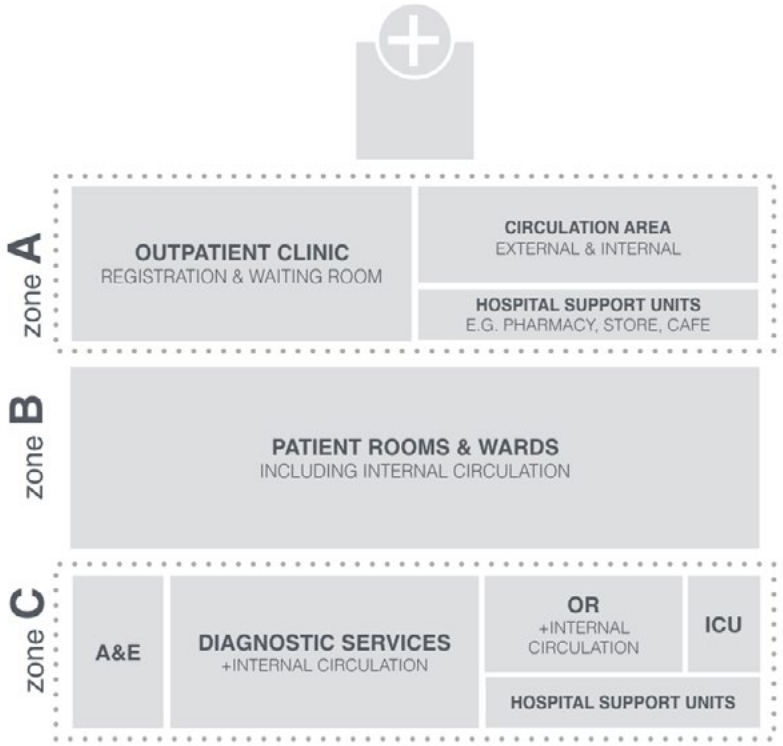

Fig. 2. Schematic hospital layout – division into zones A, B, C due to accessibility.

Author: PhD, architect engineer A. Gawlak, MSc architect engineer M. Matuszewska

The first zone A is the so-called external area, which includes the generally accessible halls and corridors, the reception room, the waiting room, the entire entrance area and direct surroundings with the admission room. This zone creates the hospital image. The second zone B, is the so-called internal zone, which comprises hospital departments, patients' rooms, circulation in the departments with auxiliary rooms, whereas zone C of diagnostic and treatment rooms is the most specialised and isolated area.

Developing programs of hospital functions, we need to account for the fact that some of the hospitals might be engaged in scientific research or medical instruction activities, i.e. the research and development centres and university clinic hospitals (these types of hospitals conduct medical research and offer instruction to students of medicine). If this is the case, the design shall account for an additional zone i.e. instruction rooms (auditoriums, lecture halls, conference rooms, the library, etc.).

It has become a standard practice to obligatorily subject the role of architects designing such buildings as hospitals to complex medical technologies and strict formal and legal requirements. It, however, leaves no doubt that the architecture of these zones preconditions relevant behaviour of the users. Architectural designs must strictly observe the limitations posed by the functions and technologies indispensable for the diagnostic and treatment zone; yet more freedom can be enjoyed at the designs of common, publicly accessible hospital areas such as the admission rooms, waiting rooms, information points, relaxation areas – here the architects may take a more creative and open approach to designing. These areas offer high creative potential as space dedicated to other purposes than strictly the medical treatment procedures [Fig. 3].

Fig. 3. Interior design of the admission room in a paediatric hospital.

Author: MSc, architect engineer Jan Kądziela; Thesis supervisor: PhD, architect engineer A. Gawlak

Proper diagnosis largely depends on the psychophysical condition of the patient at his/her admission to hospital. It has been confirmed that the symptoms in the youngest patients, who have low adaptability skills, can intensify due to sudden stress (Bell, Greene, Fisher, Baum, 2004).

Public space in modern hospitals usually overwhelms with its grand scale, this is where the architects and designers can use the full potential of their artistic creativity. Despite being the junctions of internal traffic in highly specialised hospitals, these areas make the impression of lightness, uniqueness and uniform compliance with the overall conception. Without doubt, they introduce new quality to the hospital space (Gawlak i Pruszewicz-Sipińska, 2012).

Physical properties of designed hospital space affecting the well-being of its users

Functions of the hospital buildings can be realised provided that the users of relevant premises/rooms can enjoy overall comfort therein. The comfort criteria to be met differ depending on the areas: some rooms just need ventilation, others require air-conditioning, whereas some premises, which have to be maintained in sterility (operating theatres), must be ensured with air of certain level of microbiological purity.

Design decisions concerning the colour scheme, lighting, equipment are subordinated to the sanitary and hygienic requirements and medical technologies.

Nevertheless, apart from ensuring access to the technically and technologically most advanced design solutions, the patients' well-being must be in the core interest of the architect's activities.

Modern designing consists in the creative work of the entire team of experts, it is, in other words, a search for an optimum solution out of possible options; this often means a reasonable compromise between the postulates of the doctors and the technical and financial possibilities. An architect must always duly care for the efficient use of technological means to achieve possibly the highest aesthetics of the designed spatial layout.

The architect's (author's) task is to properly shape the material environment into attractively looking spatial units to positively affect the patient's mental condition and to facilitate his/her adaptation to unfamiliar surroundings, thus, reducing the patient's stress.

Building block and form

The hospital location itself is of crucial importance. Apart from the obvious factors such as locating hospitals near agglomerations they are designed to provide services for and in proximity to major road junctions, paediatric, geriatric or other hospitals intended for long-term hospitalisation shall not be located in continuous

development, they need to be provided with green areas. In case of such hospitals, it is a good practice to so design the departments that the hospitalised patients could face the green areas. Furthermore, hospitals need to be provided with large windows as natural views have therapeutic effects on the patients both as regards their mental condition and physical recovery. The research has shown that the patients who watched the trees through the windows recovered faster than patients with views to the city centre or traffic (Bell., Greene, Fisher, Baum, 2004). [Fig.4]

Fig. 4. A design concept of the Rehabilitation Centre in Poznan being part of the rehabilitation and orthopaedic centre within W. Dega hospital (28 Czerwca 1956 Street)

Author: MSc, architect engineer Magda Matuszewska; Thesis supervisor: Prof. architect engineer Ewa Pruszewicz-Sipińska, associate professor at Poznan University of Technology

Fig. 5. Diploma design of a sanatorium clinic facility in Czarna Góra in Kotlina Kłodzka (The Kłodzko Valley),

Author: MSc, architect engineer Aleksandra Pocion; Thesis supervisor: PhD, architect engineer A. Gawlak

Negative perception of hospital buildings and stereotypes coined in the last several dozens of years among others result from (according to M. Czyński):

- secluded locations of hospitals, outside the municipal borderlines, with difficult access for the patients and the visitors,
- huge scale of hospital buildings designed for several hundred of beds that makes the impression of an automated treatment process of anonymous patients,
- standardisation of an architectural form – buildings deprived of details, with flat façades with symmetrical rows of windows,
- misleading directional signs to entrances and drives to the hospital buildings that increase stress, alienation and the feeling of loss; no cohesive, visual identification
- lack of aesthetically designed areas around the hospital (gardens or parks).

- Crowded patients' rooms, unfriendly hospital space, complicated circulation, unclear directions, smells of antiseptics and specific sounds make the patients and the visitors feel confused.

Modern approach to designing health care facilities stresses the priority of the quality of architecture [Fig. 5]

With the development of architectural psychology, the context of the patients' treatment process has changed the perception of hospital buildings. A carefully designed hospital building and its form has become a stimulating and facilitating element of the hospitalisation process, resulting in a positive perception of the surroundings by the patient.

Elimination of a gap in the aesthetics of hospital architecture and the architecture of residential development or recreational facilities has changed the sociological and psychological perception of hospitals (they are now less secluded from the urban structure and contradict the stereotypical images of hospitals, old people's homes, etc.) More and more often hospital architecture diverges from the previous practise of hardly accessible, anonymous, huge size buildings, where a user feels alienated. [Fig.6]

Fig. 6. Design concept of the extension of the hospital at ul. Szpitalna in Poznan.

Author: MSc, architect engineer Marta Sowińska; Thesis supervisor: PhD, architect engineer A. Gawlak

Medical staff appreciates the visitors as their presence positively affects the patient's well-being. They can, furthermore, assist the staff in simple tasks such as the washing or feeding the patient. In hospitals where the patients are in single rooms, the comfort of the visitors is definitely higher that in case of patients in shared rooms. A number of research works (Urlich, 2008) have assessed single rooms as facilitating the recovery process among others due to better sleep and reduction of pain-killers.

It has been also confirmed that patients prefer those functional layouts in hospitals that allow them to watch the medical staff and other patients(Niezabitowska, 2004).

The hospital building block (its form) results from the functional and spatial layout of the building interior but not exclusively. It predetermines the organisation of space around it, affecting the passers-by and random appeasers. [Fig.7]

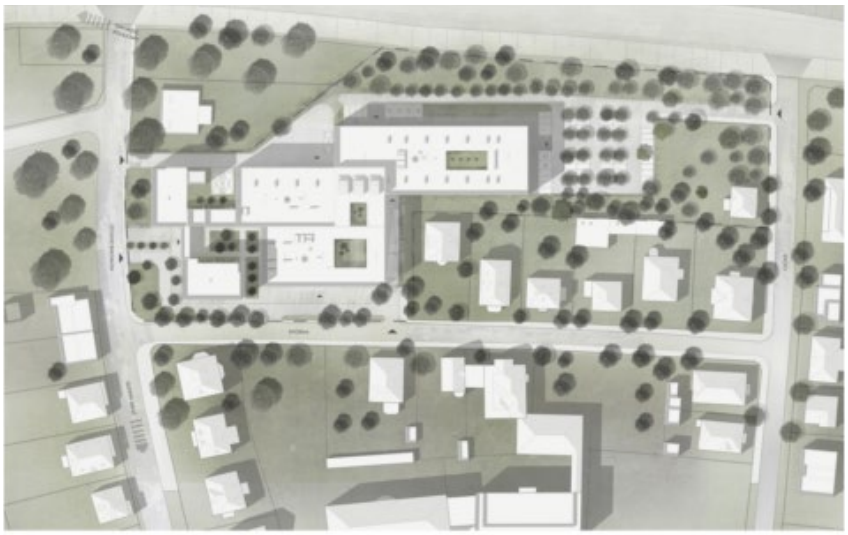

Fig. 7. Design of area development around the hospital at ul. Szpitalna in Poznan.

Author: MSc, architect engineer Jan Kądziela; Thesis supervisor: PhD, architect engineer A. Gawlak

Colour scheme

As regards hospital space where the majority of the supplies/equipment continuously need to be replaced or modernised, colour is very important. Colour constitutes an inherent feature of any applied material or of each designed space and corresponds to the aesthetics and functionality of the objects. Above all, conscious selection of colours basically is not a medical treatment method. Nevertheless, it has been found that colour pure or monotonous interiors negatively affect the patients' recovery and well-being of personnel. It has been proven that improvement of the visual quality of the interior via appropriate colour scheme and light selection may shorten the recovery rate of the patients by up to 10%. (Dalke and others, 2006).

Sommers succeeded in proving in his research that the reduction of external stimuli, including reduction of colour stimulation in hospital interiors, where patients with limited mobility are hospitalised, may result in dangerous behaviour, in hallucinations in extreme cases.

Furthermore, Alexander Schauss, who in the 1960s and 1970s tested the influence of colours on emotional condition of man and the level of hormones, carried out an experiment, which proved that certain colours can excite or calm down and affect our cardiovascular system. Experimenting first on himself and next on prisoners, he confirmed that „Baker-Miller Pink" significantly reduced stress and calmed one down. His tests are currently being continued by prof. Adam Alter.

Colour scheme selected for the interiors plays a double role: it affects the comfort of users and their feeling of safety and also introduces cohesive visual identification of the hospital space. A uniform visual system improves the hospital organisation, facilitates the staff work and makes it easy for the visitors and the patients to move about the hospital.

Earlier research on the issue, among others by Hilary Dalke, shows that consistent and conscious colour scheme solutions are very important for the elderly patients as they need clear and unambiguous colourful graphic designations. Moreover, certain groups of patients need more time to understand visual information or visual codes (Dalke and others, 2006). Careful introduction of colours translates into more intuitive orientation in a hospital building, which is vital in a situation of a threat or stress. Hospitals are typically extensive, several floor facilities, where one can easily feel lost. This additionally increases the patient's stress and a result impedes the medical interview, examination or a diagnosis. Colour or texture additionally identifies particular functional areas by defining their position in hierarchy, which facilitates spatial orientation in the hospital. This concerns not only the wall colours but also the colours of doors, railings or floor markings that guide the patients e.g. from the main entrance to the patients registration (admission) or further to relevant consultation rooms.

It has been observed that patients better identify colour codes than understand the written instructions about locations of particular hospital areas. (Dalke and others, 2006). At the same time, application of unambiguous

colours in directional signs (e.g. yellow, red or blue) has turned out to be very effective. On the other hand, application of e.g. cyan could turn out to be confusing as cyan can be identified as green as well as blue. Application of grey is also risky – shades of many colours e.g. purple in particular lighting conditions may look grey, the same is with pink if the elderly persons wear yellow lenses (Dalke and others, 2006).

Senile patients often suffer from disorders in the perception of colours, contrasts, visual signals and perspective. Basically, yellow is the most important for the elderly – it is the last visible and recognisable colour for the persons with declining colour perception.

For the reason of technological processes and medical procedures, selection of the colour scheme in treatment rooms and laboratory rooms is much stricter. In the generally accessible areas, refreshment rooms, circulation paths, etc. colours are subjected to the prevailing goal to evoke certain emotions such as the feeling of relaxation, unwinding, balance and harmony. An individual character of respective rooms derives from colour. This, on the one hand, fosters a positive attitude of the patients to hospitalisation and, on the other hand, stimulates the staff integration and identification with the workplace.

Texture and fit-out

Selection of surface textures and additional fit-out in hospitals is above all subordinated to sanitary and hygienic aspects. We, however, need to remember that the textures of walls, floors or furniture predetermine the users' perception of the surrounding space. Nice environment is among others used to divert the patients focus from their health problems or the treatment procedure they are awaiting. Appropriate selection of fit-out and textures similarly fosters the well-being of medical staff.

To meet the goal, hospital interiors are also furnished with pieces of art: paintings, bas-reliefs, sculptures, sometimes created by the local artists. In paediatric hospitals, the young patients are often the artists whose drawings decorate the interiors.

The research (Sommer and Ross, 1958) has confirmed a simple inter-dependence between the manner of furnishing the rest and refreshment space in geriatric hospitals and the patients' behaviour. It has been proven that if the interior design of these rooms envisaged the use of round tables, social interactions increased in comparison to dayrooms arranged with rows of chairs. (Cherulnik, 1193; Spasiewicz, 2011).

Just the shape and colour of the furniture affect the psychological condition of the hospital users. The patients respond to the atmosphere created by the interior design and room fit-out. Patients' perception of the rooms as "nice" or "ugly" directly translates into their comfort and indirectly – into efficiency of the treatment. Furthermore, patients allowed to customise their hospital space, respond more positively to hospitalisation, feeling more independent.

It has been proven that suggestive perception of the interior quality contributes to increased social interactions at the hospital department, which improves mental condition of the patients (Bell., Greene, Fisher, Baum, 2004). In this respect we may also refer to the theory of Jan Gehl, which maintains that the increased quality of space translates into higher activity of the users and better prosocial behaviour.

Lighting

The Polish Standard PN-EN-12464–1 on Lighting of Indoor Work Places contains the general information pertaining to the lighting requirements in health care facilities. There are several fundamental criteria, which underlie the concept of good lighting – safety, good visibility, visual comfort and aesthetics.(Gawlak and Pruszewicz-Sipińska, 2012). The elderly persons, due to weak eyesight and reduced perception and cognitive abilities, require twice as much light as prescribed in the standards. Appropriate lighting helps them to understand the spatial orientation and to read the identification system. Proper light intensity is particularly important for dementia patients because they suffer from disturbed ability of processing visual signals.

In the first, external zone of the hospital (A), the lighting can intentionally make a good first impression and the exposure of the entrance zone, well-communicated with the main reception and the waiting room makes it easier for the patients to find the right way. This is especially important if the patient is stressed. The lighting

usually corresponds to the overall concept of the visual information and spatial identification in a building (Gawlak and Pruszewicz-Sipińska, 2012).

Observance of privacy and the right to privacy

According to a declaration of the Patient Rights' Ombudsman, Krystyna Barbara Kozłowska, 9 thousand complaints were filed in 2009 concerning the breach of patients' rights, in 2010 this number went up to 28 thousand and in 2012 – to 48 thousand. The majority of the complaints filed with the Medical Chamber concerned the disrespect of the patient's right to privacy in hospital – during examination, convalescence, etc. The patients mainly complained about unwanted exposure to visual inspection by other patients or visitors.

Obviously, the conditions of hospitalisation in certain hospitals and limited space at the departments do not allow for the accommodation of single patients' rooms, still movable screens, dividers and additional lobbies can improve the patients' comfort during their hospitalisation.

Ergonomic and proxemic method of identification of stresogenic factors allows for the analysis of interdependencies between the structure of space and the behavioural and social context of architecture (Czyński, 2006). The method takes into account the overall range of biological and psychosomatic needs of man as well as the cultural specifics, including the proxemics (comfortable distance to another person) as these aspects affect the relations between the users and the man-made environment and fundamentally underlie the feeling of safety inside a building.

It must be pointed out that the users with limited motor abilities, health disorders or a variety of malaises appreciate the individual right of free choice in man-made environment where full freedom must be subjected to medical or diagnostic restrictions. Certain stresogenic factors deriving from the spatial layouts can be consciously reduced by the designer via elimination of unwanted interference. In terms of space, these may be: the reduction of a number of patients in one room, isolated entrances to the surgery rooms, no direct insight into the patients' rooms, provision of mobile screens in the patients' rooms, allocation of visitors' space outside the patients' rooms. The attractively designed and fitted-out dayrooms with several round tables or circularly arranged armchairs and sofas that can diverge the patients' attention from the hospital boredom (e.g. artistic classes, workshops, presentations etc.) can be used as the said visitors' space. The aforementioned solutions, furthermore, foster prosocial reactions, facilitate new relationships, positively affect the mental condition of the patients and their internal motivation to fully recover.

It often happens that the patients crowd in a relatively small area in front of the admission room. High congestion, lack of privacy, peculiar 'hospital sounds' generate stress and cause excessive excitation.

Whereas the entire hospital admission procedure require detailed medical information from the patient or their guardians. It should be carried out in peaceful atmosphere, where the interviewee can concentrate on the answers. If the reception area has no separate room dedicated to medical interviews, no privacy is observed and this is another stresogenic factor that may affect the reliability of the answers provided by the patient.

Adaptation of reception desks to mobile abilities of the patients (including those on wheelchairs) and designing reception areas with patients' privacy in mind were viewed as priority requirements for the admission zone by the respondents (patients) (Dalke and others, 2006).

Conclusions

Designing health care facilities is a task that requires interdisciplinary knowledge on medical technologies, psychology, physiology, sociology and anthropology of man.

This article has presented the impact of functional and spatial solutions upon the behaviour of the building users, among others via appropriate building form or its fit-out.

We have, furthermore, referred to the new research on the influence of the colour scheme and lighting on human behaviour and to quality assessment methods in order to evaluate the architecture of hospitals.

Furthermore, a building user is viewed as an important participant in the process of working out the building functions and in architectural designing. In case of hospital buildings, these users are: the patients, the medical

personnel and the visitors. It has been confirmed that colour and lighting facilitates the patients' adaptation to hospital conditions. Additionally, colour plays an important role in directional signs and visual identification of hospital areas, which reduces stress and improves the perception of safety and the overall positive experience of the patients. All the factors that are directly related to the technological, functional and spatial solutions applied in hospitals underlie the patients' comfort and the quality of his/her hospitalisation.

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Residential buildings in healthcare resort Szczawno-Zdroj in the second-half of 20th century

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Abstract: The article focuses on the development of housing in Szczawno-Zdroj in the second half of the twentieth century. The image of this place was shaped for centuries as the town and the spa located in this area developed and mainly consisted of facilities associated with health resorts.

Based on an analysis of how housing developed in the discussed period, regarding both the shape of buildings and their location on the city plan, the author determines the degree to which new buildings interfere with the existing infrastructure with particular emphasis on their impact on the image of the historical part of the city which is mainly shaped by spa facilities. The study analyzed the impact of residential housing of this period on the traditional cultural landscape of Szczawno-Zdroj.

Keywords: Szczawno Zdroj, health resort, residential buildings.

Introduction

Szczawno-Zdroj is one of eleven Lower Silesian spa towns located in the Sudeten mountains and Sudeten foothills[1]. The health-giving properties of local mineral waters were known for centuries and they became the basis for the medicinal services of the spa town. Such services have been offered for many centuries despite the changing political and economic conditions. Throughout the years, the town of Szczawno-Zdroj and the spa in it have undergone constant development. Due to the prevailing climatic conditions, the neighboring green areas and the spa nature of the town itself, these areas have become attractive residential areas. After World War II, a more dynamic development of housing in Szczawno-Zdroj took place from the mid-sixties to the turn of the 1980s and 1990s. This period was dominated by single-family housing. The new buildings were added into the existing urban fabric and became a permanent part of it.

The purpose of this article is to answer the following question: To what extent has the contemporary housing development built in the second half of the twentieth century changed the image of the spa town and spa of Szczawno-Zdroj.

The Szczawno-Zdroj spa town

Szczawno-Zdroj is a well-known Lower Silesian spa town with hundreds of years of history. At the turn of the 19th and 20th centuries it was one of the most renowned spas, not only in the Sudeten area. No detailed or documented information exists regarding the origins of the use of Szczawno springs for medicinal purposes. According to legends and unconfirmed stories, the local healing waters were known already in the early centuries of the current era. Such information can be deduced from archeological excavations carried out in the

1 Act of 28 July 2005 on Health Resorts, Spas and Spa Conservation Areas and on Spa Gminas.

years 1907–12. However, this has not been confirmed by other studies. The first written record of this place dates back to a document from 1221 which mentions a settlement called Solikowo, also known as Salzborn, as a geographical reference point, and indicates the villages surrounding it as a model for the founding of the Budzów village near Ząbkowice [1][2]. This early settlement mentioned in the document is considered the beginning of today's Szczawno. A historical reference to this settlement is the first post-war name of today's Szczawno-Zdroj, i.e. Solice-Zdroj, which was used until the end of 1946.

At the beginning of the 19th century the spa town clearly starts to develop along with the growing interest in health resorts in Europe. The contemporary owner of Szczawno, Count Hans Heinrich VI von Hochberg from the nearby Ksiaz, initiated the transformation of the spa village into a modern European resort. The year 1815 is considered as the beginning of organized spa activities. The investments and organizational changes (including the appointment of a spa therapist) allowed Szczawno-Zdroj to officially become a spa town [3].

The year 1873 is a landmark date in the history of the Szczawno resort, when the nearby spa town of Stary-Zdroj (currently a district of Wabrzych with the same name) shut down its services. In this year, as a result of intensive mining operations at a neighboring coal mine, the last of the local mineral springs disappeared. Until then, Szczawno-Zdroj, despite its steady development, had been in the shadow of the more popular Stary-Zdroj. In 1873 about 40 publications were issued about Szczawno and its mineral waters, excluding press articles [4]. In the period following these events, which ended when World War II broke out, the spa town reached its peak of development and became famous in Europe.

Fig. 1. Walking route in the central part of the spa town. Photo by author

The spa activities were resumed in the new postwar reality, within different Polish borders and in a new political and economic situation. On July 1, 1945, the town received municipal rights.

In many respects, Szczawno-Zdroj is an exceptional spa town. The city is located amidst rolling hills at the foot of the Chelmiec mountain, and is surrounded by lush parks and forests. From the other side, it neighbors the industrial Walbrzych with a population of over 100,000. For many centuries the spa town and the industrial center were developing alongside each other. This closeness to the unpleasant Walbrzych influenced the functioning of the spa town throughout their entire shared history. The spa town became practically surrounded on three sides by the city of Walbrzych, which was developing in the second half of the 20th century, as well as by new housing estates and the historical part of the city. The proximity of a large industrial center had negative consequences both for the spa services and the image of this place as a neighbor of a big industrial city. After the closure of coking plants, mines and other undesirable industrial facilities, today's Walbrzych is a much "friendlier" neighbor but also much larger, both in area and population. Despite such a location, Szczawno-Zdroj has maintained its independence and distinctiveness in terms of the scale and character of its buildings.

Szczawno-Zdroj stands out among other spa towns with its unique layout and architecture of spa facilities. It is well-known for its large wooden walking hall, wooden and brick pump room, a spa house (formerly a social house) and a spa theater with exceptional interiors, all of which are located in a single row of buildings along the main avenue of the spa park. These facilities are popular attractions of the spa town, its showcase and the main elements shaping the cultural landscape of this place. Most of the buildings in Szczawno-Zdroj, including spa facilities, were built in the 19th century and in the first decades of the 20th century.

It is dominated by sparsely located buildings, mainly villas, guesthouses and other residential buildings, all of which share some features. The buildings have two to four floors with steep, multi-pitched roofs, partly with mansard roofs, covered with tiles. Many buildings have decorative elements in their wooden structure, porches, balconies and other decorations [5]. Some of the residential buildings built in the 1920s and 1930s have an Art Nouveau decor.

Similarly to other Lower Silesian spa towns, Szczawno was not significantly damaged during World War II.

Just as the Grand Hotel, the "Baths" building (now the Natural Medicine Institute) erected in 1938 was, in those times, considered the most modern buildings of this type in the Sudeten area. Owing to the good condition of the entire spa infrastructure after World War II and their high standard it was possible to quickly resume operation after the war. Already in 1946, the first patients came to Szczawno-Zdroj. Most of the "pre-war" spa facilities offer spa treatments to this day.

New development in the area of Szczawno-Zdroj after 1945

Practically until the 1960s the town did not have any new buildings. In the first decades after the war most of the activities focused on making use of the existing infrastructure.

The Szczawno-Zdroj spa town is an attractive place of recreation and leisure both for patients and local residents. Starting from the 1960s, More and more people from the neighboring communities, especially residents of the industrial and "polluted" Wałbrzych, started viewing the spa town as an attractive place to live in due to its landscape and climate. At the end of the 1960s Szczawno-Zdroj saw a boom in private housing, which peaked in the 1970s and 1980s. This process continued in the following years, but on a much smaller scale. The 21st century brought with it small-scale multi-family housing, in the form of individual buildings and small residential complexes.

The 1960s and early 1970s were not very conducive to the development of individual single-family housing. The same situation occurred in Szczawno-Zdroj. The construction of houses was subject to numerous limitations, mainly regarding maximum usable space of the building and maximum plot area. These limits, especially in the initial period, virtually eliminated any originality from proposed solutions. Additionally, in those years, it was difficult to obtain building materials other than the basic assortment, which was only available in small quantities. Because of these circumstances in the late 1960s, but primarily in the 1970s and 1980s, the basic shape of a single-family building that met the requirements and made use of simplified construction technologies was a cube, also known as "the Polish cube", with characteristic flat, mono-pitched or hipped roofs. These types of buildings were preferred for private construction projects mainly due to economic reasons and practical implementation possibilities. Seeing them as examples of modernist design was rather an excuse for building difficulties than an actual implementation of real ideas of modernism.

The residential development built since the 1960s in Szczawno-Zdroj can be divided into two types. The first is "supplementary" development and includes buildings that are erected in the vicinity of already existing development. This approach was facilitated by the compactness of these cube-shaped buildings, making it possible to build them on small plots that often used to serve as gardens of other buildings. The second type is new, micro-estates, or rather housing complexes, built in previously undeveloped areas located within the city limits. There are several such clear clusters of new buildings in Szczawno-Zdroj. Since the area of large plots for potential investments within the existing development of Szczawno-Zdroj was limited, housing was mostly built in undeveloped space.

The aforementioned, dominant cube-shaped design of private housing projects, which was also prevalent in areas with exceptional, therapeutic qualities, is the symbol of that era and its methods of building single-family houses. It was the result of the possibility to use the available resources and of specific economic opportunities.

Later, in the 1980s and 1990s, in keeping with the general trends, the image of private housing projects started changing gradually, also in Szczawno-Zdroj. The traditional box-shaped buildings gradually disappeared from the landscape of newly-constructed buildings. The houses tended to have distinctive features. Steep roofs covered with tiles reappeared and the shapes of buildings were more diversified.

Fig. 2. Main private housing complexes in Szczawno-Zdroj. Edits made by author, map source: mapa.livecity.pl/miasto/Szczawno-Zdr%C3%B3j,0984574 (accessed on 25.06.2017)

1. Spa sanatorium no 1 (former Grand Hotel). 2. A complex of spa facilities – pump room, walking hall, spa house (White Room), spa theater. 3. Natural Medicine Center. A, B, C, – single-family housing complexes

The estates that were built over this period of several decades have a mixture of building shapes ranging from "cubes" to more individual forms. This diversity, which also resulted from the lack of clear guidelines for building shape design, often produced development with heterogeneous appearance. As a result of the urbanization process that began in the 1960s, Polish spa towns gradually ran out of investment plots and thus have lost the possibility to further develop the spas located in their area [6]. The formation of new buildings is, in a sense, a natural and unavoidable process in the the development of a given area, but if it is too intensive, it may result in the degradation of the cultural landscape and thus change the traditional image of the spa town.

Housing in the second half of the twentieth century in the city landscape

The historic buildings of Szczawno-Zdroj which have survived till today largely consisted of guesthouses, villas, hotels and residential development. After World War II, guesthouses and hotels were turned into sanatoria and holiday homes, among others, the pre-war Grand Hotel was converted into a spa sanatorium. A large part of the remaining buildings consist of detached single-family and multi-family homes.For years the layout of the spa part of the city has remained virtually unchanged. The few reconstructions of individual facilities made in the post-war years do not significantly change the image of the city. The current image of the spa part is the result of modernizations, especially those carried out since the turn of the 20th and 21st centuries. In recent years such works included the renovation and reconstruction of the main walking routes in the spa, renovation of the square in front of the main sanatorium, thorough renovation of the spa theater (in the years 2008–2011) and many other investments that contribute to the contemporary image of the spa.

In the seventies and eighties, a period of intensive construction of single-family housing, the free plots in the vicinity of existing houses were filled with new residential development. The cube-shaped buildings stand out among the historical development. They are distinguished by flat roofs which are different than the traditional, steep roofs covered with tiles. Apart from the roof, their shapes and sizes do not differ significantly from those built earlier.

Fig. 3. Single-family homes – „cubes" among the existing development. Photo by author

Fig. 4. Single-family housing from years 70 of the 20th century (A – in Fig. 2). Photo by author

Fig. 5. Single-family housing complex (B – in Fig. 2). Photo by author

Fig. 6. Single-family housing complex (C – in Fig. 2). Photo by author

Szczawno-Zdroj is town located in an attractive landscape, surrounded by hills and forests. A large part of the town is occupied by green areas with rich vegetation, including two English-style parks: the Spa park, near the spa part of the city and the Swedish park, whose area includes a recreational and residential part of the city.

The image of the city is also influenced by individually designed gardens and yards about the houses, which naturally blend into the characteristic landscape of the spa and are an important element of Szczawno-Zdroj development. The carefully maintained green areas surrounding the new development soften the differences between the shape of the new and traditional buildings.

The housing development from the seventies and eighties, which forms new urban complexes and mostly includes cube-shaped buildings, does not significantly differ from similar housing estates in other locations. It is difficult to find original solutions in the Szczawno estates that would correspond to the spa architecture or have purposely designed features of vernacular architecture. Residential building complexes created in the second half of the 20th century are concentrated in areas located outside the main spa part of town. Despite their high intensity, the scale of these buildings in relation to the historical development is not very large. They do not stand out in the landscape of the city and its spa part, which is mostly dominated by older historical buildings. Also, they do not influence how the city is perceived by patients, whose activities are concentrated in the central spa part of Szczawno-Zdroj.

Summary

The new housing development which was started in the late sixties in the spa town of Szczawno-Zdroj is a permanent element of the modern landscape of this spa. The appearance of buildings erected in the 1970s and 1980s reflects the typical principles and technologies related to the design of single-family houses, available nationwide at that time, and does not have any regional features that correspond to the design of buildings in the spa. The new buildings are visible in the city landscape, but mainly in individual streets and parts of the city that are distant from the central part of the spa, and they do not significantly change the cultural landscape of the resort. The traditional image of Szczawno-Zdroj mostly consists of historical buildings concentrated around the central part of the spa and directly related to spa services, as well as of other buildings in this section of the city. The intensive development of single-family housing in the 1970s and 1980s was largely stopped, not only by the shortage of investment plots but also as a result of the difficulties brought by structural changes that took place in the 1990s in the neighboring Walbrzych as well as by the difficult economic situation in this region. In those years, its inhabitants largely contributed to the development of housing in the area of Szczawno-Zdroj. The second half of the twentieth century saw the development of private housing projects. Among the reasons why only these kinds of projects were built in this period and not multi-family houses could be the lack of demand for such investments in a town with only 6,000 residents, as well as the construction of large housing estates in Wałbrzych, which consumed the opportunities for the development of this form of housing in the surrounding areas. The final years of the twentieth century and the first decades of the twenty-first century brought an investment to Szczawno-Zdroj aimed at improving the existing development, modernizing and reconstructing some buildings, including those built after the war, and building multi-family houses, whose size and location does not compromise the traditional cultural landscape of the spa town of Szczawno-Zdroj.

The housing development built in the second half of the twentieth century in the spa town of Szczawno-Zdroj only marginally changes the cultural landscape of this place and does not compromise the traditional image of the spa. The location and shape of new buildings takes into account the scale of existing buildings and the unique spa nature of the city landscape.

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Zabudowa mieszkaniowa miejscowości uzdrowiskowej Szczawno-Zdrój drugiej połowy XX wieku

Streszczenie: Tematem artykułu jest kształtowanie się zabudowy mieszkaniowej na terenie Szczawna-Zdroju w II połowie XX wieku. Przez wiele wieków rozwoju miejscowości i uzdrowiska zlokalizowanego na tym obszarze, ukształtował się jego obraz, w znacznym stopniu zdeterminowany przez obiekty związane z lecznictwem uzdrowiskowym.

Na podstawie analizy sposobu kształtowania się zabudowy mieszkaniowej, powstałej w omawianym okresie, dotyczącej zarówno formy obiektów jak i ich lokalizacji na planie miasta określono stopień ingerencji nowej zabudowy w istniejącą infrastrukturę ze szczególnym uwzględnieniem jej wpływu na wizerunek historycznej części miasta kształtowanej głównie przez obiekty uzdrowiskowe. W pracy poddano analizie wpływ budownictwa mieszkaniowego tego okresu na tradycyjny krajobraz kulturowy Szczawna-Zdroju.

Słowa kluczowe: Szczawno-Zdrój, lecznictwo uzdrowiskowe, zabudowa mieszkaniowa

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Brześć – the city of an eastern borderlands, architecture of the 2nd Republic of Poland

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Summary: The borderland, often called „ land lost" are becoming the places we often return to in our memories, the need of rediscovering them arises. The past might be described in a different way: through pictures of different life styles, architecture, people, tradition. It is natural they create longing and sorrow caused often by the lack of acceptance of modern life styles. Because borderland towns are located abroad, their architecture, tradition, culture, literature are our cultural heritage and we shall not forget it.

The phenomenon of the lack of bond of people and places observed today, makes "places with no soul". Steering and controlling people, people's needs, emotions, make a person an object. A man loses oneself, loses one's soul. Many places are being ruled by a moment, similarity, rush and loneliness There are no history, past in them, there is only the present moment and they are characterized by the similarity. We cannot interpret them and we have no bonds with them.

Key words: identity of a place, ethnical identification, ethnical identity, architecture and urban planning of a place

> *A man lives through understanding places. The more content he can learn through his own openness and sensitivity, the wider his spiritual topography is and the richer his world becomes. Widening his world he also shapes the size of his soul.*[1]

Introduction

We live in times of constant changes and people moving from place to place, which is visible especially in towns. Traditional town space, that used to identify us, stopped its functioning as a place of particular values we experience, and which influence people in a great way.

This movement of people, constant change of a place bears a need of stopping and reflecting. Nowadays' space so dominated by a fast pace becomes " alienated' and "extirpated".

In any town space we can see long forgotten places or buildings which actually are situated in great locations. Sometimes useless and alien, the buildings have their own history, depending on the kind of an ownership they can be neglected, showing visible signs of time passing and changes connected with the ownership, but also they can keep their glory.

When those buildings encounter with the flash of a photo camera there is a chance of catching an attention and those buildings in the photos become alive.

An empty house without residents does not seem to be secure, friendly and warm. It is not a kind of the house we remember with pleasure. Nobody returns to abandoned houses, nobody wants to return. A house is always connected with human fate from the birth to the death.

1 S.44 H. Buczyńska – Garewicz, Miejsca, strony, okolice, przyczynek do fenomenologii przestrzeni. UNIVERSTAS, Kraków, 2006

Thanks to photographs forgotten places or houses start living again, we can turn our attention to them, ponder on the present moment, passing away and oblivion. Places we do not care of or we do not remember about are disappearing, they become erased from our memory.

The past can be recalled, described in different ways, it can create nostalgia, sorrow for something lost. When a crowd of unknown people accompanies a person the lack of trust is born, we do not open towards people or places. Staying silent is also one of current styles of life. Today's man moves from place to place with 'baggage of own experiences' from the previous place and one is an example of an 'extirpated man'. [2]No sentiments, emotions, bonds, traditions, history connect him with a new place. Constant choices, fast changing style of life have dominated modern life of a man.

This impersonality and anonymity of life in town space is being seen in their character. Our lives are dominated by non-places, places where people meet briefly. Our social life is led in such non-places. They not only escalate, but also create a feeling on " extirpation".

These is the space of existential loneliness, characterized by the lack of address, unification, without hints of identity[3]

Present "unfamiliar and familiar citizen"

"*Unfamiliar citizen*" is one who very often moves from one town culture to another, with his "baggage of experiences" connected with the previous places to want a new place of a living soon. " Unfamiliar" claims a place as his own only for a short moment. Nothing connects him to this place, no emotions, bonds or people. "*Familiar citizen"* model is social in his character, he realizes himself through non-materialistic values: spiritual and symbolic.

Since the early beginning people have realized their common aims in community. The identity has been the effect of strong social bonds. The two models can be read as some kind of the manifesto of discord. Nostalgia, security, being in the opposition towards globalization, technology, consumerism, movement of people.[4]

Meanwhile Parsons, an author of the functional- structural theory of social systems believes a man in his contact with the modern world needs to discover own identity. He claims the individual identity results from his participation in social life, that he considers gradually as his own. Totality of patterns, ways of behavior binding a particular society, but also the norms, symbols and cues are becoming understandable for the people and due to that they can shape efficiently the behavior and identity.[5]

Town identity vs ethnical identification[6]

Cities and towns have bonds with the history of their development, planning idea, design and building, which are visible in urban planning and architecture. " *To full identification of a place we do not only need the knowledge of physical parameters, but also we need to know human activities which are connected with this place, or*

2 More M. Auge, Nie – miejsca, wprowadzenie do antropologii hipernowoczesności, Wydawnictwo Naukowe PWN, Warszawa 2012, Marc Auge to światowej sławy francuski etnolog i antropolog kulturowy.

3 Good points of the perception of public space are researched both in the field of urbanization and environmental sociology and psychology. When speaking about sociology we need to turn out attention to the research connected with town space, social issues and a person. Patrick Geddes, sociologist and naturalist, was speaking in 1904 about the use of sociological knowledge during building of towns. The most known of his continuator were Lewis Mumford, Paul A. Bell, Florian Znaniecki, Stanisław Ossowski, Aleksander Wallis.

4 Paprzyca K. „Terytorium, sieci, plemiona", Monografia / Politechnika Krakowska im. Tadeusza Kościuszki, Seria numer 546, 2017, ISSN 0860–097X s.151–169, 2017

5 More PARSONS T.(1951), The social system, Glencoe, Illinois, The Free Press

6 Identity – relation between each object and the object itself, identity, equality " New Encyclopedia PWN, Warszawa 1997, book 6, page 433" Identity is the 'deepest ' dependence taking place between perceived surrounding together with its historical elements: content (culture, tradition of a place) and form (canon of a place), page 24 Z. Myczkowski, Ladscape as the identity expression in chosen protected places in Poland, Kraków Institute of Technology, 2003. Identity is one of the most important characteristics of culture and art. Identity stems from the relation between the architecture of a place with space where it is created, integral part of the nature and with people who live in the space.

which are associated or forecasted, also a description of terms possessed by people about the ways of behavior in a particular surrounding.... It can be stated that the profound urban and architecture project is to create places[7]

Architecture and architectural content of a place can change through time[8] and are dependent on environment, society and architecture.

Małgorzata Bieńkowska-Ptasznik believes ethnical identification[9] and ethnical identity is created based on the opposition between "familiar" and "unfamiliar". It has always been one of the vital aspects of molding spiritual values and the identity both in space and society. Sensually remembered details lead to spiritual reflections and experiences. Color, sound, taste are the impulses moving us in time and space to loved places. The skill of seeing reflections or values with our own senses, teaches us to take joy from ephemeral moments lived in different places in our life.

At the borderland we can meet constant stress on ethnical identity. Different ethnic groups coexist there and they have quite complex relations. Ethnicity makes a specific kind of a symbolic capital, a language is strictly connected with ethnical identity. Ethnical identity can be seen in everyday life, through a language, behavior, bonds, outfit, cuisine, religion and architecture.

Brześć on the Bug – architecture of the 2nd Republic of Poland

Brześć is the town with unpleasant fate, begrimed by wars, catastrophes and victories. The location was not in its favor. Today it's located near the border with Poland, at Belarus side. Once a Polish town with the majority of Polish residents[10].

During the annexation of Poland, its urban structure reminded a village, with no town center with historic buildings. Because of the WWI, Polish – Bolshevik war, millions of buildings were destroyed as well as the railway infrastructure of the town. For a long time this place remained backward and neglected by the authority. The majority of buildings in Brześć were wooden and seldom higher than one floor. While in that time at the Prussian Partition other cities enjoyed bricked buildings. Russian authorities, contrary to the Prussian one, did not invest in building public buildings. Such a situation led to the fact the architecture of that time was visually unattractive.

Fig. 1. Brześć nad Bugiem (Białoruś) ul. Unii Lubelskiej currently ul. Lenina, photo K. Paprzyca 2018 r.

Brześć on the Bug was destroyed, when in 1831 the city was almost totally demolished due to Russian order. On its place Fort Brześć – one of the most powerful fortresses- was built. At north- east side a new town was created, with a very regular plan. The laws forced the architectural character, mostly wooden structures,

7 K. Lenartowicz, On psychology of architecture, Institute of Technology, Kraków, 1992, page 35

8 „Pondering on a Man, characters of community life, culture there is a conviction of extraordinary importance of space which made and still can make an objective base of shaping the bond between people", page 59, R. Dyoniziak ,K. Iwanicka ,A. Karwińska ,Z. Pucek, Society during the process of changes, Framework of general sociology, Towarzystwo Autorów i Wydawców Prac Naukowych UNIVERSITAS, Kraków 1994 r.

9 Małgorzata Bieńkowska-Ptasznik „ Individual Ethnical Identity in a contest of borderline" „ Ethnical identity is one of the crucial kinds of identity. Individual identity has been treated for a long time as something that shapes itself up to a certain moment, later is becomes something permanent in human's life." Page 324 Małgorzata Bieńkowska-Ptasznik

10 More Dołgowski Andrzej, Brześć on the Bug, Travel Through Time 1919- 1939, W.L.Anczyca S.A. Publishing, Kraków

bricked ones had limited height and they appeared sporadically[11] The main axis was created by Unii Lubelskiej Street (currently Lenin Street), along which many public – usefulness buildings were built. Till today they have been a showcase of that time. (Fig. 1.)

In the face of a difficult socio- political situation of the 1920s and 1930s Polish authorities, state and local, undertook investment actions that could help increase the level of residents life. The works connected with railway infrastructure, roads, sewage and pipes systems, building sites were introduced. The town structure was reshaped. Many architectural projects were realized in the interwar times and some of them still play a great role.

Banks, cinemas, sport facilities were being built; parks and greenstones were created. Those buildings were responsible in a great way for socio- cultural changes, due to them the life style was changed: sport activities, going to the cinema, doing shopping in elegant shops. The architecture that was created at that time was traditional at first, later gradually it became more modernist.

A crucial aspect connected with urban change in Brześć was the action of building residential houses. It was realized after 1924 and it was focusing on buildings built for Polish state officials (so-called official colonies). The most remarkable architects were invited to the Project, and they were designer and built in many borderland towns, also in Brześć. They often based on the concept of town- garden, they characterized with symmetrical town zone. They consisted of loose residential houses, surrounded by greenery, connected by streets or lanes. Official district in Brześć has high quality of architectural form and urban planning. The projects remains in a great shape even today. Most buildings were planned by Julian Lisiecki, some project were made by Marcin Weinfeld.

Fig. 2., 3. Brześć nad Bugiem (Białoruś) so-called official colonies, photo K. Paprzyca, 2018

Fig. 4., 5. Brześć nad Bugiem (Białoruś) so-called official colonies, photo. K. Paprzyca 2018

11 More Pzczółkowski Michał, Modern Borderland, Architecture at the Eastern Lands of the 2nd Republic of Poland 1921–1939, Księży Młyn Publishing, Łódź 2016

The main architectural pattern was Polish manor together with typical elements like porch, arcades, corner buttresses, tall – two –four hip roofs. One of the life centers was official casino, having more expressive style (Fig. 2., 3., 4., 5.).

Brześć, the same as other borderland towns from that period of time, had master plans ("Wielki Brześć" 1929). They aimed to integrate city terrains with suburbs, creating one big city organism. A lot of projects were not realized before the WWII.[12]

Architectural form of the buildings built in Brześć and other borderland towns mirrored stylist tendencies created by the best architects: Adolf Szyszko-Bohusz, Stefan Szyller, Kazimierz Tołłoczko, Szymon Syrkus, Bogdan Lachert and many more. In this way they tried to integrate borderland with the rest of the country. The national style was dominant, aiming at familiar effects through characteristic details and elements of Polish historic architecture. One of the popular models was a model of a manor, with simple mass and slopping roof. New architectural projects appeared with time – public buildings with their neoclassical style. This style represented seriousness, representativeness and it was esthetic. The building of Polish Bank may be an example, it has remained in a good state till today. A designer Stanisław Filasewicz used neo-classical convention (Fig. 6.).

Fig. 6. Brześć nad Bugiem (Białoruś) The building of Polish Bank, photo. K. Paprzyca, 2018

Fig. 7. Brześć nad Bugiem, Provincial Department in Brześć and Health Organization building, photo K. Paprzyca, 2018

12 More Pszczółkowski Michał, Modern Borderland, Architecture at the Eastern Lands of the 2nd Republic of Poland 1921–1939,, Księży Młyn Publishing, Łódź 2016

In the late 1020s so-called functionalism appeared in the designs, depending function on the form, flat roof, windows in the shape of stripes, modern steel or concrete construction. It dominated the school and medical facilities architecture. Health organization building in Brześć May be the example. Designed by Szymon Syrkus, has the same function in our times (Fig. 7.).

Conclusion

Borderland that gradually receive the status of „lost lands" are becoming places former residents return to and also the need of rediscovering them arises.

Sentiments connected with places we live in reject global culture of " shock", culture of risk that is a threshold of development of civilization. Bonds, social identification with a place of the living, the sense of identity and lasting do not have a place in modern relative and commercial world.

The need to live and be in "own place", "own town" resulting from the needs and styles of life, may become one of the crucial guidelines for modern people. It can also be one of the most important models of human lasting and events.

Town environment has always been the place of creating important values for civilization development: material, cultural, esthetic, emotional, spiritual; but also the processes, like: communication and social exchange, identification, information. They were characterized by values, like: material, cultural, spiritual, quality, rareness, identity and climate.

Because borderland towns are located abroad, their architecture, tradition, culture, literature are our cultural heritage and we shall not forget it.

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Spatial concepts of the work environment

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Abstract: Technological changes and universal digitization have a significant impact on shaping the architectural environment of work, study and innovation. The article discusses the subject of determinants of the spatial concept of the work environment based on BMW office buildings in Munich, Germany. Based on selected examples of office buildings in Munich from the 1960s and contemporary implementations, an attempt was made to describe the factors affecting the functioning of the office work environment and its organization.

Key words: architectural work environment, office, innovations, modern work place

Work environment and its functioning

High access to mobile technologies and modern communication methods increases the possibilities of exchanging ideas in today's world, but also affects high design requirements for work environments. Work in the office is primarily a broadly understood exchange of information. The architecture of the work environment should support and promote processes occurring in a given workplace. To achieve these goals, the diversity of space in the work environment is needed. At the same time, the working environment should be ergonomic. According to Eurofound's European Working Conditions Survey of 2015[1], 26 percent of employees believe that their work environment has a negative impact on their well-being. The task of architects is to minimize the negative effects of many hours of work in the office. This issue does not only concern the interior but also many conditions and technical solutions. While designing offices, one should take into account a number of factors that affect the use and impact of the building, while ergonomic functioning in the work environment refers to the workplace perceived in the ***macro*** scale – the scale of the entire building and the ***micro*** scale – considered as customizable individual work places[2].

The macro scale refers to the supply of energy, heat, adequate air circulation, acoustics, natural lighting, appropriate communication routes and the clarity of the building. All these topics are connected with the costs of functioning the building, energy demand, its impact on the environment and ecological assessment as well as the area per employee. These factors are also determined in various ways by the needs, profile and business goal of a given company. Range of factors on a macro scale takes into account the cooperation of the organization as a structure with the technique needed for the functioning of the building.

The micro scale is perceived subjectively from the perspective of individual workplaces. Functional requirements and the ability to customize them for individual employees' needs are very important in this assessment.

Currently, architectural investments should not only fulfill the technical conditions and be a response to the investor's expectations, but also the quality of the design and construction process is more important. Nowadays, the quality, functioning and impact of buildings are subject to certification processes. Certification affects the value and market competitiveness of the investment, a favorable image in social perception, as well as promoting the high quality of construction. There are several international building certification systems,

1 Eurofound: The European Working Conditions Survey 2015. Available on the Internet: www.eurofound.europa.eu/en/data/european-working-conditions-survey [Access: 09.01.2019]

2 Geberzahn W., Der Arbeitsplatz im Büro: Aspekte der modernen Bürogestaltung, Die Bibliothek der Technik, Donauworth, Germany 1994

one of them is the Sustainable Building Certificate (DGNB – Deutsche Gesellschaft für Nachhaltiges Bauen)[3]. The DGNB certificate is awarded on a 4-point scale: DGNB Bronze, DGNB Silber, DGNB Gold and DGNB Platin. In terms of quality, 6 main thematic sectors are assessed: technology, ecology, economy, social and functional quality of the building, the design and construction process of the building and its impact on the quality of the surrounding environment.

Factors for assessing the concept of the work environment

The factors for assessing the different spatial concepts of the work environment are divided into three main groups. The first of these are architecture-related factors, such as area, location or transport connections. More subjective references are split in two groups of factors. The division concerns the perspective of the employer and the employee. In the ideal model, the goals of both groups should be convergent, but in practice this is not a simple task, because, for example, employees want flexible working conditions, which to the employer means a reduction in the level of control.

I Factors determined by architectonic conditions:
- Plot: location, terrain conditions, possibility of expansion
- Space use: amount of greenery, density of buildings, parking spaces
- Transport connections: access to public transport
- Service context

II Factors important from the perspective of the Employer:
- Company policy and profile
- Profit
- Development
- Perception of the company, its internal and external marketing objectives
- Work efficiency
- Costs of building maintenance, energy efficiency

III Factors important from the employee's perspective:
- Functionality
- Concentration
- Adequate lighting, air and temperature
- Perspective of development
- social facilities
- Identification with the company

When assessing the spatial concepts of a given work environment, it is also important to take into account the **distractions in the workplace** and their negative impact on employees. The main problems are the noise related to constant phone calls or loud devices and the lack of sound absorbing elements. Lack of proper acoustic barriers between rooms and individual workstations significantly worsens the quality and efficiency of work in the office. Another important factor is proper lighting. Light reflections, too much contrast, inadequate light direction exclude some places as suitable for work. Currently, various combinations of light sources indirectly illuminating the room, eg directed upwards, and giving light directly to the workplace, usually individually adjusted to the needs of the employee, are increasingly used in the design.

Another important factor having a negative impact is the poor microclimate in the building. Poorly adapted temperature or humidity of the room, too small stream of conditioned outdoor air, inappropriate distribution of air in the space of rooms are the most common defects degrading jobs and the well-being of employees.

3 Deutsche Gesellschaft für Nachhaltiges Bauen: DGNB GmbH, *Kriterienkatalog Gebäude Neubau* Stuttgart, Germany, Available on the Internet: www.dgnb-system.de/de/system/version2018/kriterien/ [Access: 09.01.2019]

In the scope of equipment, attention should be paid to the selection of furniture and equipment. With sedentary work, many workers suffer from backache, headaches and shoulders. The human body is not adapted to being immobile for many hours. An effective solution is to introduce the possibility of lifting the table and the possibility of temporary standing work. The surrounding materials and colors should also not be distracting. Often a good solution is to introduce subdued colors that harmonize with natural greenery. All these elements should harmonize with the organization of work as well as the specificity of the company.

Development of the concept of office space

The development of BMW office buildings over the years shows the characteristic features of transforming the concept of office space and the factors contributing to these changes. In 1968–1973 an office building was built in Munich BMW-Vierzylinder[4].

The property is located close to the Munich Olympic Park. Karl Schwanzer was the architect. He created an object in the shape of 4 vertical cylinders placed next to each other. It is a characteristic form that is a dominant in the urban landscape of the city of Munich. In the center of the building there is a communication core, and in 4 cylinders there are open space offices. In this type of office space there are many factors that can contribute to the dissipation of employee concentration. This is not a good arrangement when you need silence and concentration. From the point of view of the employer it is a system in which it is easy to control the progress of work, but when in the late 80's Frauenhofer Instytutut (IAO)[5] conducted a survey in which employees were asked if they would like to continue working in open space offices as many as 94 percent of people answered that they did not like such an office organization, and only 6 percent of respondents wanted to continue working in an open space[6].

Due to the imperfections of such solutions, already in the 1970s, opportunities to improve working conditions began to be sought. The concept of group offices for about 15 personal teams of employees was proposed. In later years, many ideas were created in which a compromise was sought between work in a group and individual work. In the second half of the 1970s, the first mixed office was established in Scandinavia[7].

This solution was a compromise between an open space office and individual workplaces. A very good example of the implementation of this concept is the BMW FIZ – Projekthaus project that was created in 2004, which include the BMW brand research and innovation center.

The building is designed on the basis of a square of 100 by 100 m, and its central part is the place of communication and exchange of ideas. The internal organization of space is not typical, because in the middle there is a public workshop surrounded by offices. Thanks to the central part, communication between project teams located on different floors is facilitated. On each floor, employees deal with different technologies, but all stages are visualized in the central part in the form of quickly created models and prototypes. The central workshop is a functional platform for the exchange of knowledge and coordination of all emerging solutions. It also gives designers the opportunity to quickly change the work tool between a virtual model on a computer screen and a physical model. This is an example of how you can combine individual workplaces and open spaces for individual tasks and communication in a team. The four floors of the facility consist of four office spaces for approximately 70 to 120 workplaces where there are also two levels connected by spiral stairs, which facilitates communication between particular project departments[8]. Thanks to this architectural form, the work rooms are clear and support appropriate work organization as well as team and task identification of employees.

The described BMW brand innovation center is one of several buildings within the large premises of the Innovation Center, which comprises office and research buildings. In the urban design project, the entire office complex is planned to be expanded in the near future. The assumption covering a complex of new buildings

4 BMW-Vierzylinder: BMW office building with the shape of four connected cylinders, also called the BMW Tower

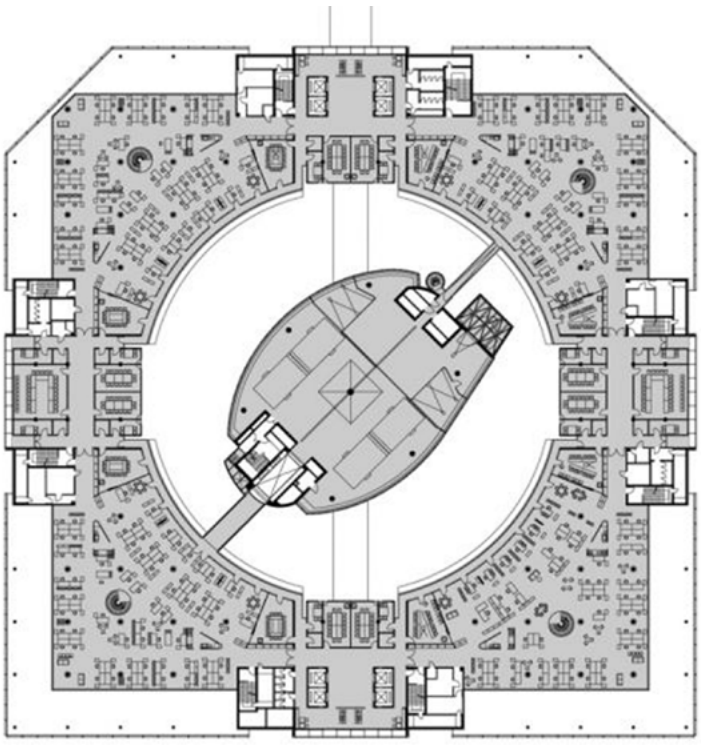
5 Frauenhofer IAO: Frauenhofer Institutut für Arbeitswirtschaft und OrganisationInstitute of Economics and Work Organization, Available on the Internet: https://www.iao.fraunhofer.de/[Access: 26.01.2019]

6 Geberzahn W., Der Arbeitsplatz im Büro: Aspekte der modernen Bürogestaltung, Die Bibliothek der Technik, Donauworth, Germany 1994

7 Geberzahn W., Der Arbeitsplatz im Büro: Aspekte der modernen Bürogestaltung, s.36 Die Bibliothek der Technik, Donauworth, Germany 1994

8 HENN GmbH, Available on the Internet: www.henn.com/de/projects/office/bmw-project-house [Access 26.01.2019]

is to have an area of approx. 157,000 m² and will be located in the district of Munich – Milbertshofen. The development and innovation center FIZ is the largest research center of the BMW Group. At several stages of development and expansion until 2050, additional job opportunities will be created for approximately 15,000 employees[9]. The expansion and reconstruction of FIZ is therefore not just an investment in the future of the company, it is also an investment in modern and attractive workplaces. The work environment will be flexible, fill up with spaces that support innovative solutions and give the opportunity to quickly test the software created on the basis of vehicle prototypes in the workshop. The BMW Group in cooperation with the City Urban Planning Department of the City of Munich has launched an architectural competition for the urban design of the entire BMW FIZ. In September 2014, the architectural office HENN[10] won this competition. The main assumption is the creation of a central spine connecting the entire plot.



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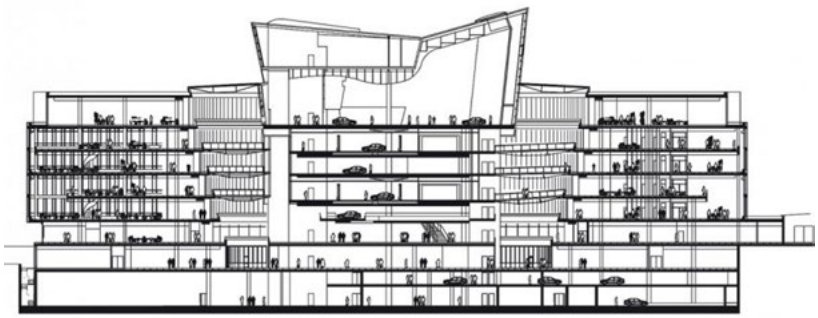

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10 HENN GmbH, Available on the Internet: www.henn.com/de/projects/industry-urban-design/bmw-fiz-future [Access 26.01.2019]

Fig. 3. Visualization showing the entirety of the BMW FIZ. Available on the Internet: http://www.henn.com/de/projects/industry-urban-design/bmw-fiz-future [Access 26.01.2019]

Wizualizacja pokazująca całość założenia BMW FIZ. Dostępny w Internecie: http://www.henn.com/de/projects/industry-urban-design/bmw-fiz-future [Dostęp 26.01.2019]

Fig. 4. Visualization showing the interior of the BMW FIZ mainline. Available on the Internet: http://www.henn.com/de/projects/industry-urban-design/bmw-fiz-future [Access 26.01.2019]

Wizualizacja pokazująca wnętrze magistrali założenia BMW FIZ. Dostępny w Internecie: http://www.henn.com/de/projects/industry-urban-design/bmw-fiz-future [Dostęp 26.01.2019]

The project also provides the creation of a cafe, park and sports fields. This is also aimed at better integration of the entire complex with the urban plan, creating areas for the community of this district of Munich. The central theme for the design of new work opportunity at BMW FIZ is the activity based working.

Under this assumption, free access and the possibility of using a flexible and diversified office environment, which is designed to offer many types of space. The employee can effectively manage time, tools and place of work according to the needs. In the space, for example, a specially silenced chat room is provided, you can have a telephone conversation without disturbing others at work. Stairs and vertical communication, in addition to their standard communication function between floors, are also the social space. The possibility of sitting and interacting with others employees on adapted steps was created. This is an example of a place for informal meetings. There were also designed places for formal meetings at a large design table. Another element of space are concentration workplaces. These are places separated by acoustic walls that fit into standard workplaces and so-called desk sharing, which is shared between employees, not every seat is assigned to only one employee. Through mobile technologies, work does not have to be associated with one permanent place. A very important space is the so-called 'Think Tank', which is the focal point for the development of new ideas, a place for meetings and exchange of experience while creating projects. The best solutions are to be created in such zones, often unconventional and spontaneous. According to this concept, this space should stimulate creativity and offer space for regeneration of strength. Cooperation, accessibility and activity of these slogans well describe current trends on the labor market, where creativity and innovation are the most desired by employers. The work environment created by architects should support these features.

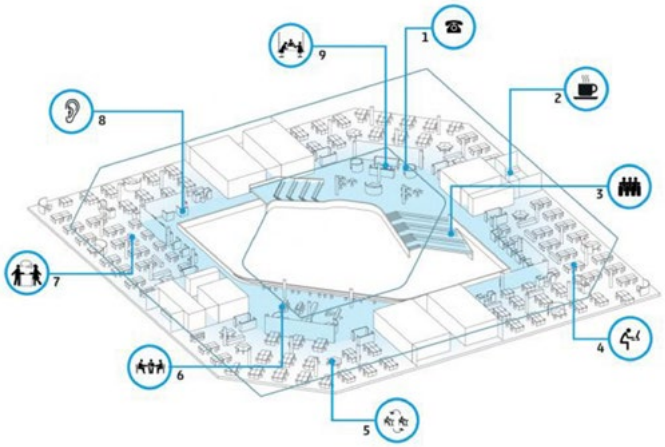

Fig. 5. A schematic diagram of the function of one of the storeys of the BMW FIZ showing the concept of activity based working.
Markings: 1 – A place for calling, 2 – Kitchen, 3 – Stairs with additional seats, 4 – An individual work place, 5 – Co – Working, 6 – A place for informal meetings, 7 – A place for discussion 8 – A focus area, 9 – A place to look new ideas (Think Tank) source: Henn Jahrbuch 2016, Munich, Germany 2016, p. 54

Schemat funkcji jednej z kondygnacji założenia BMW FIZ pokazujący idee activity based working. 1 – Miejsce do telefonowania, 2 – Kuchnia, 3 – Schody z dodatkowymi siedziskami, 4 – Miejsce pracy indywidualnej, 5 – Co – Working, 6 – Miejsce spotkań nieformalnych, 7 – Miejsce dyskusji 8 – Strefa skupienia, 9 – Miejsce poszukiwania nowych pomysłów (ang. Think Tank) źródło: Henn Jahrbuch 2016, Monachium, Niemcy 2016, s. 54

According to the survey estimates Hays, Kinnarps, Skanska[11] in Poland, currently, around 5 percent of offices are flexible workplaces with a dominant open space model of around 75 percent. Aleksandra Krawsz-Kubica, Marketing & PR Manager, Kinnarps Polska, wrote about office based activities of a business-based nature: *Arrangement of space in the ABW concept is natural. It resembles a home where we have specialized spaces, among which we move during the day according to the type of task – we eat in the dining room, sleep in the bedroom, etc. Similarly at school, where we use special laboratories to learn individual subjects. In the office arranged according to the Internal Security Agency we deal with a flexible work model in which the employee changes the place of performing activities several times during the day according to their nature 12*. Work should not be seen as a place where we spend 40 hours a week, but as a process striving to achieve a given goal.

Contemporary trend: Work-Life Balance

Currently, mobile technologies have made a very large part of the work possible from anywhere, and more often what we are working on is a virtual product. Through the development of electronics, telecommunications and the Internet – an employee does not have to be closely related to a specific physical workplace. Technical capabilities allow for many solutions tailored to the needs of employees and employers. This trend is also associated with the so-called desk-sharing, ie the lack of assigned one work space and the sharing of space at work, depending on the needs. One person can work at home during this time, another at the office, so that in the following days these people will turn into a place of work. As a result, the employer's costs are minimized and the employee is given the opportunity to work flexibly. The Work-Life-Balance slogan was created for the balance between work and private life, which improves the work environment offer by attracting well-qualified staff. According to the "Mobility on a daily basis" message CBOS[13] a statistical Pole during the week dedicates 7 hours by car to commuting and 8 hours by public transport. By imposing the price of housing, which is very high in big cities, mobile work is gaining more and more popularity.

Summary

Technological changes, IT mobility and universal digitization of tasks have a significant impact on shaping the architectural environment of work, study and development. However, there is no one pattern for the perfect

11 Hays, Kinnarps, Skanska, Nie boj sie Activity-Based Working, Warsaw, Poland 2017 Available on the Internet: www.skanska.pl/oferta/biura/raporty-i-standardy/raport-nie-boj-sie-activity-based-working/ [Access 09.01.2019]

12 Hays, Kinnarps, Skanska, Do not Be Afraid of Activity-Based Working, Warsaw, Poland 2017 Chapter: Culture Activity Based Working, Available on the Internet: www.skanska.pl/oferta/biura/raporty-i-standardy/raportnie -boj-sie-activity-based-working / [Access 09.01.2019] p. 35

13 Kowalczuk K. CBOS Center for Public Opinion Research, Warsaw, Poland Available on the Internet: www.cbos.pl/SPISKOM.POL/2012/K_104_12.PDF [Access 09.01.2019] p.4

workplace. Arranging a workplace so that a balance between flexibility, individual and team work and the ability to control work progress is possible is also a challenge for specialists in other fields. The most important aspect is the response to users' needs and the reconciliation of often divergent expectations of employees and employers. The arrangement of a modern office should be preceded by an appropriate analysis of the needs of employees, the profile of the company's activity and possible development prospects in the future, as it happens in a large number of projects.

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Koncepcje przestrzenne środowiska pracy

Streszczenie: Zmiany technologiczne oraz powszechna cyfryzacja wpływają istotnie na kształtowanie środowiska architektonicznego pracy, nauki oraz innowacji. W artykule poruszono tematykę uwarunkowań koncepcji przestrzennych środowiska pracy na podstawie budynków biurowych firmy BMW w Monachium, Niemcy. Na podstawie wybranych przykładów budynków biurowych w Monachium z lat 60. oraz współczesnych realizacji, podjęto próbę opisania czynników wpływających na funkcjonowanie środowiska pracy biurowej i jej organizacji.

Słowa kluczowe: środowisko architektoniczne pracy, biuro, innowacje, nowoczesne miejsce pracy

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The earliest public green areas connected with Jelenia Góra, part. 2[1]

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Summary: In the third part of the 18th century the earliest public landscape gardens began to appear in the area of suburban Jelenia Góra. They were the first public parks in Silesia. When establishing them, the natural landscape features of the area were used (Karkonosze). Two of them, Hausberg and Helkon, were created at the end of the 17th century on the north-western side of the city.

Keywords: landscape gardens, public gardens, Silesia

Hausberg (currently Bolesław Krzywousty Hill)

The oldest destination of suburban trips for the inhabitants of Jelenia Góra was a hill located on the west side of the city, in the place where the Kamienna river flows into the Bóbr river[2]. The Bobr river flows there around a regular elevation, which is 375m above the sea level. Currently, this place is called Bolesław III Krzywousty Hill, but until 1945 it was called Hausberg. Both names refer to a castle that once stood there, apparently erected by the prince in 1111, and which was demolished by the people of Jelenia Góra in the middle of the 15th century. It was done with the consent of the government, in fear of the Hussites[3]. Not much remained from the original castle; still, the tradition of this place undoubtedly affected the inhabitants of Jelenia Góra. They used to pilgrimage there on Easter Eve and they often had bonfires on Midsummer night, as was reported in the sixteenth century by the poet Valturinus[4] from Jelenia Góra, as well as by the eighteenth-century chronicle writer Kaspar Gottlieb Lindner[5]. Imagination was also fuelled by legends of alleged treasures that were supposed to be hidden in the ruins of the castle, and which could only be found on Christmas Eve[6]. It is also worth mentioning that on the grounds of the Hausberg hill each year (on 7–9 October) pupils from Jelenia Góra, assisted by their teachers, used to fight simulated battles with the use of shields and helmets and weapons in the form of... clumps of grass[7].

1 The first part of the article was published in the journal Architecture, Urban Planning and Landscape Studies Folder, Vol. XIV / 1, 2018, p. 136–145.

2 The earliest descriptions of this place, as a destination for trips, appeared already in the publications from the late eighteenth century. [Zöllner J.F., 1793, p. 260–261], [n.a., 1795, Wegweiser, s. 37], [Weiss M.Ch., 1796, p. 63], [Hensel J.D., 1797, p. 763–764].

3 About the history of the hill [Łaborewicz I., 1998, p. 29–39].

4 Valturinus – actually Pancratius Geier; he was the author of the Latin poem Panegirycus Silesiacus praising Silesian cities; it was written in 1506 and published in the section about Jelenia Góra in German translation: [Geier P., 1740] and in the original: [Drechsler P., 1901, p. 52–67].

5 [Lindner K.G., 1742].

6 [Łaborewicz, I., 1998, p. 31].

7 [Łaborewicz, I., 1998, p. 31].

However, the most important reason for wandering to the top of the hill was the opportunity to admire the spectacular view. As Lindner wrote, you could see *not only the nearby Jelenia Góra with its beautiful houses and gardens, not only the nearby rivers and villages and the famous warm spring, not only the stunning old castles, but also the entire range of the magnificent Giant Mountains*[8].

Fig. 1. A fragment of Jelenia Góra's map with the park plan on the Hausberg hill, *Pharus-Plan und Führer durch Hirschberg in Schlesien*, Hirschberg and Schles., n.d.

For walkers, before the year 1797[9], a small wooden pub was initially created, where various drinks and coffee were served, while the Bóbr river, flowing at the foot of the hill with its Kamienna tributary, provided a possibility for bathing. It is shown on one of the old views of Hausberg dating back to 1750. For amateurs of other sports a bowling alley was constructed. In later years, when, at the end of the 18th century, two other walking areas were opened for the inhabitants of Jelenia Góra, (namely Kavalierberg and Helikon, which will be discussed later in this article), mainly the poorer groups of local people visited Hausberg[10]. However, this did not prevent the future president of the United States and then the minister in power (that is, the ambassador) of the United States in Prussia, John Quincy Adams, from visiting that place in 1800. He described the impressions from his visit in a letter to his brother as follows: *Between the town and the mountain of Helicon is a smaller hill, called the Hausberg, upon which many of the citizens have formed small shady bowers, and built little fireplaces; so that they can come in the afternoon on summer days, make themselves tea or coffee, and sit and enjoy the beauties of the season and of the country: we saw several of these family parties partaking these innocent and wholesome enjoyments*[11].

The simple building of the pub with time has begun to take on a more sophisticated shape, as shown on one of the drawings stored in the Jelenia Góra archive. It was probably a project for a new restaurant, which was erected in 1841–1842. We can see there a one-story pavilion in the neo-gothic style, with two rooms and a small service room. In 1866, a shed was added to this building, with a special room devoted to keeping ice used for storing food. Next to it there was also a terrace, from which there was a beautiful view of Jelenia Góra and the surrounding hills. Later, the building took on a more impressive, though quite peculiar form, especially if one considers the features of regional architecture and the competition organized in 1887 in Berlin, in which very interesting solutions were selected. They included – among other things – equipping the new restaurant with a lookout tower. A new arrangement of the surrounding area was also planned. Unfortunately, these projects have never been implemented. Instead, a three-story brick building was erected at the end of the 19th century. It was covered with a flat roof, badly fitting into the surroundings, had three floors and a wooden veranda. Inside, there were dining and billiard rooms and two guest rooms.

8 [Lindner K.G., 1742].

9 [Hensel J.D., 1797, p. 764].

10 [Hensel J.D., 1797, p. 764].

11 [Adams J.Q., 1804, p. 57; Łaborewicz, I., 1998, p. 31].

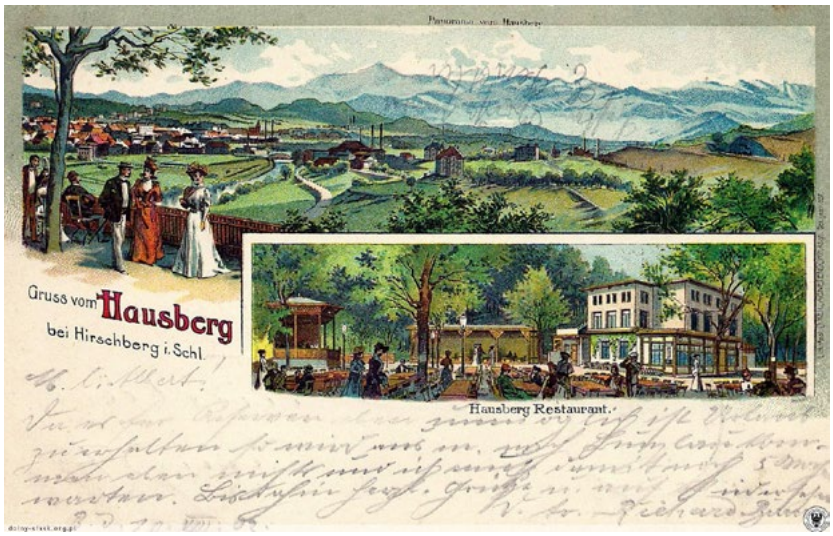

Fig. 2. The panorama of Jelenia Góra seen from the Hausberg hill; the restaurant visible below. Lithographic postcard, 1900–1902. Retrieved from https://polska-org.pl/774773,foto.html?idEntity=516012 [access date: 10.05.2018]

Fig. 3. A view of the Hausberg hill, postcard from about 1915. In the foreground Bóbr, further on the Kamienna river. On the hill there is the inn and on top – the Imperial Tower. Retrieved from https://polska-org.pl/632930,foto.html [access date: 9.06.1018]

During the construction of the new restaurant some corrections were also made to the development of the hill itself. There, in the 18th century, next to the naturally growing clumps of birchwood, new trees were planted. In their shade one could rest after climbing to the top[12]. More extensive works were carried out in the nineteenth century. Local authorities tried to give the hill more of a park character by introducing walking paths and by an appropriate formation of vegetation. A special parking space for vehicles was also prepared. At the same time, the hill was included into the collection of areas under the care of a special garden department appointed by the city council. The rocks located in the western part of the elevation were particularly appreciated as a viewing point. It is worth noting that almost all of the views of Jelenia Góra, starting from the oldest one from 1682, represent the city seen from this very place.

The last major investment before 1945 was the construction of a lookout tower in 1911. The idea of such a building had already appeared in 1891. Initially, it was planned to be located it in Kavalierberg (currently Kosciuszko Hill). However, Hausberg was finally chosen and the tower was opened on the 800th anniversary of the legendary date of the construction of the castle on the hill by Bolesław Krzywousty. The impressive building, 35 meters high, was called Imperial, which referred to the Emperor Wilhelm II.

12 [Hensel J.D., 1797, p. 764].

After 1945, the Hausberg hill was called Bolesław Krzywousty hill, and the tower – formerly the Imperial one – nowadays is usually called Grzybek (Little Mushroom), which refers to the characteristic shape of the helmet shielding the viewing terrace. The pub located on the hill was destroyed and dismantled, as well as the roofed terrace adjacent to it, where the guest tables were once set up. Today, it is hard to find the place where these buildings were built. Only a part of the retaining wall of the restaurant terrace has survived. The lookout tower, after a long period of neglect, when it lost some parts of the copper cover of the helmet, was carefully restored a few years ago. Corrections of excessively tall trees were also conducted, as their crowns made it practically impossible to admire the view from the top of the tower.

Helikon

The landscape values of Jelenia Góra described above, the living conditions in the walled city and changes in the relationship between man and nature were the reasons why the city's inhabitants, in the first half of the eighteenth century, drew their attention to the beauty of another hill located northwest of the city called Sättler (Saddle). The magnet for these trips was also the fame of the spring at the foot of the hill, called Mirakelbrunn or Merkelbrunn (Miracle), whose water was believed to possess unusual properties. Another attraction which led the local people to visit this area was a legend from which the place took its name. According to it, a long-time saddler used to live there. Apart from his legal occupation, he was also involved in the production of fake coins. The saddler was punished by being burned at the stake. From that time, his spirit was believed to appear on the hill. This story was quoted by the Jelenia Gora's teacher and poet Daniel Stoppe in the introduction to the collection of his literary works entitled *Der Parnas im Sättler* published in 1737[13]. The author gave an explanation for this intriguing title in the introduction to the work. He wrote that the hill was then a favourite place for walks of Jelenia Gora's inhabitants, who came there in small groups and had bonfires, where they cooked tea or coffee and smoked tobacco. Stoppe and his friends also used to go there. They even constructed a stone stove with a chimney for cooking coffee and two benches under a large rock. All this is shown in the drawing, which is a frontispiece of Stoppe's work. As it turned out, among the friends of the author this place also evoked more intellectually sophisticated feelings. For instance, one of them compared the hill to Parnassus and this name clung to it for the next years. It was confirmed in an article by Lindner (already mentioned many times in this article) who wrote in 1742: ... *the hill is called Saddler14, where not only the famous fairy tale or wonderful spring murmurs, but also Parnassus of Mr. Stoppe is getting more and more beautiful and laboriously built each year15*.

One of the people who frequently visited the place was also the mayor of Jelenia Góra, Johann Christoph Schönau. After completing the main works in Kavalierberg he decided to give a new character to a part of the Sättler hill. Developing connections with the mythology initiated by Stoppe, he decided to create there a place for muses – Helicon*16*. It should be noted here that the muses associated with Helicon were given a special position in Greek mythology. For example it can be seen in the fact that it was from their recall that Hesiod began his *Theogony17*, a work certainly known to Schönau:

13 [Stoppe D., 1735]. The reference to the muses from the Sattler hill also appears in the title of one of Stoppe's poems included in his work: Cantata oder Musicalischer Besuch welchen die so genannten Sattler-Musen bey seiner Wohledlen Herrn Gottlieb Geyern [...] abgelegten (p. 102–105). The title has the following explanation: Sattler is the name of a well-known forest in this area, which is often visited by Jelenia Góra muses. The Parnassus of Jelenia Góra is also recalled by the Swiss poet Samuel Henzi, critical of Stoppe's work, in the title of his work: [Henzi S., 1745].

14 The current name is Snare. The term Saddler is the result of an incorrect translation from German.

15 [Lindner K.G., 1742, p. 14].

16 The earliest known description of Helicon in Jelenia Góra is provided by [Zöllner Ch., 1793]. Two years later appeared the guidebook on the Sudety Foreland (Wegweiser durch das Riesengebirge), inserted in: "Berlinischer Almanach zum Vergnügung und zur Verbreitung nützlicher Kenntniße für 1796", Berlin 1795. There are pictures showing, among others, the bridge over Kamienna river, across which people used to go towards Helicon, and the kitchen at Merkelbrunn (Wonderful Spring). A detailed presentation of the entire area was placed in [Krahn I., 1796], [Weiss M.Ch., 1796], [Hensel J.D., 1797], [Assmann Ch.G., 1798] and an anonymously published small booklet entitled Beschreibung des Pflanzberges, Helikons und denen Elisäischen Feldern bei Hirschberg, Hirschberg 1802. Few years ago appeared the article on Helicon and Pflanzberg [Reelfs H., 2001]

17 Written by Hesiod, probably in the 7th century BC, Theogonia raises the topic of the origin of the world and describes the successive generations of deities and their connections with nature and man, which are also manifested in the divine origin of rulers' families. Retrieved from https://pl.wikipedia.org/wiki/Theogonia [access date: 02/06/2018]

From the Heliconian Muses let us begin to sing, who hold the great and holy mount of Helicon, and dance on soft feet about the deep-blue spring and the altar of the almighty son of Cronos, and, when they have washed their tender bodies in Permessus or in the Horse's Spring or Olmeius, make their fair, lovely dances upon highest Helicon and move with vigorous feet[18].

Schönau's concept has only slightly interfered with the natural character of this place. In the beginning, the mayor in 1787 ordered to lead the path to the spruce grove growing there. In the following year, he asked the magistrate for a permission to fill the empty, barren and undeveloped places of this hill with new trees (at his own expense). Thanks to his initiative, a place for the amphitheatre was also prepared. It is not known what it looked like or whether it was realized at all. If it was created, probably (just like in the arrangements of other places on the hill) it was made of simple turf benches.

Before Schönau's activities the area did not have a separate name. Now, on one of the hills, which was fenced and planted with carefully selected greenery, a composition was created. It was called the Grove of the Muses or the Pantheon. Then, the name Helicon became popular and over time it began to refer to the whole area.

The associations of Jelenia Góra area with the ancient Helicon were seen in the analogies between the topography of the Jelenia Góra hill and the mountain located on the Corinthian Gulf in Boeotia. Thus, the Wonderful Spring was now called Aganippe, and the former stream of Becker became the Greek Hippokrene (meaning Horse's Fount of Hesiod)[19]. Also, Jelenia Góra was supposed to be the equivalent of the city of Thesbia located at the foot of Helicon. Hensel, the author of the description of the Jelenia Góra's Muses' headquarters, doubted even whether the view from the Greek Helicon is as beautiful as the one that can be seen from the Jelenia Góra hill[20].

Fig. 4. Sättler Hill, gouache of C. Thümer, 1794. Collections of the Jelenia Góra Museum AH 4287

The path laid out by Schönau led across the bridge over the Kamienna river[21] and further to various picnic places, arranged by several local families. Those places, shaded with firs and beeches growing around them, were equipped with tables and wooden and turf benches surrounding places for fires. From there, a path led to the proper Helicon, where – as Hensel wrote – the M.M. initials were placed on the seats. The initials referred to Mater Musarum (mother of muses) – Mnemosyne. Other places dedicated to individual nymphs were indicated

18 English translation by Hugh G. Evelyn-White. Theogony. Cambridge, MA., Harvard University Press; London 1914. Retrieved from http://www.sacred-texts.com/cla/hesiod/theogony htm [access date: 02.06.2018]

19 Both Aganippe and Hippokrene are two springs from Greek Helicon.

20 [Hensel J.D., 1797, p. 759].

21 The view of this bridge is an illustration of the article in Berlinischer Almanach..., table III.

by wooden signs with appropriate sentences taken from ancient poetic works[22]. The verses referring to Clio, Euterpe, Melpomene, Polyhymnia and Urania were from the *XX edylla* by Ausonius[23] and from *Georgics* by Virgil. In addition, quotes from Horace and Ovid were used there. And so, the place located near the headquarters of Mnemosyne was dedicated to Clio, the muse of history. It was marked by a sign attached to the spruce with the following inscription: *Clio gesta canens transactis tempora reddit24 (Clio, singing of famous deeds, restores times past to the life)*. Next to the road leading to the Euterpe headquarters there was a line from one of the *Georgics* by Virgil: *Iuvat ire jugis, qua nulla priorum Castaliam molli divertitur orbit clivo*) (*Pleased I am to range the mountain-tops, where no path trodden by the ancients winds down with gentle declination to Castalia*) *25*. The site of Euterpe, the muse of lyrical poetry and light bacchanalian music, was marked by the inscription (from Ausonius): *Dulciloquos calamos Euterpe flatibus urget (Euterpe's breath fills the sweet-voiced flutes)*[26].

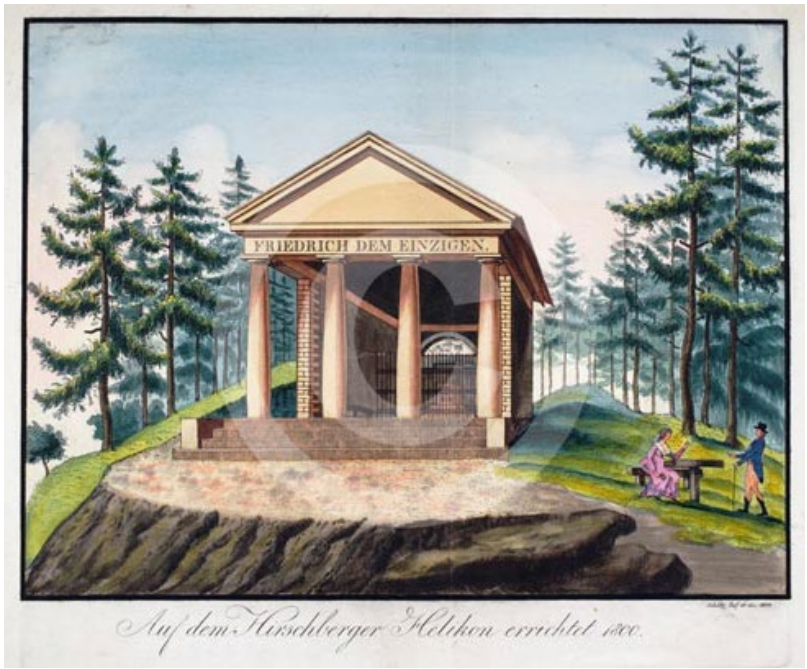

Fig. 5. Jelenia Góra, Saddle (mountain), a temple on the Helikon Hill, picture by Scholtz, 1804. Herder Institut, inv. no. P 3612

Further on the Bobr river there was a rock known as Gibraltar, whose name was criticized by Hensel for being unpoetic[27]. A circular square devoted to Terpsichore was located south-west of it. In the middle of the square there was a wooden platform, which was surrounded by nine grassy seats designed for the Muses. There was also a plaque with the inscription: *Terpsichore invitat, duc laeta puella choraes (Terpsichore invites, a happy girl leads the crowd*).

The nearby square was devoted to Thalia, with the inscription taken from the second verse of *VI Bucolics* by Virgil: *Nostra nec erebuit sylvas habitare Thalia* (*My Thalia nor blushed to be inhabitant of the woods*)[28].

22 The information about statues allegedly standing here is false; it is erroneously given, for example, by the portal https://polska-org.pl/519844,Jelenia_Gora,Helikon.html [access date:10.09.2018].]. Immanuel Krahn writes about the lack of this type of decoration in the introduction to his publication. [Krahn I., 1742]

23 Decimus Ausonius Magnus (about 310–393) – an ancient Gallic poet and rhetorician.

24 This and the following Latin verses (except for the fragments from the works of Virgil and Ovid come from the work of [Ausanias, 1985, p. 281].

25 [Virgil, 1821, p. 132]

26 [Ausonius, 1985, p. 281]

27 Further, on the top of the rock, there is a place quite unethically and uncritically called Gibraltar, for the rock is slightly beyond the slope of the mountain, and the Bobr River is visible on both sides, as if from the peninsula. However, this name is more and more forgotten. [Hensel, J.D., p. 747]. A similar, critical opinion about the impropriety of naming Gibraltar the rock on the Hill of the Muses was expressed by [Adams J.Q., 1804, p.53].

28 [Virgil, 1821, p. 27]

From the stone bench which was placed there, with stone tables on both sides, there was a beautiful view of the countryside.

The next place was devoted to Melpomene, which was evident from the inscription taken from the above mentioned Ausonius: Melpomene tragico proclamat moesta boatu (Melpomene cries aloud with the echoing voices of gloomy tragedy)[29]. Farther along, after climbing the natural stone steps, one could access Polyhymnia Square. It was marked with the inscription (again taken from Ausonius): Signat cuncta manu, loquitur Polyhimnia gestu (Polyhymnia expresses all things with her hands and speaks by gesture)[30]. Nearby, there was a small bower with a table and a bench for two people, under the patronage of Erato, with the verse from Book II Ars Amatoria by Ovid: Salve! Erato, dulcis nomen amoris habes (And thee too, Erato, I invoke, for 'tis, from Love thou dost derive thy name)[31].

There was also a place for the guide of the Muses – Apollo. In one of the copses a tripod was installed with the inscription Ligneum pro tempore te facimus / Si tempora juvant, aureus esto[32] (We made you for this time from wood / When times change, you will be gold). However, as Hensel commented, the god guarding this place proved to be ineffective, because the tripod and the plaque were stolen. In 1797, a new investment was started there, namely the construction of a temple with a form referring to an ancient building with a four-column Doric portico[33]. It was the only permanent architectural element that was created in Helicon. Founded by Senator Geier, the building was erected to commemorate Frederick II. On the frontispiece there was an inscription: FRIEDRICH DEM EINZIGEN (To Frederic the One and Only), and inside the temple, by the back wall, on a three-level elevation, a block of Egyptian marble was placed. It was a sacrificial altar. Above it, there was the inscription DANK SEI IHM (Let him be thanks) and an extract from the hymn written by the Rector G.N. Fischer from Halberstadt[34].

It is also known that Schönau's intention was to extend Helicon to include a place defined by him as the Elysian Fields. According to the book by Immanuel Krahn, published in 1796, entitled Vom Helikon und Elisäischen Felder bei Hirschberg, this place was to be located in the part of Sättler hill stretching along the Bóbr River. This publication's individual parts referred to the text of the 6th book of Aeneid by Virgil. It describes the journey of Aeneas, in the company of Sybille, into the afterlife in search of his father. The parts of Aeneas' journey were to refer to the paths that ran through the forest, rocky meadows and open spaces. The only more significant motif was the rock that symbolized Cerberus. The text was completed with numerous Latin quotes from Virgil's work. It seems that perhaps the author of the book was Schönau himself, who, during the seven-year war, while he was in Austrian captivity, devoted himself to studying ancient works[35].

Referring mainly to associations requiring classical education, the concept did not take the form of a distinctive shape, and Hensel, the author of the chronicles of Jelenia Góra, wrote that although this area was called the Elysian Fields, not much was actually created here[36].

Schönau's simple arrangement of Helicon did not stand the test of time, and a year after his death almost everything was destroyed, partly due to the natural impermanence of wooden signs and grassy seats, partly as a result of ordinary vandalism[37]. In the later descriptions of Helicon only the most significant elements of the

29 [Ausonius, 1985, p. 281]

30 [Ausonius, 1985, p. 281]

31 [Ovid, 2005, p. 123]

32 This is a paraphrase of the couplet Nunc te marmoreum pro tempore fecimus; at tu/Si fetura gregem suppleverit, aureus esto from the work of Virgil [Virgil, 1821, p. 34].

33 G. Grundmann published in 1941 an article on the temple and posted two archival design drawings of the building. [Grundmann G., 1969]. H. Reelfs in her article noticed influence of masonic connotations in the temple. [Reelfs H., 2001].

34 Friedrichs des Einzigen Denkmal auf dem Hirschberger Helikon, "Schlesische Provinzial Blätter", 1800. In 1840 the widow of the founder donated the temple to the city. [Vogt M., 1875. p. 565].

J.Q. Adams wrote in one of his letters about the temple: A merchant from this city, with more money than taste, built a different stone temple dedicated to Frideric near the Temple of Apollo. [Adams J.Q., 1804, p. 54].

The Temple of Apollo was also mentioned in an article from 1805 [n.a., 1805, p. 33] and the demolition of its remains, around 1877, was mentioned by [Fiek E., 1887, p. 12].

35 [Donat T., 1882, p. 3].

36 [Hensel J. D., 1797, p. 759].

37 Minister von Hoym was to issue a regulation to re-arrange the Helikon area, but it is not known whether this decision was implemented. The town authorities only renovated the temple in 1840, which was not in good condition when it was handed over to the city by the councilman Geier widow. [n.a., 1805, p. 33]

area are mentioned, such as the temple and the rock of Gibraltar. The names of routes running around the hill, used during Schönau's days – referred to as paths of Nymphs and Poets – were also still used. From the old places dedicated to particular muses only one was still remembered. It was the one dedicated to Urania, which was located at the highest point of the hill. The original state of Helicon has been so much forgotten, that in the later descriptions it was even said, contrary to the truth, that there were also statues there[38]. Still, until the end of the 1930s,travel guides mentioned Helicon as the destination of trips in the vicinity of Jelenia Góra[39].

After World War II, the temple dedicated to King Frederic II was demolished and its location can be found only thanks to the characteristic rock on which it was constructed, and the rubble of bricks and lumps of mortar covered with the grass and bushes. Almost no trace was left of the Muses' place. Although the course of the old paths can be found due to the fragmentary tree rows, it is quite a challenge to try to locate the places dedicated to particular muses, currently hidden in the thicket of trees and shrubs[40]. However, it should be added that in the area of the former Helicon works have recently been undertaken to clear it, including setting information boards and improving the condition of pedestrian routes.

Fig. 6. Apollo playing on a lyre in a mountainous environment. In: "Berlinischer Almanach zum Vergnügung und zur Verbreitung nützlicher Kenntniße für 1796", Berlin 1795, front page

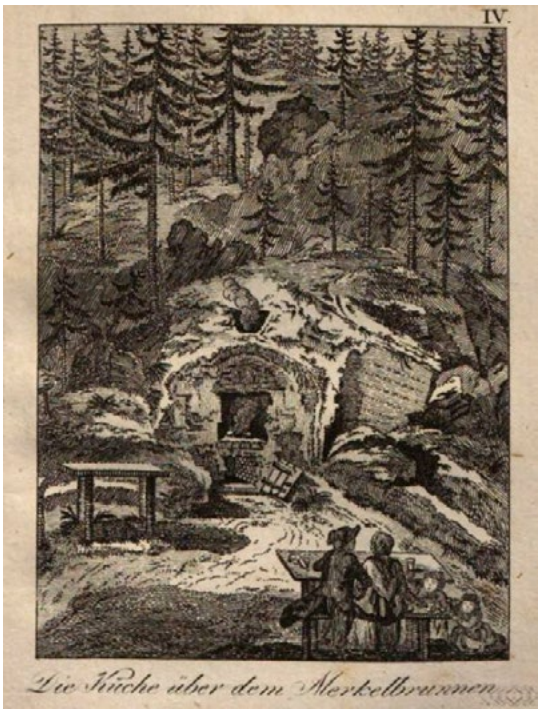

Fig. 7. Kitchen near Merkelbrunn (Wonderful Source) on the Sattler Hill. In: "Berlinischer Almanach zum Vergnügung und zur Verbreitung nützlicher Kenntniße für 1796", Berlin 1795, after p. 38.

38 [Vogt M., 1875, p. 265].

39 [Fiek E., 1893]; [n.a., 1921].

40 An attempt to determine the location of these places is taken by a Jelenia Gora researcher, Eugeniusz Gronostaj, but how difficult this task is, leading to very inconsistent findings, is proved by the comparison of different results contained in the paper by Eugeniusz Gronostaj, Local tourism in getting to know the history of Jelenia Góra and interesting places in the Landscape Park of Bóbr Valley, which was announced in 2014 and in the subsequent publication 3 years later. Compare: https://turystyka.jeleniagora.pl/sites/default/files/Kultura/turystyka/seminarium_turystyczne_DZPK.pdf) and [Gronostaj E., Łętkowska A., 2017, il. 5], also http://wpt.kpswjg.pl/public/ckfinder/userfiles/files/borowy_jar_walory_15_09_17.pdf) [access date: 2.09.2018]

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Najwcześniejsze publiczne założenia zieleni związane z Jelenią Górą, cz. 2.

Streszczenie: W trzeciej tercji XVIII w. zaczęły powstawać na ówczesnych terenach podmiejskich Jeleniej Góry, najwcześniejsze na terenie Śląska publiczne założenia krajobrazowe przeznaczone dla wszystkich mieszkańców. Przy ich aranżowaniu wykorzystano naturalne walory krajobrazowe okolicy (Karkonosze). Dwa z nich Hausberg i Helikon powstały pod koniec XVII w. po północno – zachodniej stronie miasta.

Słowa kluczowe: ogrody krajobrazowe, ogrody publiczne, Śląsk

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The Wrocław urban planning from general plans to studies on land use planning

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Abstract: The purpose of this paper is to diagnose the degree of change of selected elements of functional and spatial structure of Wrocław. This is a review of the Wrocław urban planning at the turn of the 20th and 21st century. The plans of transport system, the issues of natural environment, recreation and leisure and the proposed arrangements and systems of services provided to residents were analysed. These elements were compared with national legislative processes and general tendencies in urban planning.

Keywords: planning documents, history of spatial planning, spatial policy, Wrocław

Introduction

The theory and practice of spatial planning in Poland at the turn of the 20th and 21st century have evolved along with numerous legislative changes affecting the way of perceiving and implementing spatial policy, both in the aspect of processes governing spatial development and in social terms. The normalization of socio-economic mechanisms in geographical space is considered to be the basic element of shaping spatial policy, while political and economic situation was, and still is, reflected in how the rules behind the planning and building development are adapted to the existing systemic conditions. Moreover, the process of legislative changes in Poland, at that time, was accompanied by the process of political and economic transformation of the country towards political pluralism and economic freedom.

The purpose of this paper is to diagnose the phenomenon of changes in the Wrocław urban planning from the end of the 20th century to the present at the background of settlement processes initiated in the first half of the 20th century. The analysis is based on guidelines from planning documents, in particular local spatial development plans adopted at the end of the 20th century and studies on land use planning adopted after 1994. Reference was made to the principles of shaping spatial policy contained in laws directly related to planning and spatial development, and in force during the research period. Particular emphasis was put on the analysis of the dynamics of changes in three main elements of functional and spatial structure related to the shaping of spatial policy of Wrocław in planning documents, i.e.:

- transport system and mobility policy,
- the natural environment, recreation and leisure,
- hierarchical arrangement of service centres and service systems.

The purpose of the above analysis is to establish the degree of continuity of settlement processes in local dimension and to assess the validity and effectiveness of legislative changes related to urban planning and spatial planning at the national level.

Historical conditions

Rapid twentieth-century industrialisation contributed to a significant increase in the number of city dwellers in the world. Wrocław was not much different[1]: modernist architecture and major architectural designs, including the Centennial Hall built in 1913, began to flourish in the city. One factor played a key role in planning the spatial development of Wrocław, namely a town-planning competition for the city development that took place in the years 1921–1922. The purpose of the competition was to try to organize the settlement zone within the city and to establish a spatial development framework. The author of the winning project, a German architect and town planner Ernst May acting in cooperation with Herbert Boehm, assumed a strategic approach to shaping downtown Wrocław (i.e. the central part or main business and commercial area of the city) and the space around it. According to the project called *Trabanten* ("satellites" in German), the city was to be decentralized, meaning that the urbanized central city zone would be surrounded by self-sufficient satellite housing estates. Such housing estates would have good communications and the boundaries between them would be fixed along urban greenery. Furthermore, spatial programme with clearly specified demographic capacity were also provided (see: Figure 1). May's concept was pioneering as at the beginning of the 20th century; it was re-framed in later years covering a larger territory allowing Wrocław to develop [Kononowicz 2010].

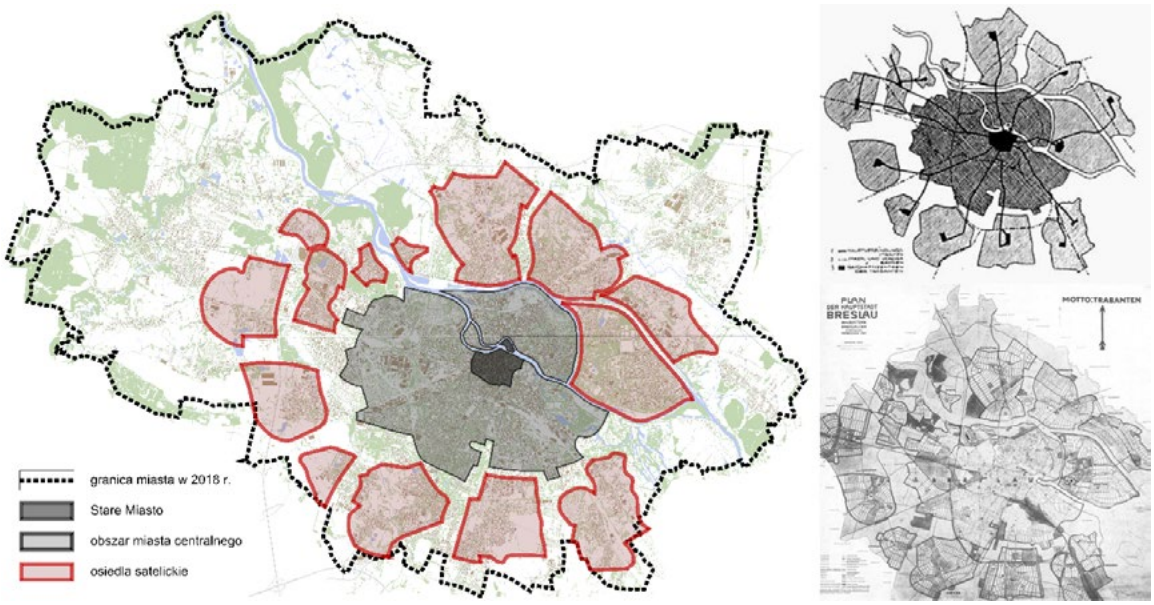

Fig. 1. The concept of satellite settlements around the central area of Wrocław – based on www.kompozytorzy-przestrzeni.blogspot.com

Koncepcja osiedli satelickich wokół obszaru centralnego Wrocławia – opracowanie własne na podstawie www.kompozytorzy-przestrzeni.blogspot.com

Setting clear framework for spatial development of Wrocław based on settlements satellite towards the central zone could have a considerable impact on current functional and spatial structure of the city. Nevertheless, Ernst May's design was not executed, and the city urbanization was closely correlated with transport system and urban green space. At that time, public transport also developed. In the years 1925–1929, the company known as Wrocławskie Tramwaje Miejskie *(Städtische Straßenbahn Breslau* in German) extended the tramway system and purchased approx. 230 modern – at that time – cars, designed for the needs of Wrocław [Kołodziejczyk 2016]. Spatial development of the city is illustrated by a remarkable plan of Wrocław from 1934 (*Plan der Haupstadt Breslau* in German) that showed road corridors, railway network, basic elements of natural environment and the expansion of buildings in the capital of Lower Silesia at the beginning of the 20th century.

1 At that time, Wrocław (Breslau in German) was in Prussia, later Third Reich. After WWII, Breslau was assigned to Poland.

The plan also showed buffer strips successively planted alongside five rivers running within administrative boundaries of the city, including elements of greenery (partly in the form of cemeteries and recreation areas) in the vicinity of today's ul. Ślężna and other forms of urban green space within the so-called Krzycka Promenade[2] along the railway embankment in the south of Wrocław (Figure 2).

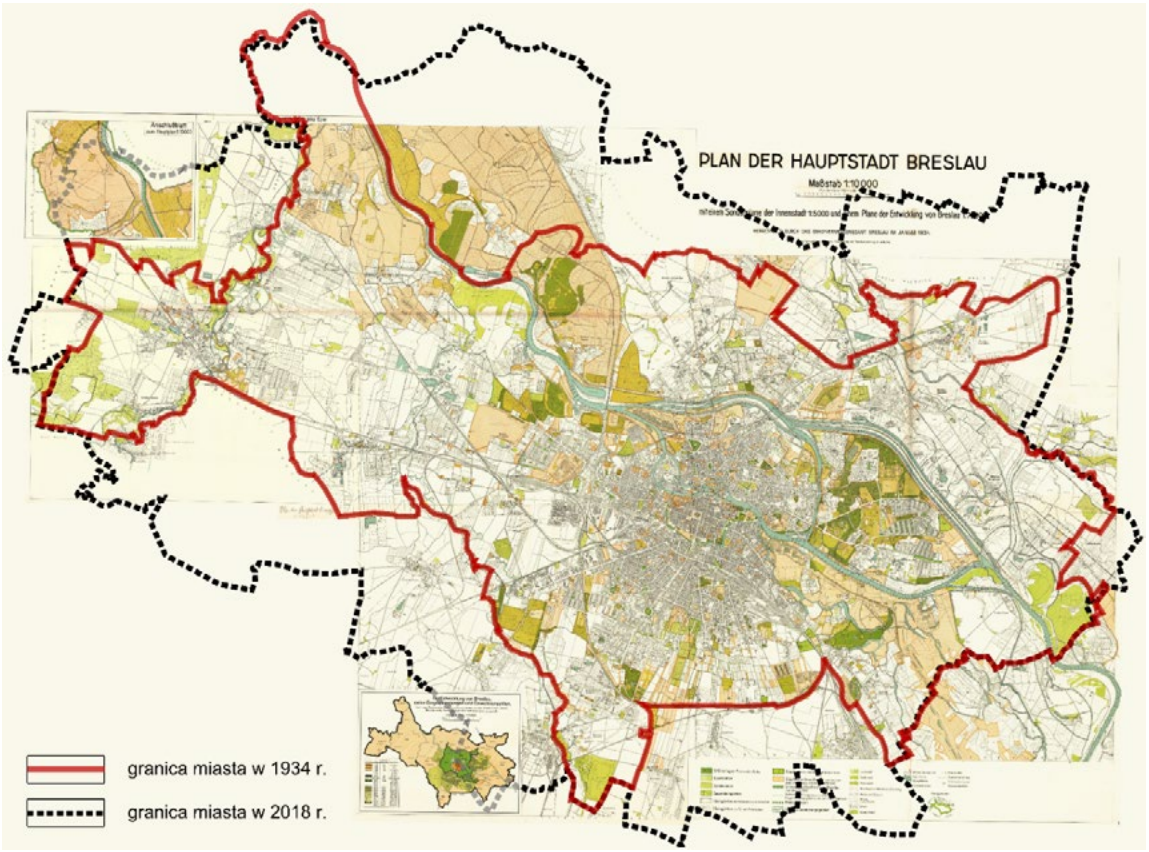

Fig. 2. Borders of Wrocław in 1934 (red line) and in 2018 (black dots) based on the city plan from 1934
Granice Wrocławia w 1934 r. i 2018 r. – opracowanie własne na podstawie planu miasta z 1934 r.

1945/1960

Wrocław, the Third Reich city during the Second World War, suffered substantial war damage. The buildings and transport system were destroyed in about 70% during the city siege, which was an important planning and sanitary problem as the Poles, flocking to Wrocław, could live in only 30% of the remaining and usable houses (Fig. 3).

The city planners and authorities at that time had to decide whether to rebuild the structure of Wrocław from 1939 or transform it into much needed residential areas. An answer to the above-mentioned issues was to be found in the Initial Concept of Wrocław Development from 1946, developed in the newly-created unit, namely the Wrocław Plan Bureau (Biuro Planu Wrocławia), which reported to the Regional Directorate of Spatial Planning. It was finally decided to keep the identity of the existing space and building substance and introduce some necessary changes to allow Wrocław to further develop and retain historical continuity. The need to create a radial-perimeter transport system and the extension of the radial-ring urban green space were indicated [Przyłęcka 2006]. An additional background to the development of the then planning studies was the Decree

2 Also known as the Hugo Richter Route / Hugo Richter Wega Route.

of April 2, 1946 on planned spatial development of the country, where it was stated (Article 1) that *all public and private actions involving the use of land and population distribution should be adapted to the provisions of spatial development plans*, which were divided into national, regional and local levels.

Fig. 3. Change in the image of the southern part of Wrocław in 1900 (A) and 2018 (B), and high-rise building in a place of tenement houses – based on fotopolska.eu (A) and the author's own photograph (B)

Zmiana wizerunku południowej części Wrocławia w latach 1900 (A) i 2018 (B), budynek wysokościowy w miejscu zabudowy kamienicowej – opracowanie własne na podstawie (A) – fotopolska.eu (B) – fotografia autora.

The Initial Concept of Wrocław Development was further elaborated as the General Zoning Plan of Wrocław, first developed in1946 under the direction of Tadeusz Ptaszycki, and approved in 1949. The draft plan assumed the possibility of spatial expansion around the historical centre of Wrocław in order to reduce the number of people per building in Downtown. A radial-perimeter transport system was introduced and buffer strips were arranged to improve the quality of climate, including those alongside the banks of the Oder, Bystrzyca and Ślęza Rivers (Figure 4).

The General Zoning Plan of Wrocław was developed along with functional and spatial layout of the city connected with the Exhibition of the Recovered Territories organized in 1948. To this end, the City Activation Plan ("Plan Aktywizacji Miasta") was drawn up, pointing to the perimeter building development around selected communications routes and urban green space to be restored. The buildings mention therein were cleared of rubble and secured, the façades were renovated, and new green spaces were created [Przyłęcka 2006]. Both plans, i.e. the General Zoning Plan of Wrocław and the City Activation Plan, resulted in a development of a central hierarchical layout with a dominant historical centre (the Old Town) and a supporting specialist centre in the east of the city as part of areas intended for the Exhibition of the Recovered Territories and the vicinity of the Grunwaldzki Square.

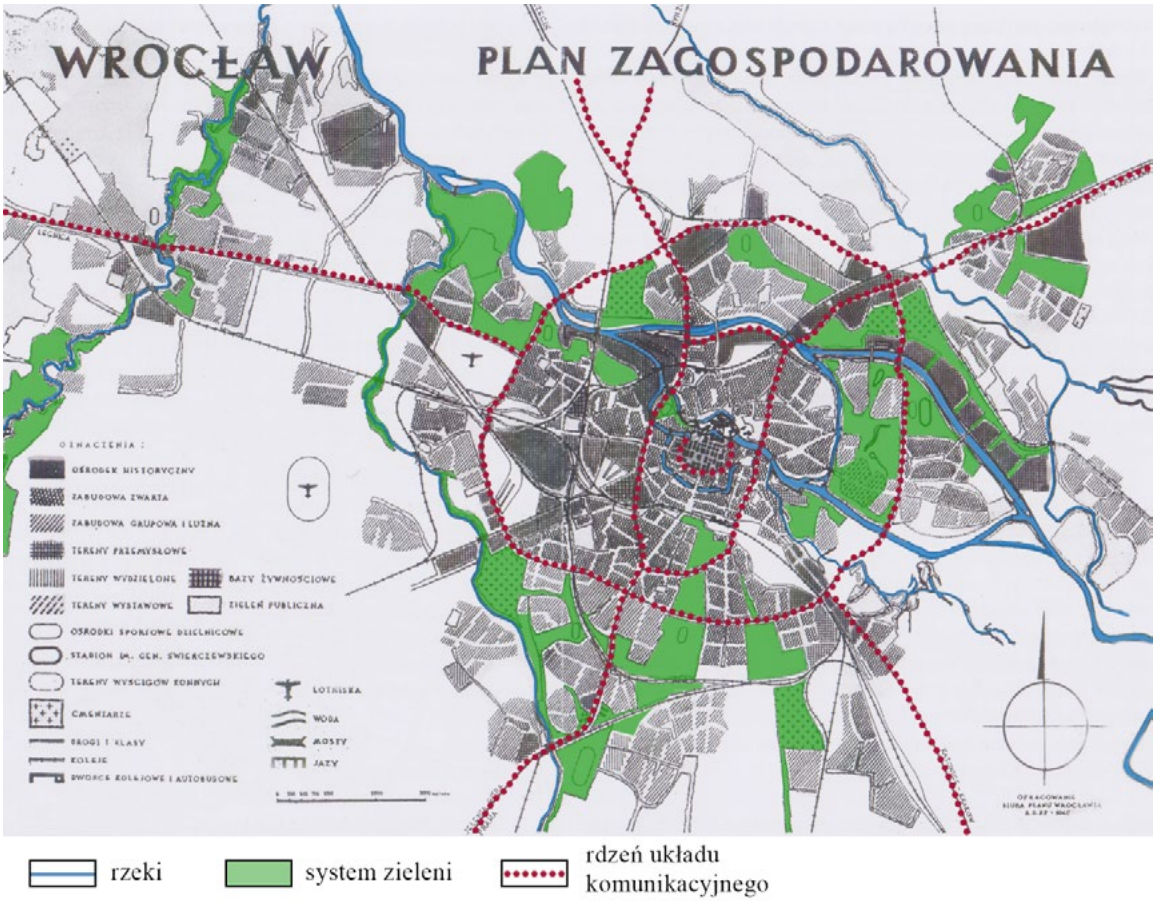

Fig. 4. The General Zoning Plan of Wrocław from 1949; see: Przyłęcka D., 2006, Odbudowa i rozwój Wrocławia w planach zagospodarowania przestrzennego z lat 1945–1994, Agencja Wydawniczo-Poligraficzna RUBIKON, Wrocław.

Generalny Plan Zagospodarowania Wrocławia z 1949 r. – opracowanie własne na podstawie Generalnego Planu Zagospodarowania Wrocławia [w:] Przyłęcka D., 2006, Odbudowa i rozwój Wrocławia w planach zagospodarowania przestrzennego z lat 1945–1994, Agencja Wydawniczo-Poligraficzna RUBIKON, Wrocław.

Later, the central planning trend growing in the country changed local organizational structures in Wrocław. The Wrocław Plan Bureau was closed in favour of the "Cityproject" ("Miastoprojekt" in Polish) established in 1952, which dealt with planning and spatial development issues. The"Cityproject" continued previous planning projects, and as a result, the concept of the Wroclaw development plan for 1970 was framed. The concept was based on the idea of peripheral transport system and other routes forming the city transport core with minor modifications regarding transport corridor towards Poznań. In addition, from the late 1940s the tram network was gradually expanded; however, investment plans related to public transport system were not an integral part of spatial development plans, although they were taken into account at the design stages.

The process of centralization in Poland contributed to the formation of a central Committee for Urban Planning and Architecture ("Komitet ds. Urbanistyki i Architektury" in Polish), and the Architectural and Building Board ("Zarząd Architektoniczno-Budowlany in Wrocław") led by Leszek Dąbrowski as the Main Architect of Wrocław. In 1955, the Town Planning Office ("Miejska Pracownia Urbanistyczna" in Polish) was opened under the direction of Alojzy Kulicz and Zbigniew Bodak as deputy. The General Zoning Plan of Wrocław was prepared in the City Urban Planning Office (Figure 5), which was the first such plan in Poland to be approved by central authorities. It consisted of two complementary studies: the Plan for the City Future Development until 1975 and the Staged Plan for the years 1956–1960.

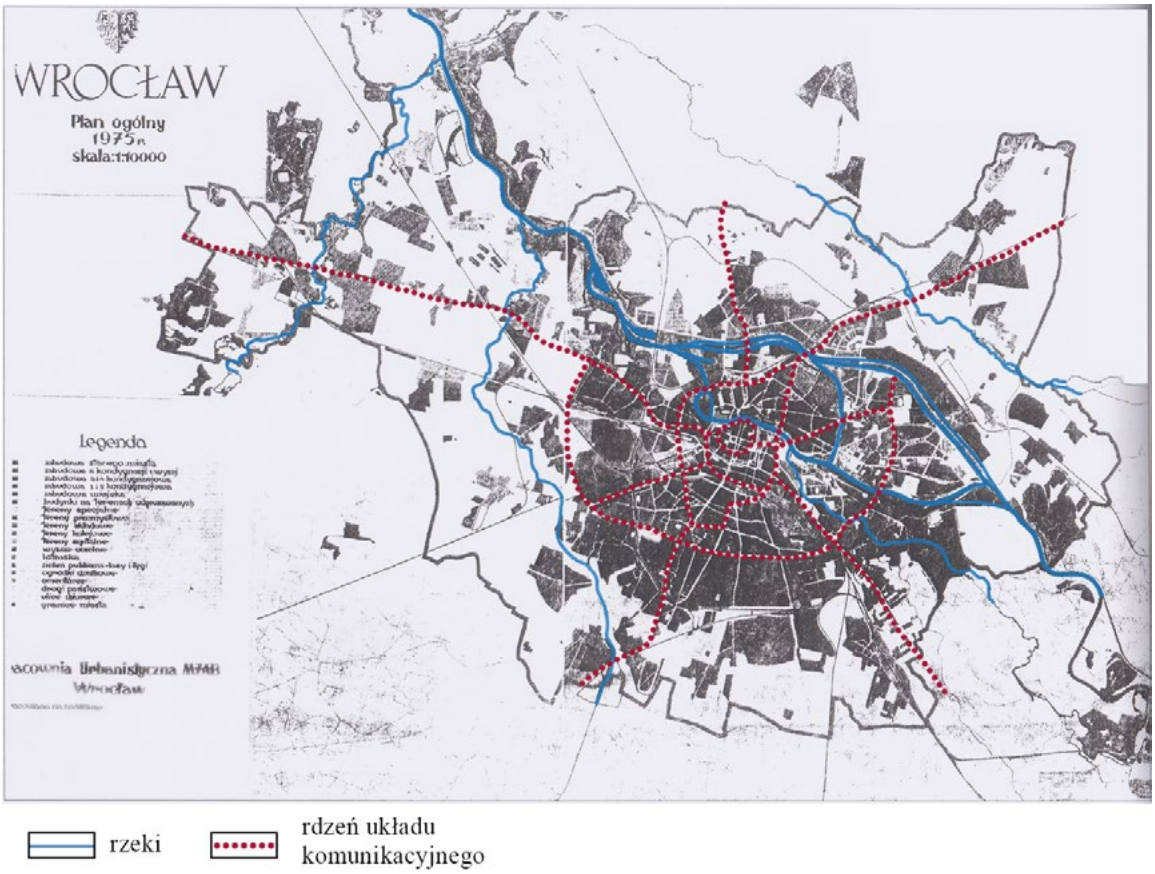

Fig. 5. General Zoning Plan of Wrocław. Perspective to 1975. Perspective to 1975. See: Przyłęcka D., 2006, Odbudowa i rozwój Wrocławia w planach zagospodarowania przestrzennego z lat 1945–1994, Agencja Wydawniczo-Poligraficzna RUBIKON, Wrocław.

Plan ogólny Wrocławia. Perspektywa do 1975 r. – opracowanie własne na podstawie Planu ogólnego Wrocławia. Perspektywa do 1975. [w:] Przyłęcka D., 2006, Odbudowa i rozwój Wrocławia w planach zagospodarowania przestrzennego z lat 1945–1994, Agencja Wydawniczo-Poligraficzna RUBIKON, Wrocław.

The General Zoning Plan of Wrocław with the perspective to1975 limited transport development, and the principles of mobility policy applied in particular to the modernization of current communications routes. The need to build transport system in radial-peripheral shape was still pointed out, but in a slightly different territorial arrangement compared to previous planning studies. Contrary to previous plans, the Downtown Ring Road of Wrocław was not closed. What was, however, similar to former concepts, was the reference to a homogeneous hierarchical layout based on a centrally located Old Town of Wrocław surrounded by urban areas. According to a later update (of 1958) of the General Plan with the perspective to 1980, the city was divided into service centres at basic, community and district level; additionally, a service central site (to be extended to the areas of the Southern Centre and the so-called Kościuszko Residential District) was defined. It was the first clear division of the city into hierarchical centres competent to provide various services to residents. In addition, due to the introduction of the national plan of trunk roads and motorways, the draft plan contained a more detailed range of national main roads as well as regional and local roads.

1961–1993

At the beginning of 1961 legislative changes in spatial planning were introduced because on January 31 of that year, the Spatial Planning Act came into force. Pursuant to Article 1 of this Act, the purpose of spatial planning

is to (i) ensure proper development of individual areas of the country, including their mutual connections and national interests, and (ii) establish correct spatial correlations between production and service facilities in these areas, thus creating conditions for production development, fulfilment of population needs and protection of natural resources and natural environment. Since the mid-1950s and early 1960s Poland began to move away from socialist realism, and therefore more freedom and modernity aspirations were allowed (but not on such a large scale as in western Europe, behind the Iron Curtain). This shift also meant the necessity to reserve land for industrial development, which was in line with the Spatial Planning Act. At the local level, the Act allowed local spatial development plans to be implemented in the form of general plans and detailed plans, but no clear instructions on the scope of local plans were given. In the end, such competence was laid on the Chairman of the Committee for Building, Urban Planning and Architecture in agreement with the Chairman of the Committee for Planning operating by the Council of Ministers (Article 28).

After the Act came into force, it was decided that the General Zoning Plan of Wrocław would be periodically updated, but first an initial concept of the city transport system was developed. It was later incorporated into the perspective draft plan to1980 but ultimately it was not adopted. It was recommended to conduct additional studies on functional and spatial structure of the city, which resulted in the adoption of the plan in the later period with the perspective to 1985, herein later referred to [Medeksza 2013].

In the meantime, attempts were also made to re-analyse the possibilities of spatial development of Wrocław, which could form the basis for further planning documents. To this end, Włodzimierz Szostek and Barbara Strzelichowska performed an analysis of Wroclaw development potential, including alternative development concepts. The city already had the General Zoning Plan with its updates providing general principles of spatial policy. Therefore, the Town Planning Office formed District Teams for Town Planning responsible for drawing up more detailed plans. The District Teams for Town Planning prepared many detailed plans for various areas of the city – dedicated to the restoration of downtown buildings and to new projects aimed at developing districts in Wrocław [Przyłęcka 2006].

On the one hand, the search for detailed spatial solutions in different districts of Wrocław resulted in town planners' greater awareness of individual districts, and on the other hand it made the development of the general plan with a perspective to 1985 easier. In the end, the plan was formulated under the direction of Kazimierz Bieńkowski (Figure 6), who worked on it since 1973.

The plan defined the transport system. According to the ideas adopted in the late 1940s, the radial-perimeter shape was made more precise. The Wrocław Downtown Ring Road was not closed from the north, but a longitudinal road was planned in the west of the city; its substantial part coincides with the route of today's Wrocław Motorway Ring Road. The plan also provided for current A4 motorway route in the south and transport system expansion by an additional road in the west, parallel to previously planned road towards Legnica. It should be pointed out that previous general assumptions became an integral part of the draft plan, and the transport structure layout was clarified. As for transport and functional and spatial structure, the plan assumed the closing of the airport in Gądów, which would release lands assigned for residential development with higher parameters of building height. Such a solution was favoured by additional, latitudinal street in the west.

In the General Zoning Plan of Wrocław with the perspective to 1985, an emphasis was put on systemic development of urban green spaces. The idea of 1949 was continued and developed. A buffer strip in the south was approved, others (a buffer strip in the east of the city and areas alongside the banks of the Oder, Bystrzyca, Ślęza and Widawa River) were enlarged; the Oder Islands ("Wyspy Odrzańskie") were still supposed to be "green lungs" for highly urbanized city centre, and buffer strips alongside the Oder River were widened for areas of building development potential in the west of the city, thus creating the Western Park ("Park Zachodni").

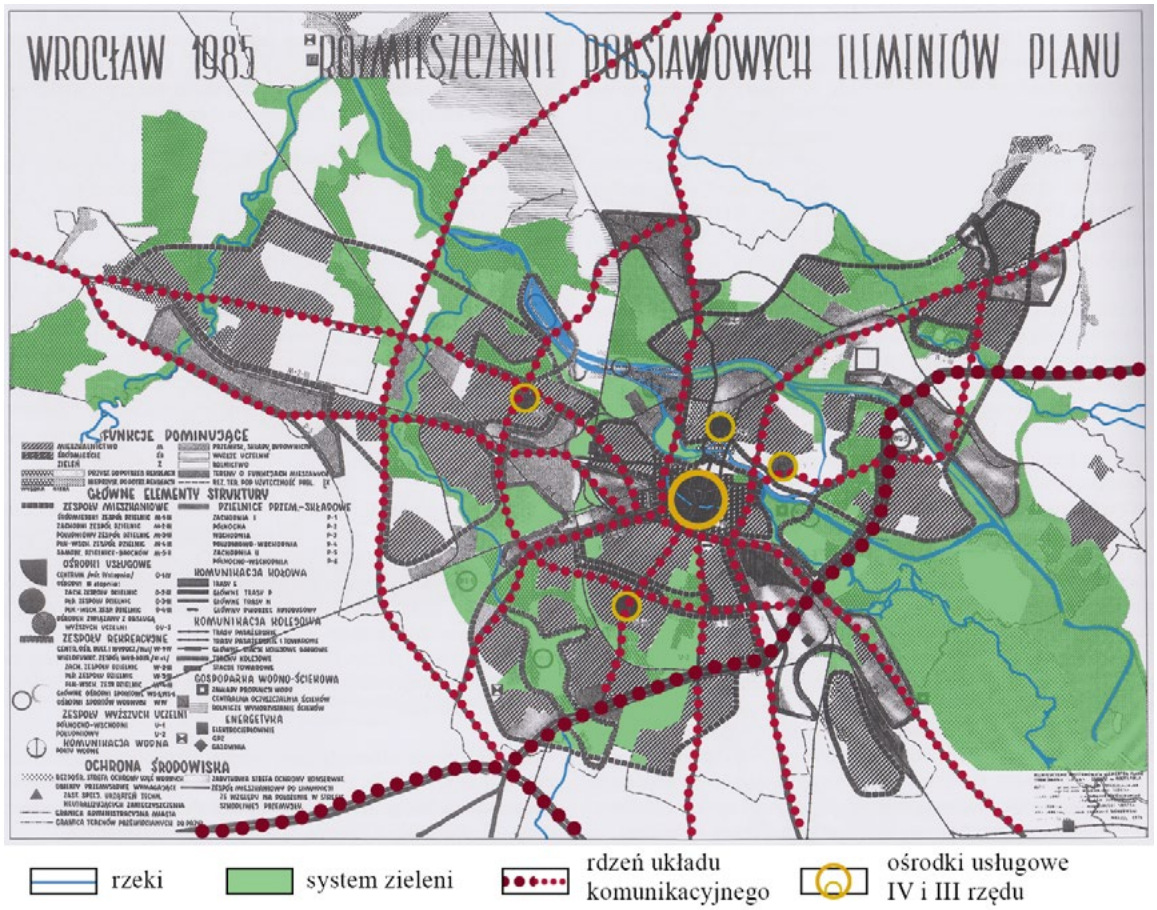

Fig. 6. General Zoning Plan of Wrocław. Perspective to 1985. See: Przyłęcka D., 2006, Odbudowa i rozwój Wrocławia w planach zagospodarowania przestrzennego z lat 1945–1994, Agencja Wydawniczo-Poligraficzna RUBIKON, Wrocław.

Plan Ogólny Zagospodarowania Przestrzennego Wrocławia z perspektywą do 1985 r. – opracowanie własne na podstawie Planu Ogólnego Zagospodarowania Przestrzennego Wrocławia z perspektywą do 1985 r. [w:] Przyłęcka D., 2006, Odbudowa i rozwój Wrocławia w planach zagospodarowania przestrzennego z lat 1945–1994, Agencja Wydawniczo-Poligraficzna RUBIKON, Wrocław.

The above elements of spatial development were to favour the 4-rank layout of service centres. The most important of them – in line with previous studies – was the central site in the place of the Old Town along with four third-rank district centres in the vicinity of ul. Legnicka and ul. Na ostatnim groszu, near two squares: Grunwaldzki and Słowiański and in the south at ul. Powstańców Śląskich. The need for lower-rank centres (primary and secondary) was also pointed out.

The next stages of shaping spatial planning in Wrocław were related to the performance of analyses of connecting the central city and neighbouring places by continuously built-up areas as well as analyses of spatial development of individual districts along with preparation of detailed plans. In addition, the last two decades on the 20th century brought the system transformation. Apart from attempts to implement democratic procedures and build free market and civil society, the spatial planning system was also considered. Town planning, which heretofore was an instrument of oppression, was considered equivalent with deliberately restructured planned economy [Kozanecki 2015]. Therefore, various, sometimes extreme, spatial planning models were sought to be implemented into the country's legal system. According to some models, the idea of planning should be dropped as the expression of opposition to and disapproval of previous system, while other concepts favoured local planning at a very detailed level. In accordance with one of more popular approach, the so called regulatory plans were developed. They became popular thanks to two designers from Łódź, namely Zdzisław Lipski and Jakub Wujek. They suggested that very detailed plans be drafted, consisting of extensive

analyses of current conditions, public spaces, program and functional and spatial structure and the list of public and social services. According to the assumptions, the plans were to include a detailed transport network with the laying of pipes, sewers, power lines, and cross-sections were to define final shape of streets. Additional elements included: design solutions in the form of visualization, architectural forms for buildings, and boundaries between public and private spaces. It was also considered reasonable to establish identity of particular areas at design stage by indicating names of streets and public spaces [Lipski, Wujek 1986]. The proposed assumptions of regulatory plans corresponded to current understanding of operational planning, in which the planning process iwa closely integrated with the investment and construction process.

The debate on the development of Polish spatial planning system was ended by the Act of July 12, 1984 on spatial planning. A space management model that finally emerged was similar to the German model. It was decided that general and detailed local spatial development plans would be implemented, and the process of proceeding with these plans was clarified. Elements of social participation, such as the possibility of submitting comments and proposals to plans or making the plans available for review, were introduced. The forms of such participation are continued to this day with slight changes. What is more, the obligatory substantial scope of local plans contained elements that are currently also used in town planning documents at municipal level.

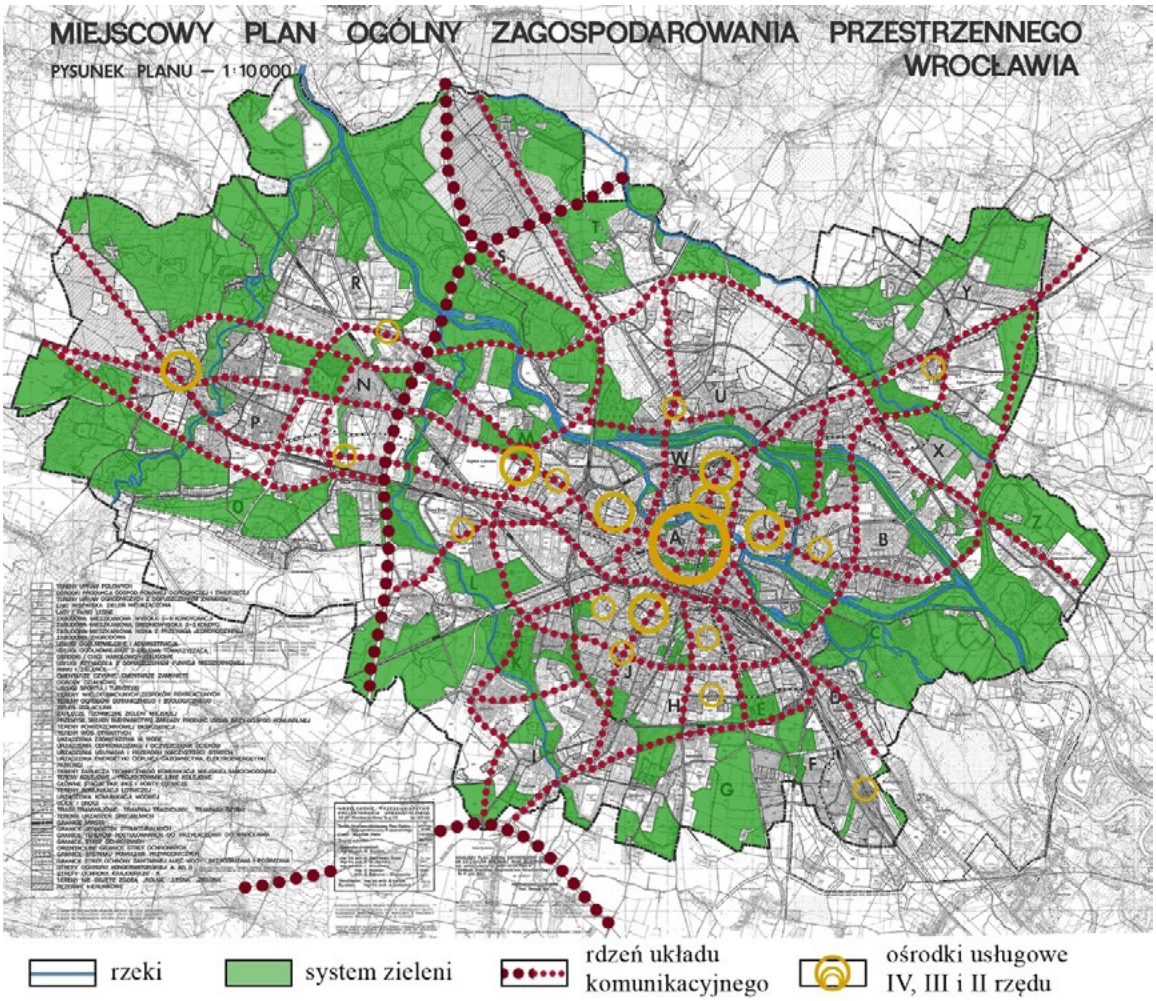

Fig. 7. General Zoning Plan of Wrocław. – based on the City Council Resolution No XXI /104/88 of 10 June 1988.

Miejscowy Plan Ogólny Zagospodarowania Przestrzennego Wrocławia. – opracowanie własne na podstawie Uchwały nr XXI/104/88 Miejskiej Rady Narodowej we Wrocławiu z dnia 10 czerwca 1988 r.

The first and, at the same time, the last study on town planning creating spatial policy of Wrocław, prepared under the Act of 1984, was the local general spatial development plan of the city of Wrocław adopted by the City Council by Resolution No XXI/104/88 of June 10, 1988 (Figure 7). Pursuant to the Act (Article 10 (1)), before the plan was prepared, variants of spatial development of the city had to be indicated. The plan of 1988 was the first such detailed and comprehensive document dedicated to functional and spatial structure of Wrocław. Compared to previous plans, transport system was expanded; the number of bridges to be built was increased, the concentric-radial arrangement of roads was respected (nevertheless, wherever possible, suggestions were made to expand the roads or upgrade their technical class) and a rectangular arrangement was formed. The idea of a downtown ring road closed from the north was back. The needs for public transport system expansion were addressed. Therefore, communications routes were widened in order to make them more accessible and to make room for lines. The idea of the so-called fast tram was the plan novelty. Its purpose was to connect distant city boroughs through public transport in a quasi-transit form. The planned fast tram line was debatable from today's perspective. Partially, it coincided with the existing lines and no conditions were created for multimodal transport (also known as combined transport) requiring the integration of railway stations and tram stops. Additionally, the plan stipulated motorway ring road towards Warsaw and Poznań, which were built connection with the public road construction for the 2012 UEFA European Championship.

The plan also addressed the issue of green spaces, which is in line with the assumptions of previous planning studies. Greenery included meadows, pastures, forests and tree-covered areas, parks, farmlands, orchards as well as areas of low-intensity development such as gardens, cemeteries and sports grounds. Territorial distribution of the above areas covered river valleys and areas previously considered significant for urban microclimate. The biggest difference compared to previous plans was the southern buffer strip where high-capacity building development was allowed. Nevertheless, due to the occurrence of historical relics (e.g. cemeteries), no construction projects were executed in the area in question.

High accuracy of the plan and the division of the city into smaller structural units favoured hierarchical arrangement of service centres. The plan stipulated spatial accessibility to various service centres within 24 separate structural units and the provision of lower-rank services to residents in more than 100 urban areas. To this end, service centres were divided into four ranks. Hierarchically, the most important centre was the citywide service centre of 4th rank, covering the Old Town. The third-rank service centres included (i) business centre in the Southern Centre ("Centrum Południowe") with surrounding high-rise buildings, (ii) academic centre at Pl. Grunwaldzki and Oś Grunwaldzka covering various types of services, (iii) three centres in the west of the city (in the vicinity of important transport nodes or intensified development areas) and (iv) two centres in the north of the city. It was the first such an accurate approach to comprehensive creation of hierarchical structures of services in Wrocław that – on the one hand – were to be provided to a wide range of residents, while on the other hand – they supported the expansion of the city transport structure.

1994–2002

The General Zoning Plan of Wrocław of 1988 is considered by some of the Wrocław town planners as one of the last "rolling" (continuous) plans, i.e. plans that stipulate the city structure preservation, continuation and improvement. Such understanding of design was affected by later structural and organizational changes that led to the closing of the Town Planning Office and removal of the Wrocław Urban Design Company from executing urban projects in Wrocław. Thus, the town planning continuity that began in 1955 was broken. This problem was solved by the establishment of a new Municipal Office unit, namely Wrocław Development Office in 1996, which directly resulted from the study on land use planning developed by Tadeusz Zipser's team [Przyłęcka 2006].

The plan reflected a new legal situation in Poland. A new Act of 7 July 1994 on spatial planning was introduced. Studies on land use planning, as acts that shaped municipal spatial policy and replaced general plans, ceased to be the acts of local law and could not form the basis for issuing zoning decisions (Article 6 (7)). The new Act reduced the importance comprehensive town planning analyses within municipal boundaries and *de facto* introduced the requirement to implement local spatial development plans to protect lands from unfavourable investment projects. Pursuant to the Act, municipal councils were no longer required to adopt draft layouts.

The plan was adopted in 1998 (Figure 8). The idea of a radial-perimeter shape of transport system was continued. Compared to the plan of 1988, the route of the Wrocław Motorway Ring Road (along with the variant of the route of one part of the ring road) and the northern part of the Wrocław Downtown Ring were corrected. In connection with the idea of functional and spatial structure of the city, attempts were made to change transport system in a manner improving communications between areas of economic activity and housing. In the above context, the biggest difference in the routes can be seen in the so-called Axis of Incubation ("Oś Inkubacji"), which was not emphasized in the previous plan to the same extent. Its task was to integrate economic activity in the western and southern parts of the city, and facilitate access to air transport and roads of higher technical classes. An additional road connection towards Poznań was abandoned. Moreover, the plan revealed a tendency to minimize the number of roads of higher technical classes in favour of local roads leading to housing estates. The idea of fast tram that emerged in 1988 was rejected.

Transport system was to favour the city hierarchical structure. A division into the central site and cooperating centres was made, thus creating the metropolitan centre of Wrocław. In order to develop the polycentric structure and relieve downtown Wrocław of some functions, two additional, yet equivalent, centres of general and regional importance were introduced, namely the West Pole and the South Pole. The service centres were supported by district and local centres providing all kinds of services to the residents. Thus presented structure of service centres corresponded to hierarchical division into 1st to 4th-rank centres; however, indirect elements were also introduced, i.e. buffer centres located nearby the city administrative boundaries.

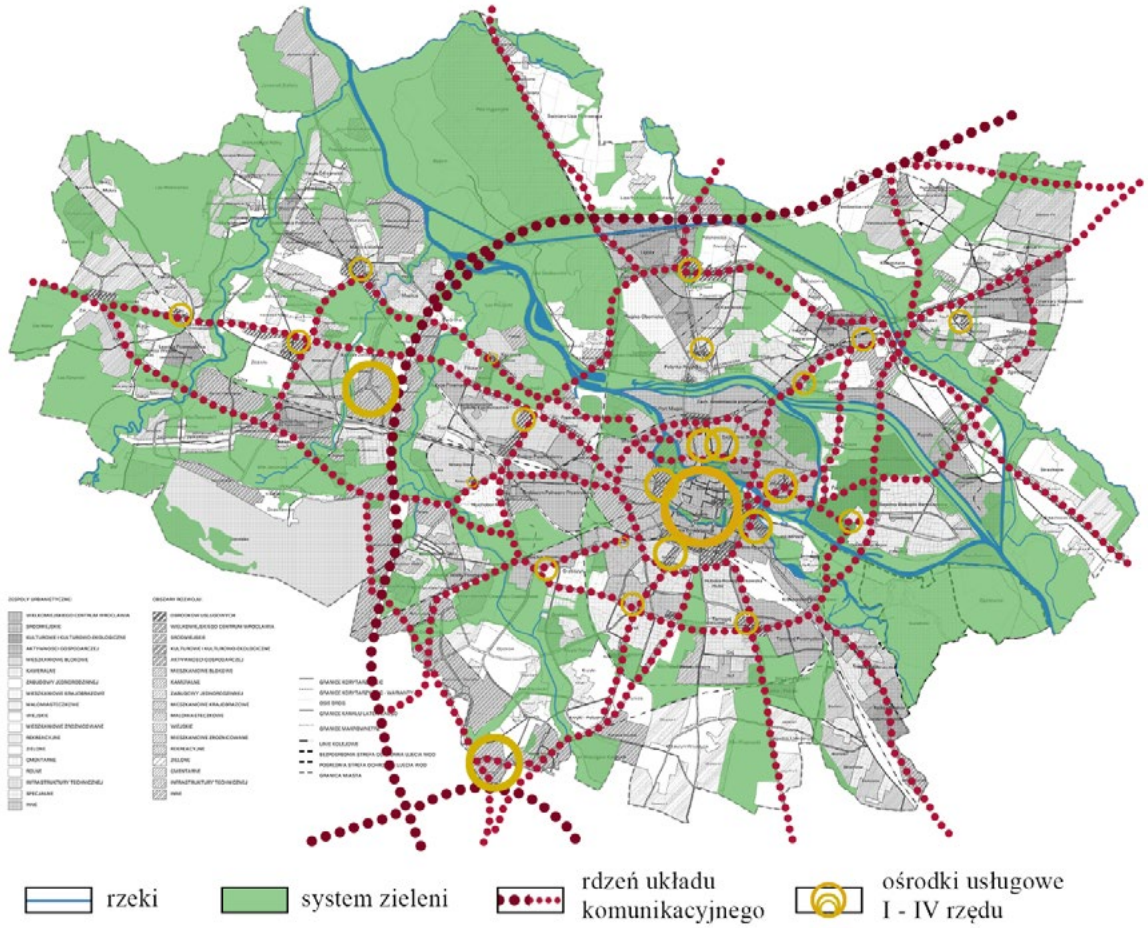

Fig. 8. Study on land use planning of the Wrocław municipality of 1998 – based on Resolution No XLVIII/680/98 of the City Council of Wrocław of January 30, 1998.

Studium uwarunkowań i kierunków zagospodarowania przestrzennego gminy Wrocław z 1998 r. – opracowanie własne na podstawie Uchwały nr XLVIII/680/98 Rady Miejskiej Wrocławia z dnia 30 stycznia 1998 r.

Urban greenery did not significantly change, either: an extensive hydrographic layout together with surrounding areas remained its core. The southern buffer strip, same areas adjacent to the Widawa River and the northern greenery were widened as irrigation fields. In order to build a coherent structure, additional passages between individual buffer strips were also introduced, yet often quite symbolically. The area of green spaces in the north-eastern part of the city was reduced by newly built housing estate yet a green corridor was kept.

In 2001, based on Resolution No XXXV/1126/01, the Wrocław City Council introduced an amendment to the study on land use planning of the Wrocław municipality, however basic elements analysed in this paper were not changed. In the revision of the study, the principles of shaping industrial areas, health and education centres were slightly changed.

The study on land use planning of 1998 initiated the process of systemic and detailed shaping of the space of Wroclaw. At that time, a team from theWrocław University of Technology and Science under the direction of Tadeusz Zipser developed methods for forecasting settlement processes and supporting planning decisions, including the ORION simulation and decision model [cf. Brzuchowska et al. 1994]. These methods are still an important source of information about urban space.

After 2003

Both organizational and socio-economic reforms in Poland proved the need to amend the act on spatial development. On March 27, 2003, the Sejm adopted the Act on spatial planning and development, which, despite the nearly 50 amendments, is still valid today. The initiated legislative changes, despite significant similarities to the Act of 1994, still raised questions about the need for planning in the free market economy. The arguments for planning were as follows:

- an attempt to protect local society interest against the enrichment of individuals at the costs of others, i.e. protection against simplified understanding of private property,
- an attempt to eliminate functional and spatial conflicts and to curb the society polarisation.

Thus presented arguments require a departure from restrictive planning in favour of stimulative planning, in which no significant functions and forms of development are indicated, but rather rules and principles of land use are established [Pracowani ... 1995]. On the one hand, the Act provides for the possibility of taking town planning actions to stimulate development through spatial planning, while on the other hand it allows competent authorities to issue administrative decisions regarding the location of investment projects of public purpose and zoning decisions that do not have to be consistent with spatial policy principles formulated in the studies on land use planning. Pursuant to the Act, investment project could be executed based on administrative decisions which did not have to be consistent with municipal studies on land use planning. 15 years after the Act became effective it is obvious that both in Wrocław and in other Polish cities many investment projects were executed contrary to municipal spatial policy and are believed to have degraded public space.

The amendment to the Act and new needs of spatial policy of Wrocław resulted in changing the study on land use planning (Figure 9). The study was amended pursuant to the provisions of the Act of 2003, which did not differ significantly from the Act of 1994. The amendment was in line with the mandatory scope of the Act, nevertheless methodological achievements and the most important elements of spatial development, defined in the study on land use planning of 1998 [Resolution ... 2006], were used. Previous general assumptions of transport system were changed. Only one variant of the route of the Wrocław Motorway Ring Road was selected while the route in the vicinity of the northern administrative boundries of the city was adjusted. The idea of the Wrocław Downtown Ring Road was continued, but the route in its northern part was modified. There was an additional element of the study on land use was the introduction of the Wrocław Great Ring Road, i.e. another ring road running further from the centre than the Wrocław Downtown Ring Road, in the south and east. In the west and north it was to integrate with the Wrocław Motorway Ring Road. Even though a significant section of the ring road run outside administrative boundaries of Wrocław, the study on land use planning of 2006 as amended was the first document to show it as an additional information sign.

The greenery area was significantly reduced. The area of urban green space decreased compared to 1998. However, the basic elements (i.e. five rivers flowing through Wrocław), which have been considered since the

1950s, can still be spotted. The biologically active areas in the southern buffer strip (the Ślęza River) were reduced, so was the area for irrigation fields in the vicinity of the Oder River and in the Mokrzański Forest, where a housing estate called "Osiedle Malownicze" was built since 2005.

A four-level arrangement of service centres with minor modifications in their location was also preserved. The basic structure did not change: a metropolitan area with a multifunctional downtown and several supporting centres (e.g. two multifunctional centres). District centres (which were considerably modified as to their location) and specialized commercial centres were also established.

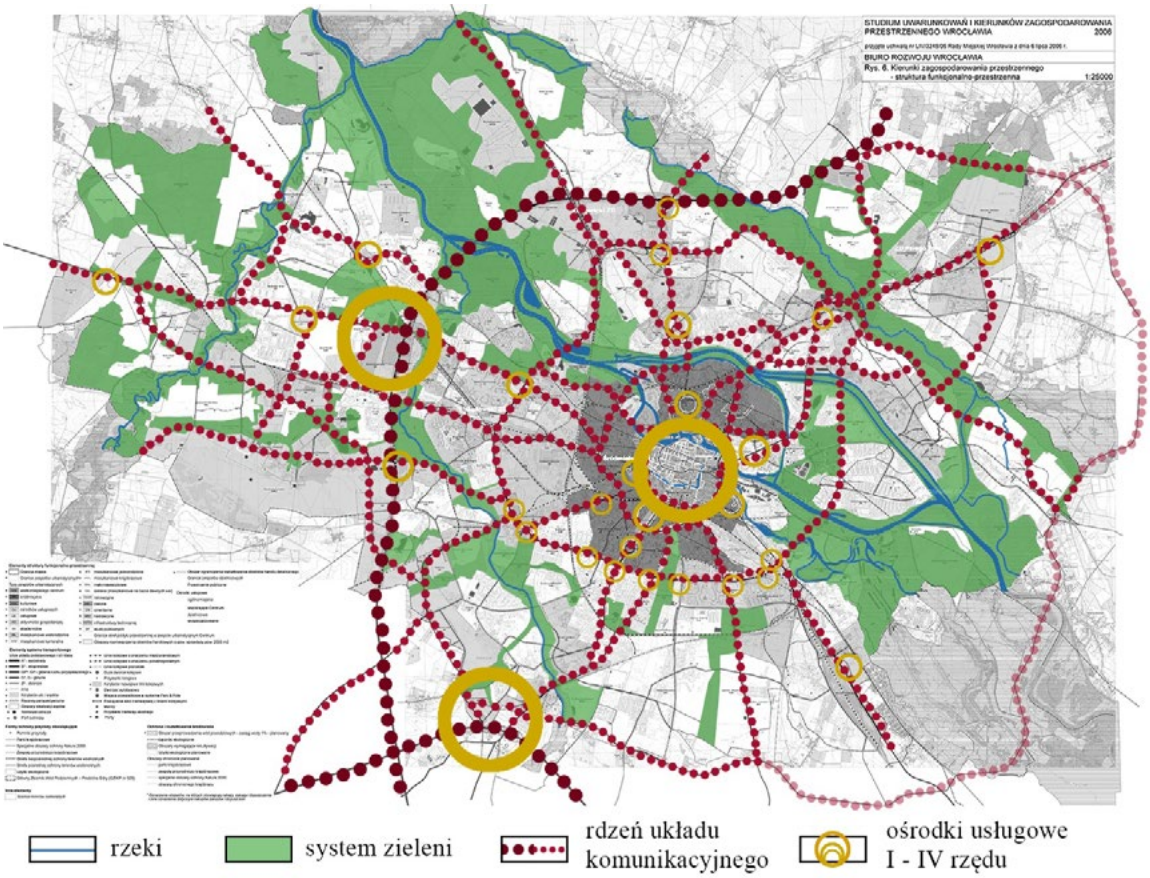

Fig. 9. Study on land use planning of 2006 – based on Resolution No LIV/3249/06 of the City Council of Wrocław of July 6, 2006.
Studium uwarunkowań i kierunków zagospodarowania przestrzennego Wrocławia z 2006 r. – opracowanie własne na podstawie Uchwały nr LIV/3249/06 Rady Miejskiej Wrocławia z dnia 6 lipca 2006 r.

Two years after the study on land use planning was in force, changes were made to it (Figure 10). As the authors say, *the essence of current amendment is the introduction of small adjustments and additions to the city spatial policy resulting mainly from new documents and analyses performed for Wrocław, changes in technical solutions in urban infrastructure and the emergence of new problems that have to be solved* [Resolution ... 2010, p. 12]. The city transport system was not changed: only a small correction was made in the route of the road to Oborniki Śląskie and the so-called Incubation Axis; several adjustments were made to urban greenery: it was enlarged by same areas near irrigation fields and an additional buffer strip in the south of the city, near railway tracks on the route to Strzelin. As regards the hierarchy of service centres, only one modification was introduced, namely the so-called Science and Innovation Pole ("Biegun nauki i innowacji") was added to the Innovation Park in Pracze Odrzańskie (currently Polish Centre for Technology Development).

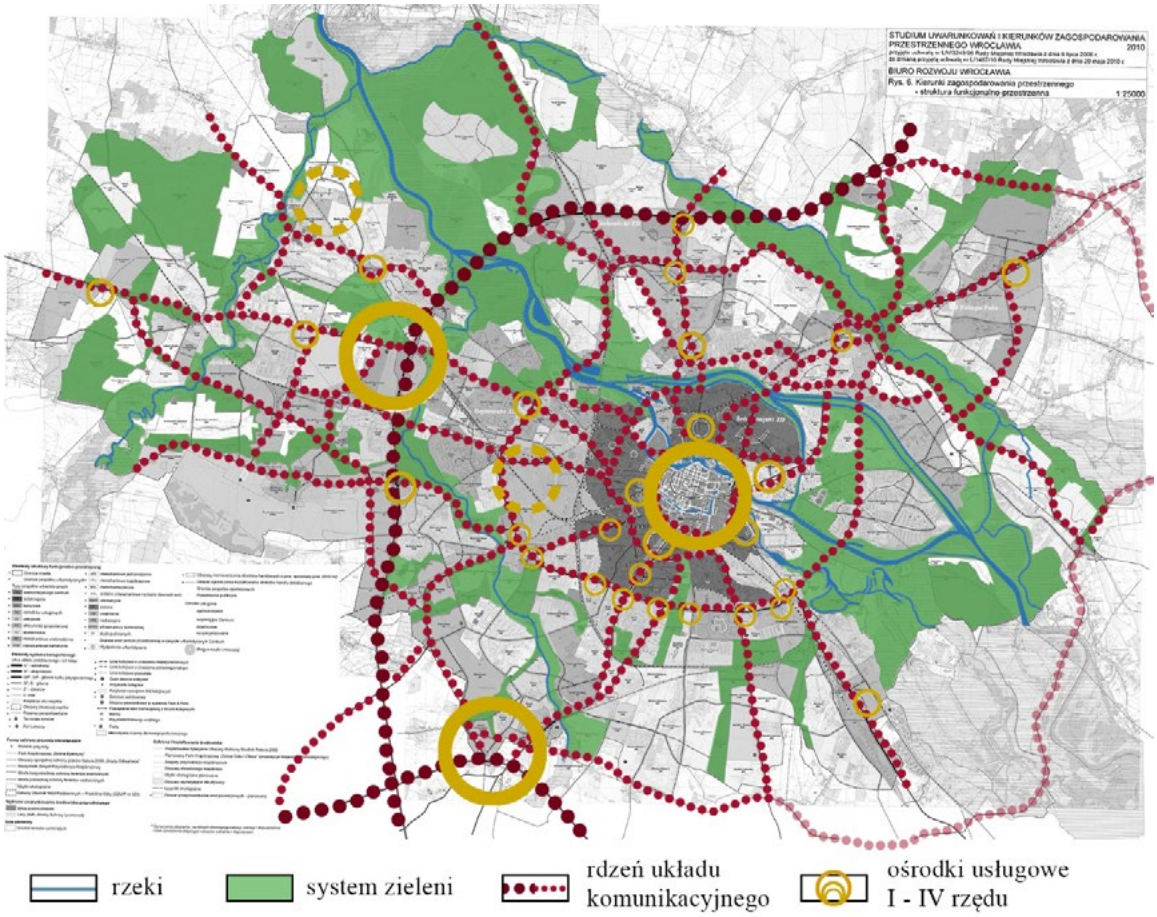

Fig. 10. Change in the study on land use planning of Wrocław of 2010 – based on Resolution No L/1467/10 of the City Council of Wrocław of May 20, 2010.

Zmiana studium uwarunkowań i kierunków zagospodarowania przestrzennego Wrocławia z 2010 r. – opracowanie własne na podstawie Uchwały nr L/1467/10 Rady Miejskiej Wrocławia z dnia 20 maja 2010 r.

The study on land use planning of 2010 was in force for 8 years. In 2018 the Wrocław City Council, by way of Resolution No L/1177/18 of January, 11 2018, adopted another one (Figure 11). The study was a response to multiple amendments to the Act on spatial planning and development, changes in the city functional and spatial conditions and the need to socialize the planning process in the city. Social consultations that lasted over a year, more than 100 working meetings, more than 4,800 applications and more than 1,100 comments influenced the final shape of the document [Studium Wrocław 2018].

The essential elements of the city transport structure were not changed. The route of the road to Oborniki Śląskie was restored to its state of 2006 and the rank of the passage in the vicinity of Kłokoczyce in the north of Wrocław to the Wrocław Motorway Ring Road and trunk road No 98 was raised. Particular attention was devoted to urban greenery[3]. *The new study on land use planning is devoted to green space to a large extent. This is one of the priorities and a completely new approach. We assumed that greenery is not complementary to the city structure. It creates the city. That is why we mapped out approx. 1000 hectares of new green areas in the study (compared to the previous one), partly excluding them from housing development, says Anna Sroczyńska, Head of the Wrocław Development Office. It includes Pola Osobowickie, areas of Nowa Leśnica, Żary, Zgorzelisko, Pawłowice, Swojczyce and Maślice* [Studium Wrocław 2018]. Decrease of housing development opportunities

3 An additional, though significant, issue that has been brought up is the fact that the study on land use was adopted when the Wrocław authorities competed for the title of the Green European Capital awarded by the European Commission.

(and thus enlarging green areas) was also connected with the amendment to the Act on spatial planning and development under the Act on revitalization, which imposed a requirement to analyse municipal needs and development opportunities, and consequently to assess acreage intended for housing development. In spite of the lack of clear statutory guidelines about the principles of such an assessment, the Wrocław town planners determined the target usable floor space per city resident, and indicated the demand for residential acreage based on such usable floor space and demographic forecasts. Ultimately, part of the areas previously intended for residential purposes was incorporated into green space. An additional advantage of the study on land use planning of 2018 is a systematic approach to greenery and climate. Not only the spatial structural core of urban green space, but also *green spaces for rest and play* as part of other urban areas were marked on the plan. Moreover, the designers clearly noticed the need to analyse the directions of airflow in Wrocław, and consequently the need to build residential estate in a manner that is based on the analysis results.

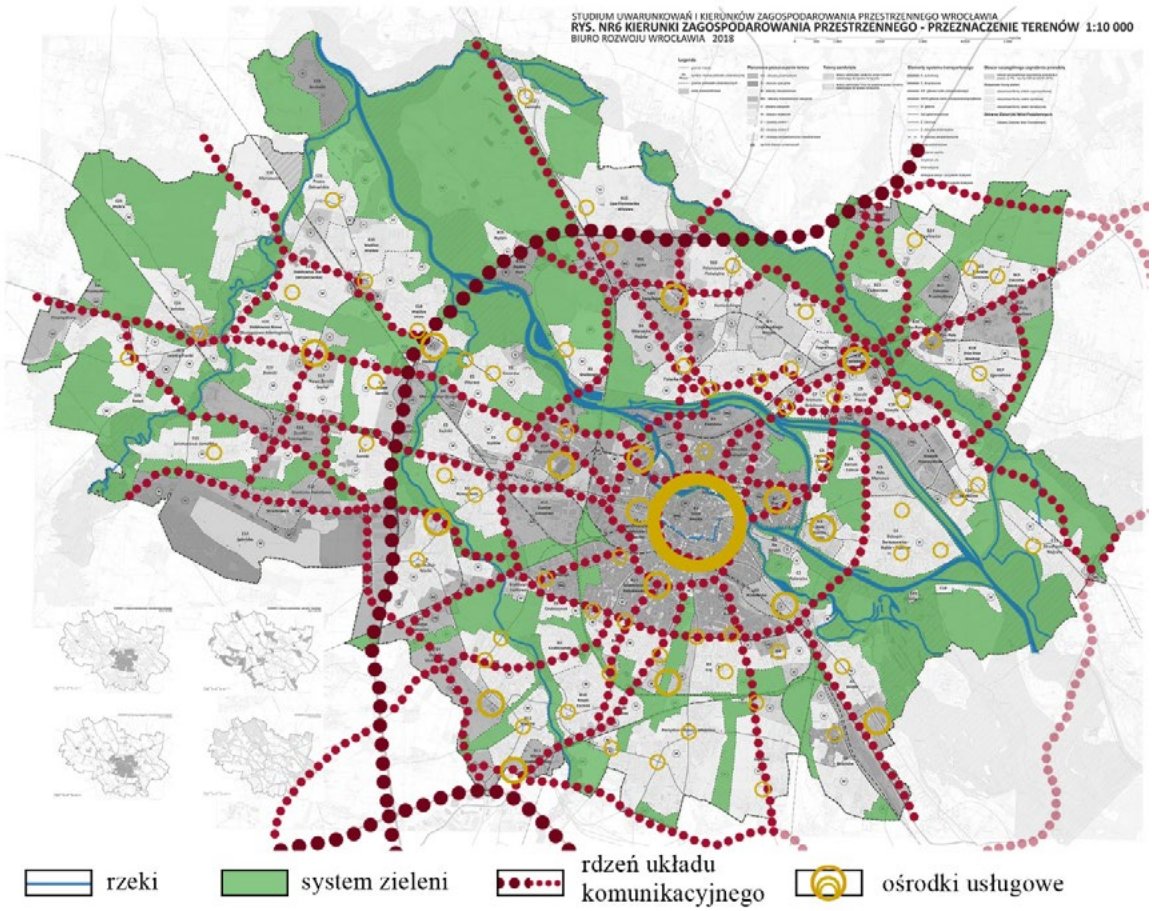

Fig. 11. The study on land use planning of 2018 – based on Resolution No L/1177/18 of the City Council of Wrocław of January 11, 2018.

Studium uwarunkowań i kierunków zagospodarowania przestrzennego Wrocławia z 2018 r. – opracowanie własne na podstawie Uchwały nr L/1177/18 Rady Miejskiej Wrocławia z dnia 11 stycznia 2018 r.

In the latest study on the land use planning for Wrocław, an emphasis was put on a different way of shaping service centres than before. Local centres play the leading role: their functional and spatial offer must meet the residents' expectations and address their daily needs. Such centres are followed by another element of hierarchical structure of services, namely specialized centres that offer *wide range of services specific as to their scope, industry, price level or nature* [Resolution … 2010, p. 133]. The Centennial Hall, the Zoo or the Municipal Stadium are perfect examples of such specialized centres. The central site is located within the Old Town, but

its expansion should cover Pl. Społeczny, ul. Powstańców Śląskich, an area around the railway station at pl. Świebodzki, pl. Jana Pawła II and Kępa Mieszczańska. The central site is shaped to increase spatial accessibility through alternative means of transport (compared to individual forms of transport) and improve the quality of public spaces.

Conclusions

The last 70 years in Poland is a period of dynamic changes, initially systemic and then socio-economic. These changes were followed by town planning, which is an inseparable, spatial element of development. Contrary to preliminary assumptions and opinions of some Wrocław designers referred to herein, it turns out that the Wrocław urban planning and spatial planning are the result of an evolutionary approach to the spatial development issues. The analysed elements of functional and spatial structure appearing in documents affecting spatial policy of Wrocław, i.e. transport system, mobility policy, natural environment with recreation and leisure, and hierarchical arrangement of service centres, result from the adaptation of planning and social needs to the stage of civilization and technological development with consideration of and respect for previously made decisions and historical conditions.

Understandably, there have been changes in the analysed elements of spatial structure of Wrocław over decades. The most important (and still developed) element of the city spatial structure in the analysed time horizon was the radial-perimeter layout of transport system. The most frequently changed element of the city transport system was the northern route of the Wrocław Downtown Ring Road, which was sometimes completely neglected in the projects, and sometimes its route was modified. However, since 2006, one variant of the planned route has been successively maintained. A complete novelty was the marking off the strips of land for the construction of a motorway ring road in the west of the city in 1988; the idea was clarified in later years, and finally the ring road was constructed for the 2012 UEFA European Championship as the Wrocław Motorway Ring Road. There were other innovative ideas referring to development of mobility system, such as a fast tram, which was planned in 1988, but in subsequent planning documents this idea was not continued.

The smallest changes in planning projects concerned green space. The need to integrate greenery into housing zones and areas of economic activity was recognized from the beginning. In each analysed document, the greenery development was based on five rivers flowing through Wrocław. Additional elements were added and were modified over the years, including territorial range of the southern buffer strip and irrigation fields in the north-west of the city. A vital significance was attached to urban greenery in the latest study on land use planning of 2018. Protecting green areas against the effects of anthropopressure results on the one hand from the residents' needs and opinions obtained through social consultations, and on the other hand – from an amendment to the Act on spatial planning and development, which imposed an obligation to assess areas intended for development, and perform analyses of the demand for new residential buildings.

In all planning analyses discussed herein, the historical area of the Old Town – undoubtedly prestigious for the city, the region and the country – was indicated as the basic element of hierarchical arrangement of Wrocław service centres. Nevertheless, in every study on land use planning and in general plan the concepts of the remaining elements of hierarchical arrangement were changed. A lack of consistent spatial policy in this area, and therefore dynamic changes in the approach to shaping service centres, caused territorial diversification in the provision of services to residents by service centres of various rank. The above situation led to an approach presented in the latest study on land use planning, which stipulated the largest number of local centres providing basic services to residents in the vicinity of their places of residence, namely a central centre and a health centre, a leisure centre, a community centre, and s commercial centre. This way of shaping service centres differs from previous suggestion based on four-rank hierarchical structure. The debate on the needs of shaping service centres, their hierarchy and service systems is still taking place in Wrocław. However, the emergence of another large shopping malls that are closed to public space of the city does not create favourable conditions for such debates to be held.

Legislative and economic reforms in Poland since 1989 changed the understanding of spatial planning. Investment projects executed in the spirit of these changes can be assessed as an *all-encompassing freedom which in time turned out to be a democratic anarchy* [Załuski 2005, p. 80]. In Wrocław, despite amendments

made to laws related to spatial planning, the continuity in urban planning was maintained, and the diversity can probably be observed on a much larger scale in local plans (and detailed plans), which were not the subject of the paper. However, reducing the importance of planning on considerable scale in the Act of 1994, which is upheld to this day, does raise doubts. The actual usefulness of studies on land use planning of municipalities and cities consists only in establishing spatial policy, which can be completely changed during the process of issuing zoning decisions (which is very difficult to stop), in the form of zoning permits, and decisions on the location of public purpose investments that do not have to be consistent with the adopted studies on land use planning. On the other hand, the so-called "special acts" adopted by central authorities, which only illusionary accelerate investment process at the expense of reducing the importance of regular acts of law, ignore town planning as *the art of reasonable continuation*[4].

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4 The phrase "town planning is the art of reasonable continuation" comes from an interview with Daniela Przyłęcka, a Wrocław town planner of many years, based on: [Medeksza 2013]

Wrocławska urbanistyka od planów ogólnych do studiów uwarunkowań i kierunków zagospodarowania przestrzennego

Streszczenie: Celem niniejszego opracowania jest próba zdiagnozowania stopnia zmian wybranych elementów struktury funkcjonalno-przestrzennej Wrocławia. Opracowanie stanowi przegląd wrocławskiej urbanistyki na przełomie XX i XXI wieku. Analizie poddano plany układu komunikacyjnego, zagadnienia środowiska przyrodniczego, rekreacji i wypoczynku, jak również proponowane układy oraz systemy obsługi mieszkańców. Elementy te zestawiano z krajowymi procesami legislacyjnymi oraz ogólnymi tendencjami w projektowaniu urbanistycznym.

Słowa kluczowe: dokumenty planistyczne, historia planowania przestrzennego, polityka przestrzenna, Wrocław

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Architecture of tourist and leisure facilities on the Kłodzko-Orlice borderland, on the example of Zieleniec and Lasówka

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Abstract: On the Kłodzko-Orlice borderland on the Dzika Orlica river, regional architecture had a great influence on the form and character of the tourist and recreation facilities built there until 1945. After the Second World War many of these buildings ceased to exist. The new ones do not refer to the rich heritage of the region, as evidenced by the architecture and construction details of guest houses, holiday homes, villas or inns in Zieleniec and Lasówka the best developing locations of the region today, but largely devoid of regional character.

Key words: architecture, region, Kłodzko-Orlice borderland, tourism

Preface

In the Dzika Orlica Valley in the Kłodzko Land among the settlements located on its banks, whose post-war fate was different and many of them were significantly depopulated, the tourist function is currently developing best in Zieleniec and Lasówka. Situated upriver, next to each other, they are characterized by different terrain conditions. The steeply inclined slopes of Šerlich and Orlica belonging to the Orlickie mountains, where Zieleniec is located, contrast with the relatively smoothly sloping planes of the mid-mountain meadows of the Bystrzyckie Mountains, where Lasówka spreads. So there are favorable conditions for the development of winter and summer sports of various types and the possibility to choose the appropriate forms of recreation. The common element connecting the two locations in the sphere of architecture, as well as other in the Kłodzko Land, was certainly the form of regional, wooden buildings, residential buildings as well as those associated with tourism which were built here until 1945.

Today, unfortunately, these houses are becoming scarcer and newly built ones are usually characterized by a foreign form and style, or hardly successfully refer to the rich cultural heritage of the region. It is particularly visible and important in places of touristic value which, being a kind of a showcase for the whole region, should stand out with their architecture, including that of regional origin.

Zieleniec; history, development of tourist and leisure facilities

One of the most famous holiday resorts in the Kłodzko Land with very good conditions for sports, especially winter sports is Zieleniec. This small settlement of woodcutters, shepherds and folk involved in iron ore mining and smelting, once lost in the forest intervals of the Bystrzyckie and Orlickie Mountains, transformed already at the end of the second half of the 19th century into a well-developed ski resort. The establishment of Zieleniec dates back to 1719, when only 20 people lived there, and at the end of the 18th century there were 50 houses and a small church. With time Zieleniec grew, so that at the end of the 19th century there were more

than 80 buildings, a school, a forester's lodge, a wilderness hut, water mills, a sawmill, a limestone quarry with a lime kiln, and a furnace for iron smelting together with a forge (14). The majority of buildings there were wooden buildings of regional origin, located in small groups, on the hills surrounding the center of the village. In 1779 on the top of Orlica, the dominant mountain over Zieleniec, a platform from which one could observe the surroundings [Photo 1].

Fig. 1. A view of Zieleniec from north- western side Interwar period. In the foreground – Adlerbaude hostel and school in Zieleniec. The characteristic scattered buildings of this village are visible. Source: from Andrzej Wziątek's collection.

Widok Zieleńca od strony pn.-zach. Lata międzywojenne. Na pierwszym planie schronisko Adlerbaude i szkoła w Zieleńcu. Widoczna charakterystyczna rozproszona zabudowa tej miejscowości. Źródło: ze zbioru Andrzeja Wziątka.

Fig. 2. Photo 2 Orlica. Hoche Mense Baude Hostel with observation tower* Interwar period. Source: www.dolny.slask.org.pl

Orlica. Schronisko Hoche Mense Baude z wieżą widokową** Lata międzywojenne. Źródło: www.dolny.slask.org.pl

* Destroyed after 1945 complex of buildings with an observation tower, just below the summit of Orlica, the place where Heinrich Rűbarsch settled, is an irreparable loss for tourism in the region. The construction of a lookout tower within the framework of the border cooperation between Poland and the Czech Republic will certainly improve this situation and at the same time re-evaluate the tourist values of Orlica. It will be one of several to be built on the Polish-Czech border.

** Zniszczony po 1945 roku zespół budynków z wieżą widokową, miejsce w którym osiadł Heinrich Rűbarsch, tuż pod szczytem Orlicy, jest niepowetowaną stratą dla turystyki w tym regionie.

Heinrich Rübartsch was of great importance for the further fate of this little-known location lost in the border forests. Born in Niwa near Polanica-Zdrój, after returning from the army in the 1870s he settled in Zieleniec and initially ran an inn, "'Gasthaus zur Mense", located opposite the church. In the eighties he started his activity, also as a mountain guide guiding tourists, mainly from Duszniki through the Orlica massif, ending the tour on the top of this mountain. Unfortunately, the trees growing there obscured the view and at first Rübartsch hung rope ladders on trees, offering more athletic patients this kind of admiring the unfolding views. In 1881, the authorities of the GGV in Duszniki approached Rübartsch with a proposal to build a wooden observation

tower. Half financed by him, it was built as a 16-meter structure with three viewing platforms (19). In 1883 a small cottage was built at its foot, which became the forerunner of the future "Hohe Mense – Baude" shelter. Due to the increasing tourist attendance, the shelter was extended after a year, so that it consisted of two rooms, a vestibule, kitchen and attic [Photo2].

The creation of *The Road to Happiness* [in Polish *Droga ku Szczęściu*], connecting the village of Graniczna situated in the upper part of the Podgórna Valley, integrated into Duszniki in 1840, with the Golden Drift [in Polish *Złota Sztolnia*], the peak of Orlica and Zieleniec, also intensified hiking in this region. The Golden Drift, the largest marble cave in Silesia and discovered in the 17th century, became an attractive place in the vicinity of which the Mensehorst am Goldenen Stollen youth hostel was built in 1927 on the Orlicka Road, then extended by a second building in 1936 [Photo 3].

Fig. 3. The Mense Horst am Goldenen Stollen hostel after its extension in 1936. Located by the Orlicka road*. Source: from Andrzej Wziątek's collection.

Schronisko Mense Horst am Goldenen Stollen po rozbudowie w 1936 roku. Położone przy drodze Orlickiej**. Źródło: ze zbioru Andrzeja Wziątka.

* The complex of buildings forming this hostel was unfortunately devastated and destroyed after 1945.

** Zespół budynków tworzących to schronisko został niestety zdewastowany i zniszczony po 1945 roku.

At the end of the 1880s, Rübartsch intended to renovate the tower, but the GGV authorities, with a jealous eye on the growing popularity of the hostel at the top of Orlica, tried to hamper the development of the activity as well as possible and did not want to participate in the renovation work. Prince Coloredo Mansfeld, the owner of the Austro-Hungarian border areas, helped Rübartsch, as he agreed to build a new tower on his imperial side of the border. His acquaintance with the prince brought another benefit to Rübartsch, namely the skis the aristocrat brought with him from one of his journeys to Norway at the end of the 1980s. So the lord of Orlica, as Rübartsch was also called, was the first to leave traces of skiing in the snow there. The old hostel

was also replaced at the beginning of the 20th century, with a new one with a cellar and attic and 20 beds. The owner himself moved in 1904 to his hostel on top of Orlica, leaving the inn in Zieleniec for his family. The inn building survived until the 1960s, when it was demolished. The hostel on Orlica (*Gasthaus auf der Hohen Mense*) was open all year round and the most attendance was in summer (18). Zieleniec grew without losing its original character of a mountain settlement with scattered wooden buildings. At the beginning of the twentieth century it was inhabited by almost 900 people, there was a stone Neo-Romanesque church, there were prepared ski trails, a toboggan run and a small ski jump with a wooden structure near the church. Accommodation services also expanded and in addition to the hostel at the top of Orlica, there were the following facilities there: *Grunwaldbaude*, *Kastnersgasthaus*, and *Gasthaus zur Mense*, run by the Rűbartsch family.

Unfortunately, the time of economic prosperity, including the expansion of the network of hostels, inns, guesthouses and villas in the Sudetes was interrupted by the outbreak of the First World War. Also the whole Kłodzko Land was affected by changes. The creation of Czechoslovakia in 1918 changed the character of the border between the newly born republic and the German state. So also Rűbartsch had to remove his tower from the Czech side – and build a new one on the German side.

Interwar period

In the 1920s, several new mountain hostels and inns were built near the Orlica summit in competition with the Rűbartsch's inn. The first of these was the *Masarykova Chata* hostel built in 1925 under the peak of Šerlich on the Czechoslovakian side. The author of the winning design, selected through a competition, was Boguslav Fuchs, a well-known Czech architect [Photo 4]. The hostel had the then fashionable, stepped roof form, covered initially with shingles, later with sheet metal. The walls were secured with tiles laid in a diamond pattern. The roof definitely dominated the whole building shape, giving it a compact character. On the ground floor there was a hall, entrance area, a restaurant with a verandah and a kitchen, rooms for employees and a small dining room accessible from the main corridor, and a hygienic and sanitary part. There was also a farm zone with rooms for pigs, goats and cows with a manure pit and woodshed. These rooms were accessible from the inner courtyard or from the main hall. For winter there was a ski room (for skiers and equipment) on the ground floor, accessible from the outside. On the first floor there were bedrooms and washing facilities [Photo 5].

Fig. 4. The Masarykova Chata hostel on the slope of Šerlich, near the border with Poland. This facility was built in 1925. Photo by the author. Condition as of 2009.

Schronisko Masarykova Chata na stoku Šerlicha, przy granicy z Polską. Obiekt ten powstał w 1925 roku. Fot. autor. Stan 2009.

In June 1928, a new hostel, *Hindenburgbaude*, was opened in the Orlica massif in Zieleniec, inspired by the regional architecture of the Kłodzko Land. The author of the design was Konrad Goebel, an architect of the city of Kłodzko and vice-chairman of the ZG GGV. In the entrance area in the main hall, there was a cloakroom and a room for keeping skis, and closer to the main staircase – washing facilities. Then you could go to one of the

four guest rooms; two larger rooms and two smaller ones, one of which was protruding in the form of a verandah to the northwest direction, with a stone structure. The plan was complemented by rooms and kitchen for the hostel manager and (garage) storage rooms accessible from the inner courtyard. On the first floor there were group bedrooms planned, as thirteen- and eight-bed rooms and four single rooms with washing facilities. Accommodation was provided in the attic as well [Photo 6]. The building had a wooden structure based on a stone base course. The whole building shape was crowned with a steep gable roof covered with shingles. The cosy interiors with regional decoration also deserved attention. Next to the hostel there were petrol pumps for cars which, as in the case of *Masarykova Chata*, could get there.

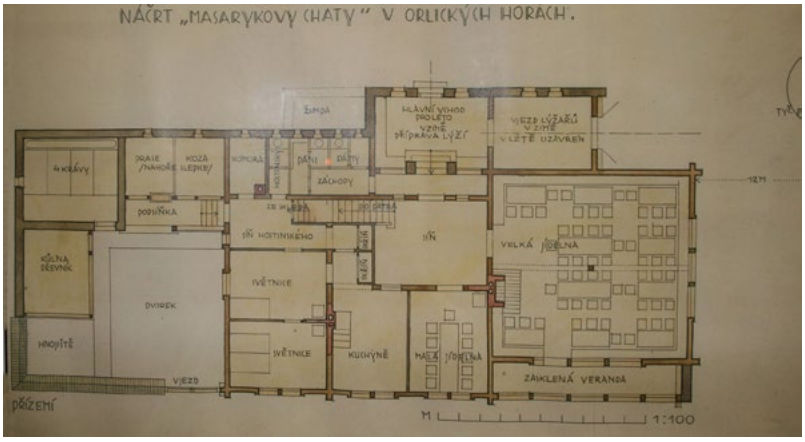

Fig. 5. The ground floor plan of Masarykova Chata at the post-competition exhibition in Orlické Záhoří in 2010. Photo by the author.

Rzut parteru schroniska Masarykova Chata na wystawie pokonkursowej w Orlickich Zahorach w 2010 roku. Fot. autor.

Fig. 6. The non-existent Hindenburgbaude hostel established in 1928 in Zieleniec, at the foot of Orlica at an altitude of 975 m above sea level* Source: www.wroclaw.hydral.com.pl

Nieistniejące schronisko Hindenburgbaude powstałe w 1928 roku w Zieleńcu, u podnóża Orlicy na wys. 975 m n.p.m**. Źródło: www.wroclaw.hydral.com.pl

* This facility was one of the most successful in terms of its form inspired by regional threads, well-thought-out function and selected architectural detail. Currently, this place is overgrown by a forest which is several dozen years old.

** Obiekt ten należał do szczególnie udanych pod względem inspirowanej wątkami regionalnymi formy, przemyślanej funkcji i dobranego detalu architektonicznego. Obecnie to miejsce porasta paro-dziesięcioletni las.

Both hostels were only 20–30 minutes away from each other and were built in a short time, separated by the state border. Their fate was also different. The Czech hostel still exists today, despite the turmoil of war, and the German hostel considered beautiful with a regional, balanced form unfortunately burned down completely in November 1948, after it was left by the WOP (Border Guard Troops) establishment.

The construction of an eight-kilometre-long Hindenburg road (Hindenburgstraße) in 1931–32, now known as the Orlice Road, leading from the Polskie Wrota pass through Zieleniec to the crossroads with the Dusznicka Road under Hutnicza Kopa, was of fundamental importance for the development of Zieleniec and the nearby villages. Marshal Paul von Hindenburg covered part of the construction costs. In addition to the above mentioned hostels in Zieleniec, there were a few more until 1945. These were: Reinerzer Skihütte Grunwald, Ritterbaude and

Adlerbaude in the central part of Zieleniec. The Kammbaude Grunwaldkrone hostel was located at the highest altitude and a little lower was Berghof Rűbartsch [Photo 7]. The Kastnera i Hanka inn was located in the central part of the village. In total, there were more than 250 beds at the disposal of tourists in the rooms of hostels and inns, plus about 90 in collective rooms and more than 25 in private accommodation. The vast majority of the facilities listed here showed a regional character in their form and detail, characterized by scattered buildings, in this beautiful mountain landscape. The topography was also used more and more intensively for sports purposes in Zieleniec. In addition to the ski areas and ski school, there were four toboggan runs, one of which was more than 2 km long under Hindenburgbaude, there were also two skating tracks, an ice rink for hockey, and a wooden ski jump near the church, for jumps up to 40 m long. In 1930 Heinrich Rűbartsch, co-author of the development of Zieleniec as a popular winter sports center and a village with significant tourist values, also in summer due to a well-developed network of hiking trails connecting with the Czech Republic on the other side of the border, passed away. In the panorama of the locations on and near the Dzika Orlica river, it was also possible to distinguish buildings erected in the 1930s of border guards and customs offices, with the form and proportions inspired by the local regional architecture. Near Zieleniec, in the developments of the Mensehorst am goldenen Stollen hostel such a building appeared in 1936, and in the village itself, one building of this kind was located in its center, and three other at the end of Zieleniec, which are now called Forest Apartments and act as guesthouses. They are characterized by a high, steep, gable roof, solid stone base course, brick walls of the ground floor, covered with boards from the outside, as well as a vertically boarded gable wall [Photo 12]. In the attic there was often a large dormer window which indicated the existence of living quarters.

Fig. 7. A non-existent hostel-guesthouse in Zieleniec (most probably Berghof Rűbartsch). Interwar period. Source: www.wroclaw.hydral.com.pl

Nieistniejące schronisko-pensjonat w Zieleńcu (najprawdopodobniej Berghof Rűbartsch). Lata międzywojenne. Źródło; www.wroclaw.hydral.com.pl

After 1945

After 1945, most of the pre-war shelters operated in Zieleniec, except for Hohe Mense Baude at the top of Orlica and Hindenburgbaude, burned down in 1948, which could certainly include, next to Samotnia (Kleine Teich Baude) on Mały Staw in the Giant Mountains and Lucyna (Műller Max -Baude) in the Sowie Mountains to most fittingly referring in their form to the rich heritage of regional architecture in the Sudetes (15).

Unfortunately, in the fifties and sixties of the 20th century many of the existing hostels and inns in Zieleniec were demolished, such as Kammbaude Grunwald Krone called after the war – Crown, Adlerbaude bearing the Polish name Janosikowa Hala and in 1967 Ritterbaude named Orlica III, or Berghof Rűbartsch. The youth hostel Mensehorst am goldenen Stollen also ceased to exist. On the other hand, new buildings were built after 1945, as for example in the second half of the 1950s, the building of the Warsaw University of Physical Education in the center of Zieleniec. In the 70s of the 20th century ski lifts were built and some pre-war buildings were rebuilt. The status of a hostel named Orlica was granted to a pre-war inn built in 1878. After the Second World War in the 1950s, there was a tourist station of the Institute of the Polish Academy of Sciences, and since 1960

Fig. 8. The *Orlica* hostel, currently the oldest building in Zieleniec, erected in 1878 (recently unveiled inscription on the board under the nosing on the gable wall). The former inn since the 60s of the 20th century serving as a hostel. Photo by the author – 2009.

Schronisko Orlica, obecnie najstarszy budynek w Zieleńcu, wzniesiony w 1878 roku (niedawno odsłonięty napis na desce pod naczółkiem na ścianie szczytowej). Dawny zajazd od lat 60-tych XX wieku pełniący rolę schroniska. Fot. autor, 2009.

Fig. 9. Guesthouse development in Zieleniec (*Szarotka* complex) built in the last couple of years distorts the character of the old, free location of buildings, currently creating a compact complex with uninteresting architecture. Photo by the author – 2017.

Powstała w ciągu ostatnich parę-nastu lat zabudowa pensjonatowa w Zieleńcu (zespół Szarotka) wypacza charakter dawnej, swobodnej lokalizacji obiektów, tworząc obecnie zwarty kompleks o nieciekawej architekturze. Fot. autor 2017.

Fig. 10. A recently constructed guesthouse in Zieleniec with quite surprising structural and formal solutions of external walls. The transom system of attic beams contrasts with the wooden and log load-bearing system of the first floor (recycled building material), and brick walls (?) of the ground floor. Photo by the author – 2017.

Niedawno powstały w Zieleńcu pensjonat o dość zaskakujących rozwiązaniach konstrukcyjno-formalnych ścian zewnętrznych. Ryglowy układ belek poddasza kontrastuje z drewnianym-zrębowym systemem nośnym piętra (budulec z odzysku), oraz murowanymi ścianami (?) parteru. Fot. autor, 2017.

there has been a hostel of the Polish Tourist and Sightseeing Society (PTTK) Orlica [Photo 8]. Also after some time two buildings were adapted for the needs of the hostel, thus increasing the number of beds. The building itself in its form and detail is an example of one of the varieties of regional construction in the Kłodzko Land. Steep gambrel roof with a nosing, brick and wooden superstructure with decorative elements of roof rafters, proportions of ground floor walls and roof, vertical boarding of the gable wall and the ground floor do not leave any doubts as to the regional origin of the building (15).

Unfortunately, the appearance of new tourist buildings in Zieleniec in connection with its development after 2000, differs fundamentally in form, the building material used, and the lack of architectural detail, from former regional buildings. The shortage of suitable land for new structures prompted investors to cut down trees and choose land from the slope of Šerlich in the place where the tourist complex Szarotka is currently located [Photo 9].

Fig. 11. An unprofessionally designed arrangement of transom structure elements on the walls of the ground floor and the first floor of the hotel building in Zieleniec, designed to suggest a real structure, gives the impression of artificiality and randomness to an outside observer.

Niefachowo zaprojektowany układ elementów konstrukcji ryglowej na ścianach parteru i piętra budynku hotelu w Zieleńcu, mający sugerowac prawdziwą konstrukcję, powoduje wrażenie sztuczności i przypadkowości u postronnego obserwatora**. Fot. autor 2017.

* Photo by the author – 2017. This problem is discussed in Manferd Gerner's book entitled "*Fachwerksűnden*" published by *Deutsches Nationalkomitee fűr Denkmalschutz Band 27, Bűhl/Boden*, 1989.

** Problem ten omawia w swej książce Manferd Gerner pt. „Fachwerksűnden" wydanej przez Deutsches Nationalkomitee fűr Denkmalschutz Band 27, Bűhl/Boden, 1989.

Fig. 12. Zieleniec. *Leśne Apartamenty*, former border guard buildings from the 1930s, now adapted to the leisure function. Photo by the author – 2017.

Zieleniec. Leśne Apartamenty, dawne budynki strazy granicznej z lat 30-tych XX wieku, obecnie przystosowane do funkcji wypoczynkowej. Fot. autor 2017.

In Zieleniec there are developments with a compact, expanding form, unusual for the landscape of this mountain village. This controversial phenomenon is undoubtedly complemented by the increasing number of ski lifts and cable cars, as well as storage rooms located by the main road for equipment used for the preparation of slopes and other equipment in winter. The recently built third platform for the free passage of skiers over the main road interferes with the view of the spreading out buildings.

As a result of the chaos, Zieleniec has been growing rapidly in recent years, on the other hand, providing new jobs for the inhabitants of the surrounding villages. However, many questions arise about the disappearing architectural distinctiveness of this village, which unfortunately becomes one of many places of this type marked mainly by the spirit of commerce, which results in the construction of buildings with an uninteresting, even boring form [Photo 10, 11]. A certain chance to avoid mistakes made in the rapid development of Zieleniec is the example of the neighboring Lasówka, a village of a different type of development, freely scattered in the area with much smaller slopes, adapted in winter more for cross-country skiing.

Lasówka and glassworks

The history of this picturesquely situated village in the Bystrzyckie Mountains in the Dzika Orlica valley, on the slope of Kłobuka are inseparably connected with glassmaking. As early as in 1614 in the neighbouring Czech Bedřichovka (Friedrichsdorf) Hans Friedrich, the founder of the glassworks in Szklarska Poręba and Jugów, opened a glassworks there too, which was destroyed during the Thirty Years' War. Probably in the area of today's Lasówka there was already a settlement of glaziers (some sources report the end of the 16th century) which, as well as other locations on the Dzika Orlica river on its right and left side, was depopulated and brought down.

After the end of the Thirty Years' War in 1656, a Czech glass-making master from Bedřichovka, Adam Peterhansel, founded a glassworks in the imperial forests and after obtaining the right to locate settlements and glassworks in the valley of the Dzika Orlica river he founded Lasówka on 29 July 1662. The name of this settlement – Kaiserswalde (Eng. imperial forest) refers to its origin (1, 8, 18). Lasówka developed well and in 1693, i.e. when its founder died, the glassworks belonged to the larger and more significant in the region.

A document from 1743 has survived, according to which there were 13 cottagers, 2 well-to-do peasants, 8 villeins, 1 blacksmith, 1 miller, 1 innkeeper and 3 glaziers living in Lasówka. There were 3 cows and 3 goats in the estate. The subjects had 13 cows and 3 goats. Apart from the glassworks there was a manor farm and a water mill. In the following years Lasówka and the glassworks changed owners, until 1801 the whole of it passed into the hands of Johan Christof Rohrbach who in 1812 thoroughly rebuilt it. There were 42 buildings, a water mill and a lime kiln in the village at that time. The glassworks employed 14 people.

From 1853 the glassworks and Lasówka were taken over by the von Pangratz family who owned it until 1945 apart from the short episode of 1854–55 (1, 11, 18).

Fig. 13. A five-field postcard from 1908, depicting the glassworks, Villa Pangratz, Madera inn, school building and drugstore in Lasówka. Source: from the collection of the Museum in Wałbrzych.

Pięciopolowa pocztówka z 1908 roku, przedstawiająca: hutę, Villę Pangratz, zajazd Madera, budynek szkoły i sklep drogeryjny w Lasówce. Źródło: ze zbioru Muzeum w Wałbrzychu.

From the very beginning Lasówka was associated with the establishment of a glassworks and not with agricultural production, which was largely due to its location in mountainous terrain at an altitude of 680–730 m above sea level, soils of low quality, short vegetation period and low average temperature and extensive spruce and beech forest areas. Only successful was cattle breeding on the vast meadows surrounding the village. On the other hand, the unprofitability of agricultural production, cultivation of cereals, potatoes, fruit trees and vegetables, nature made up for the founders of the glassworks with crystal clear streams, countless forest resources, deposits of quartz sands and the border location with the Czech Republic, which was of great importance for the development of the glass industry because it enabled close cooperation. People living there found employment outside the glassworks as painters, engravers and, above all, grinders who in their small wooden houses processed the glass supplied from the glassworks. Others worked as woodcutters in forests, in wood transportation, sand transport, forest ground cover harvesting, or in their workshops they dealt with cottage weaving [Photo 13, 14].

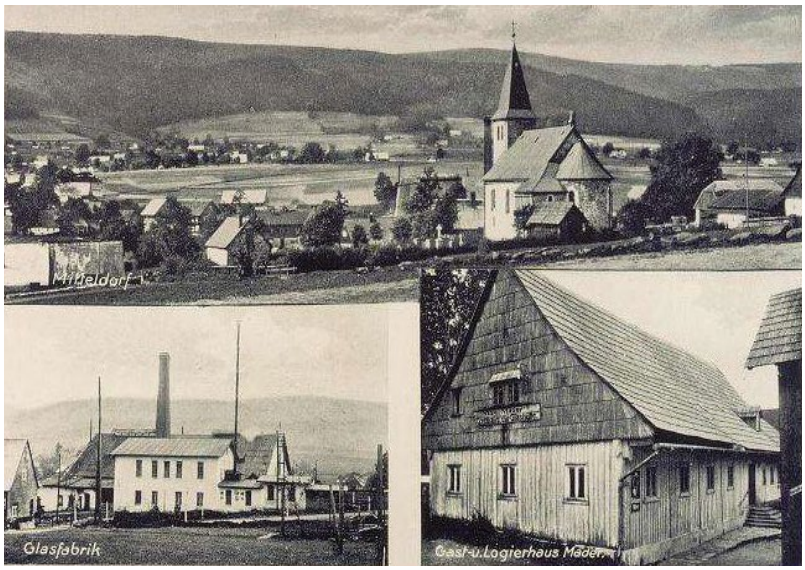

Fig. 14. Lasówka before the First World War. A three-field postcard with the glassworks, Madera inn and a panorama of the village with a church. Source: own collection.

Lasówka przed I wojną swiatową. Pocztówka trójpolowa na której znajdują się: huta szkła, zajazd Madera oraz panorama wsi z kościołem. Źrodło; Zbiory własne

In the center of Lasówka there was also a manor farm with a noble seat (1753). It was located south of the glassworks by a rural road (1).

When King Frederick II of Prussia as a result of victorious wars took over Silesia, including the county of Kłodzko, an order was issued to ban the import of glass, mainly from the Czech Republic to protect and strengthen domestic glass industry. Despite the existence of two glass production centers in the Kłodzko Land, the largest one with glassworks in Strachocin, Wilkanów, Szklarka, Szklarnia, Różanka, Długopole Górne, Poniatowo, Piaskowice, Lasówka and Spalona and the second one with glassworks in Jugów and Woliborz, the glass production was insufficient (1, 18). Frederick II decided to set up a new large glassworks in Batorów (Friedrichsgrund) near Szczytna, and entrusted the task of construction to Ignatz Rohrbach, a representative of a well-known family of glaziers who was a leaseholder of the glassworks in Lasówka from 1768. The glassworks in Batorów produced colored, engraved and gold-plated crystal glass. In the first half of the 19th century, next to the glassworks "Józefina: in Szklarska Poręba was the largest in Silesia, and its products were popular on the European markets.

After the death of Ignatz Rohrbach in 1792 the plant in Lasówka was taken over by his brother Christof. After the reconstruction of the glassworks in 1812, eight years later it employed 34 men and 3 women, and in the grinding shop 5 men and 2 women worked. Unfortunately, in 1894 the old glassworks was destroyed by fire, but during the year a new plant was erected (18) [Photo 15].

The first grinding shop was located in Lasówka above the manor house, but then it was moved to replace the former drawn glass factory and had a steam drive. Apart from the glassworks, the inhabitants of the areas above the upper Orlica were also employed in the match factory. At the end of the 1830s, the match industry started to develop well in this region. In 1845 Ferdinand Wenzel from Poręba founded a match factory in Lasówka

which already in 1869 employed 19 men and 22 women. The plant grew and offered work to homeworkers who produced matches covered with white phosphorus. Also the production of wooden boxes for matches was developed in Lasówka, which created new jobs, especially in winter. After some time, the production of matches packaging was replaced by packaging for the medical industry. Other packagings for shoe cleaning utensils, greases and fats, as well as night lighting were also produced.

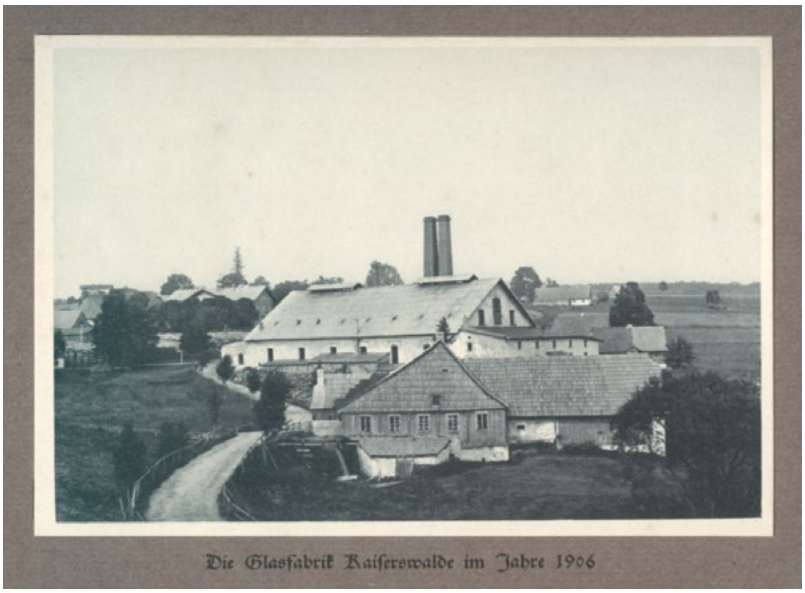

Fig. 15. Lasówka. The glassworks in 1906. The building was closed and demolished at the beginning of the 1950s. From the collection of the Museum of the Kłodzko Land.

Lasówka. Huta szkła w 1906 roku. Obiekt ten został zamknięty i rozebrany z początkiem lat 50-tych XX stulecia. Ze zbiorów Muzeum Ziemi Kłodzkiej.

In the neighbouring village of Piaskowice (Friedrichsgrund) owned by Lasówka, the brothers Ludwig and Oskar Holup founded an artificial jewelery factory (Simili – Edelsteinfabrik) on the site of a paper factory in 1906. The working conditions in the new factory were better than those of the matchmakers in their small, narrow and lightless homes (1, 18).

Due to the mountainous location of Lasówka, the problem was the access to school for children living there, especially in winter. Since 1780 it was located in Mostowice, a few kilometres away. Children from wealthier families lived in Mostowice at their friends' during the winter or attended school in the Czech Republic in the neighboring village of Friedrichswald.

It was not until 1850 that the so-called winter school was opened in Lasówka in an adapted room, which operated from October to the end of April. This state of affairs lasted for 13 years, when it was possible to purchase land for the construction of a new school with state funds. The official opening of the school in Lasówka took place on 14 October 1864 and the number of students was 65.

The growing number of pupils (116 at the turn of the 20th and 21st century) made it necessary to build a larger school with three classes and apartments for teachers. Thus, at the turn of 1898/99 a new building was put into use, where there was also an apartment for a second teacher.

The construction plan of a church in Lasówka, drawn up as early as 1780, was under implementation only at the beginning of the 20th century. The industrialization of the village entailed an increase in the number of inhabitants, and so in 1789 it amounted to 188 people, in 1804 there were already 290 people living there, and the census of 1 December 1910 confirmed the number of 659 inhabitants, 650 of whom were Catholics.

The church construction plan was prepared by Paul Blau, a bricklayer and carpenter from Lewin, already experienced in the construction of this type of buildings as he was the author of the churches in Zieleniec and Kudowa. A plot of land in the village opposite the glassworks and manor farm has been designated for the location.

The Church of St. Anthony belonging to the parish of Mostowice, with clear influences of Romanesque style in its form, was designed as a single-nave church, oriented with a 30-metre tower from the west on a square plan. The foundation stone was laid on 25 May 1911 during Ascension Day.

The solemn consecration of the church took place on 17 September 1912 and the temple and the community were placed under the care of St. Anthony (8).

Interwar period

In the interwar period, the Lasówka crystal glass factory (Kristall -Hüttenwerke Pangratz & Co Kaiserswalde, Krs. Habelschwerdt) continued to operate in Lasówka, producing new varieties of crystal glass, introducing to the European and North American markets a wide range of utility glass designs, which was very popular among numerous customers. The plant was modernized and expanded, among other things, electric heating of glass melting furnaces was installed and semi-automatic devices for the production of glass panes were purchased. The number of grinding and engraving workshops increased and the employment reached 85 people (1, 8).

The glassworks and grinding plant in Lasówka became a part of an industrial cartel together with plants from Szczytna, Batorów, Duszniki-Zdrój, Polanica-Zdrój and Stronie Śląskie. The woodworking industry developed and boxes for the pharmaceutical and match industries were produced (18).

In 1936 Lasówka had 750 inhabitants, most of whom were employed in the traditional branches of manufacturing in the region. A certain, small part of it found its place in services related to tourism and recreation. Already before the First World War Lasówka was classified as a summer resort (3, 4, 7, 14).

According to guides from the interwar period, there were two inns in the village offering accommodation and food for tourists. The first one is an inn located near the church – Max Maders Gasthaus "Zur Glashütte". It had 7 rooms with 14 beds. It also had a restaurant and a youth and student hostel.

Fig. 16. Lasówka. Residential building was built before 1945 with distinct regional features in proportion and architectural detail. Photo by the author – 2016.

Lasówka. Budynek mieszkalny powstały przed 1945 rokiem o wyraźnych cechach regionalnych w proporcji całości i w detalu architektonicznym. Fot. autor. 2016.

Fig. 17. Lasówka. The former *Erlitztalbaude* hostel* near *Mostowy Potok*. Visible regional features of the building's architecture. Currently a private property. Photo by the author – 2005.

Lasówka. Dawne schronisko Erlitztalbaude** w pobliżu Mostowego Potoku. Widoczne regionalne cechy architektury budynku. Obecnie obiekt prywatny. Fot. autor. 2005.

* Initially in the twenties of the twentieth century, there was an inn – *Stumpfgasthaus*.

** Początkowo w latach dwudziestych XX wieku, istniała tu gospoda Stumpfgasthaus.

Fig. 18. Border guard buildings erected in 1938 in Lasówka. The proportions of the whole and architectural detail indicate the regional character of the objects. Photo by the author. 2017.

Budynki straży granicznej wznisione w 1938 roku w Lasówce. Proporcje całości i detal architektoniczny wskazują na regionalny charakter obiektów. Fot. autor. 2017.

The second one is "Stumpf Gasthaus" with 3 rooms and 7 beds located in the north-western part of Lasówka over Mostowy Potok [Photo16]. The inn, which already had 9 beds at the end of the 1930s, changed its name to "Erlitztalbaude", meaning a hostel in the Orlica valley (15). In the area of the Royal Forest colony near the forester's lodge, there was also a small hunting hostel "Sandbaude". Its post-war fate is not known. In the summer, from the train station in Bystrzyca Kłodzka there were 3 buses (das Postauto) to Lasówka, which made it possible for tourists to get to this region of the Bystrzyckie and Orlickie Mountains fairly conveniently, as well as to pass to the Czech side of Orlica. In winter, postal bus routes reached only Wójtowice-Młotów (Voigsdorf – Hammer), i.e. the villages located lower than Lasówka.

Despite its peripheral location, Lasówka had a postal agency with a call office located near the Max Madera's inn. There was also a final stop of postal buses (10, 18). With its buildings Lasówka connected with Bedřichovka (Friedrichswald), Třckov (Trtschkadorf) and Zelenka (Grünborn), on the Czech side of the river.

The center of the village was the church of St. Anthony on the Glassworks Square with the adjacent Madera's inn and post office as well as the glassworks with grinding shop located opposite. Near the glassworks there was a road to a steel framed border bridge over the Dzika Orlica, where the main border crossing was located. Outside of it there were several other smaller passages through the Orlica in Lasówka, which after the war were destroyed.

In total, there were about 130 residential buildings, mostly located near the main road leading through the village, and in the vicinity of the river. Most of these buildings were small, one-story houses with walls of wooden, log frame structure sometimes with vertical planks on the outside. The livestock part of such a building was built of stone, and the whole was covered with a steep gable or mansard roof covered with shingles. Some houses had roofs covered with metal sheet or asbestos cement sheet – diamond shaped, nailed directly to the shingle. The interior of a house consisted of two parts: a living room with a large multifunctional furnace and a small bedroom, and a livestock part made of stone with rooms for cattle and fodder [Photo17]. The two parts were separated from each other by a corridor. In the attic there were residential rooms and rooms for hay. In buildings with superstructures, there were rooms for holidaymakers (17, 18).

After the extension of Lasówka in 1896 by the Royal Forest colony (Königswalde), located in the south-eastern part of the village, the scattered layout of the whole became even more visible. The two forester's lodges in the Royal Forest, together with another one located relatively close to the church in the central part of the village, and yet another one on the opposite – northern side of Lasówka, constituted places in the local development a few kilometers away from each other.

Surely an important attribute of Lasówka, as already mentioned, was and is its exceptionally picturesque location on the Dzika Orlica river together with the neighboring villages, forming a unique area of scattered buildings, among Sudeten meadows and forests. In the interwar period Lasówka, thanks to the construction of the Orlicka Road (Hindenburgstrasse) in 1931–32, 8 km long, and leading from the Polskie Wrota Pass through Zieleniec, to the crossroads under Hutnicza Kopa, where it connected with the Sudecka Highway running through Lasówka, gained a good connection with Duszniki -Zdrój and Kudowa.

After the expansion of the neighbouring Zieleniec with tourist facilities and the construction of the Hindenburgbaude mountain hostel at the foot of Orlica in 1928, cross-country skiing competitions were held on the route from the aforementioned Sudeten facility through Lasówka, Mostowice, to the Spalona mountain hostel (Brandbaude). This route was more than 15 kilometers long. Tourist information was provided by a local teacher in Lasówka (14).

Just like in Zieleniec, two border guard buildings were erected in Lasówka in the 1930s. After the war they were used by WOP (Border Guard Troops) and today they are utilized as private dwellings [Photo18]. Located at the end of the development of this village, identical to the one mentioned in Zieleniec, are an example of buildings permanently and successfully becoming a key part of the surrounding landscape. It is worth emphasizing their regional form enriched with a large dormer as well as inspired by the native architecture, good proportions of the whole.

After 1945

After 1945, the Kłodzko Land, as well as the whole Lower Silesia, found itself within the borders of Poland and the Dzika Orlica became a border river between Czechoslovakia and Poland. The German population left their homes, and settlers from different parts of Poland came to their place, most of them from eastern areas of the Republic of Poland. In the first period after the end of the war, the Polish population settled the areas on the Dzika Orlica relatively smoothly and many former German farms became inhabited. At that time, community ties and good neighborliness emerged between the new settlers. This period lasted until the beginning of the 1950s, when the orders of forced collectivization of villages, which for many repatriates from the East was clearly associated with the Soviet model of economy, increased the sense of uncertainty, instability, and consequently depopulation of the border areas. In addition, there was a lack of confidence in the permanence of the post-war borders, the possibility of the return of Germans and the difficult living conditions in the mountainous region, the lack of opportunities for a wider development of tourism, including tourism in connection with areas located abroad (5).

Fig. 19. The building of the former *Villa Pangratz* in Lasówka. After 1945 there was a colonial center here. After 2006 the building was dismantled. Photo by the author – 2006.*

Budynek dawnej Villi Pangratz w Lasówce. Po 1945 roku mieścił się tutaj ośrodek kolonijny. Po 2006 roku obiekt ten został rozebrany. Fot. autor. 2006**.

*Despite the investor's assurances about the reconstruction of the villa, there is still an empty square here today.

**Mimo zapewnień inwestora o odbudowie villi, do dziś jest tu pusty plac.

Many abandoned buildings were left empty and became degraded and ruined, some of the more appealing ones were dismantled and transported to other parts of the country. Those located on the border, i.e. right next to the Dzika Orlica, were demolished as part of the purification of the border strip in accordance with the top-down directives, which was also done on the other side of the border in Czechoslovakia. As a result, the buildings of the Wild Orlica valley, so picturesquely scattered among meadows and trees, disappeared to a large extent.

Various branches of manufacturing existing until 1945 in Lasówka were not reborn after the war, and the largest production plant which was the glassworks was joined in 1950 to the glassworks in Szczytna and at the end of the 1950s was completely liquidated. First, in 1952, the glassworks was closed down, and then the grinding shop. To this day you can still see the foundations of the glassworks and grinding shop building opposite the church, on the other side of the road, partly overgrown with grass, and the neighboring road leading to the bridge over the Dzika Orlica. A significant fact is that immediately after the glassworks was taken over by the Polish authorities in 1945, a report was drawn up in which it was noted that the local warehouse buildings, as well as the buildings of the nearby estate were filled with glass semi-finished products, which allowed for several years of post-war production (13, 18).

Fig. 20. The "*Szarotka*" hostel in Lasówka. Currently (2018) the facility is closed and will soon fall into disrepair. Photo by the author. 2006.

Schronisko „Szarotka" w Lasówce. Obecnie (2018) obiekt ten jest nieczynny i niedługo popadnie w ruinę. Fot. autor. 2006 .

Fig. 21. A guesthouse in Lasówka erected in 2009. In spite of the adopted style, it is difficult to find regional determinants of form here. Photo by the author – 2012.

Wzniesiony w 2009 roku pensjonat w Lasówce. Mimo przyjętej stylistyki trudno jest tu doszukac się regionalnych wyznaczników formy. Fot. autor 2012.

Also other buildings located near the glassworks, such as the school and the pharmacy ceased to exist after 1953. For some time the colonial center was the building belonging to the Pangratz family before the war (Villa Pangratz) [Photo 19]. The school was located in the later building of the Szarotka hostel [Photo 20]. After the complete liquidation of the school in Lasówka in 1978, many people left the village and moved to the city. At present (2018), it is estimated that no more than 20 to 30% of the pre-war village buildings are left. The church in Lasówka underwent repairs. Among other things, the interior was painted in 1998, and in 2001 and

Fig. 22. One of several new residential buildings built in Lasówka, in a form devoid of regional patterns. Located opposite the closed hostel. Photo by the author – 2016.

Jeden z kilku nowych obiektów mieszkalnych powstałych w Lasówce o formie pozbawionej regionalnych wzorców. Zlokalizowany naprzeciw nieczynnego schroniska. Fot. autor 2016

Fig. 23. Lasówka. A holiday home built in 2010. Photo by the author. 2014. It is a pity that despite the wooden construction of the building and quite careful workmanship, there is a lack of regional identifiers of architecture of the Kłodzko Land.

Lasówka. Dom letniskowy wybudowany w 2010 roku. Fot. autor. 2014. Szkoda iż mimo drewnianej konstrukcji obiektu i dość starannego wykonania, brak jest tu regionalnych identyfikatorów architektury Ziemi Kłodzkiej.

Fig. 24. Lasówka. A single-family building with a wooden structure and a garage under construction. It is a relatively successful attempt to refer in the architecture of the building to the regional heritage of the Kłodzko Land. Photo by the author. 2017.

Lasówka. Wznoszony budynek jednorodzinny o konstrukcji drewnianej z garażem. Jest to w miarę udana próba nawiązania w architekturze obiektu do regionalnej spuścizny Ziemi Kłodzkiej. Fot. autor. 2017.

2002 the altars were renovated. In 2010, the metal roof and tower decking over the church were replaced with new one. Located near the church the Max Mader's inn, initially after the war was in private hands, but since 1952 was taken over by the Treasury and was demolished. After 2006, a two-storey building with a wooden structure, the so-called "colony", was also demolished. Before 1945 it belonged to the owners of the glassworks (Villa Pangratz).

The nearby locations of Piaskowice, Mostowice, Rudawa, Poniatowo or Niemojowo and Lesica succumb to a similar fate with buildings previously in good condition becoming devastated and treated as specific building material storage facilities. The main source of income for the population in Lasówka, after the war was cattle breeding and forest management works. A Production Cooperative was not established there, but other socialized units of this kind were used from nearby villages. In 1978 there were still 34 farms there, and at the beginning of the 1990s only about 10 farms (13). Currently (2018) 103 people live in Lasówka. Despite the fact that after 1945 the function of a holiday resort in Lasówka was not immediately reborn for various reasons, it was not until the second half of the 90's of the 20th century that this area witnessed some revival. The intimidating loss of pre-war building substance in the Lasówka landscape is slowly being supplemented – at least to some extent – by new buildings, mainly in the vicinity of Mostowy Potok and the western part of the village. The problem, however, remains the form and style of newly erected buildings, often differing from local, regional patterns and not different from houses built in other parts of Poland [Photo 21, 22, 23, 24] (17,18). Thus, the recreational function, which is becoming more and more dominant in Lasówka – currently there are more than ten agritourism farms operating – is becoming the primary source of income for the local population [Photo 25]. Many buildings erected here by the inhabitants of Bystrzyca Kłodzka, Kłodzko and above all Wrocław, make Lasówka a fashionable and newly discovered place of outstanding landscape and climate values, with a reconstructed, modernized road connecting it with attractive tourist regions of the Kłodzko Land and the Czech Republic (9, 10).

Fig. 25. Lasówka. An agritourism building, *Chata Sudecka*, with distinct regional features. Particularly noteworthy is the huge mansard roof, which houses a freely living story. Construction – early 20th century. Such buildings can be found in other locations in the Kłodzko Land and on the Czech side of the border. Photo by the author – 2017.

Lasówka. Budynek agroturystyczny Chata Sudecka o wyraźnych cechach regionalnych. Zwłaszcza uwagę zwraca potężny mansardowy dach, mieszczący swobodnie mieszkalną kondygnację. Budowa – początek XX wieku. Tego rodzaju budynki występują i w innych miejscowościach Ziemi Kłodzkiej oraz po czeskiej stronie granicy. Fot. autor 2017.

It is also worth noting that in Lasówka and its surroundings there are very good conditions for cross-country skiing in winter and cycling in summer.

The cycling route around the hills of Kłobuka and Biesieca, more than 20 km long, and a dense network of forest roads covering the surrounding vast forests are the best proof of this.

Every new initiative to make the local tourist offer more attractive is important, such as the parachute competition which took place until recently in July and which brought together a large group of interested people. Unfortunately, this competition, as well as the Szarotka hostel, have been liquidated, and the former building of the hostel is now empty and is gradually getting worse (2018).

Undoubtedly, the opportunity for Lasówka is to further expand the tourist base, not its loss. For this reason, the opening of the tourist border crossing on the Dzika Orlica river in 2015, together with the reconstruction of

the bridge around the non-existent glassworks to Bedřichovka, should be considered as a successful project. The next initiative to reconstruct a small bridge to the Czech side over the Dzika Orlica river in 2013, opposite Chata Sudecka, is also a valuable and worthy of support. Similarly, the actions taken to commemorate the former glassworks in the form of a memorial plaque, and perhaps also a small pavilion, would certainly serve the idea of tourism development in this attractively located village.

Summary

The architecture of tourist and recreation facilities in Zieleniec and Lasówka located on the Dzika Orlica, two villages only 5 km apart, shows similarities and differences, resulting on the one hand from the dominant functions that have crystallized there over many years, on the other hand, the common denominator remains a strong regional tradition. In both of these centers wooden buildings of native form were created, which later became an inspiration for the built hostels, inns, guesthouses or villas. It is particularly visible in Zieleniec, where all tourist and holiday facilities erected until 1945 show more or less regional features. Lasówka was established as an industrial village and was associated with a glassworks until the early 1950s, when the facility was liquidated. In the second half of the 19th century it started to adopt the function of a holiday resort, offering tourists initially modest conditions for rest in small wooden houses, some of which, as time passed, became inns and hostels. In addition, there were several two-storey buildings in Lasówka with a wooden structure belonging to the owners of the glassworks, including Villa Pangratz which survived until the beginning of the 2000s.

The new buildings in Lasówka and Zieleniec, which were built after the Second World War, usually have one, visible, common feature, namely they do not refer with their form or architectural detail to the character of the local native architecture, or they do it in a clumsy way. Although recently several structures have been erected in Zieleniec and Lasówka with more successful formal solutions and better proportions of the building shape, it is difficult to talk about any clear progress here. Nowadays, it is also important that the surviving wooden, regional buildings erected until 1945, are not further degraded and are preserved in good condition for future generations, as a testimony to the beauty of regional architecture.

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Maps

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Architektura obiektów turystyczno-wypoczynkowych na pograniczu kłodzko-orlickim na przykładzie Zieleńca i Lasówki

Streszczenie: Na pograniczu kłodzko-orlickim nad Dziką Orlicą architektura regionalna wywarła duży wpływ na formę i charakter powstających tam obiektów turystyczno-wypoczynkowych do 1945 roku. Po drugiej wojnie światowej wiele tych budynków przestało istnieć. Powstające nowe nie nawiązują do bogatej spuścizny regionu, czego dowodem są pensjonaty, domy wypoczynkowe, wille czy zajazdy w Zieleńcu czy Lasówce, najlepiej rozwijających się obecnie miejscowościach tego regionu.

Słowa kluczowe: architektura, region, pogranicze kłodzko-orlickie, turystyka

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ODDZIAŁ W LUBLINIE