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Vol. 1, No. 2, 2015

Iryna Dyda

THE CONCEPT OF TRADITIONAL ARCHITECTURE IN TERMS OF PRESERVING IDENTITY OF MODERN ARCHITECTURAL SPACE IN UKRAINE

*Lviv Polytechnic National University
12, S. Bandera str., 79013, Ukraine*

Received: November 24, 2015 / Revised: December 16, 2015 / Accepted: February 02, 2016

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Abstract. The article deals with the issue of preserving a traditional Ukrainian architectural environment under conditions of present-day construction. It has been found out that an ecological approach and landscape integration, traditional for Ukrainian folk architecture, which could become the basis for preserving its identity in future, in most cases coincide with the concept of modern organic architecture as well as modern understanding the relationship between society and nature. One of the ways to continue the Ukrainian environment identity is to apply the principles of organic architecture to the process of up-to-date construction.

Key words: architectural environment, identity, organic architecture, architectural traditions.

1. Introduction

In modern conditions the preservation of individual peculiarities and national identity of architectural environment is becoming a necessity. It is not by chance that in the late twentieth century the researches related to the psychology of the environment perception and a psychological comfort of living space became popular. Nowadays, architectural environment turned into a permanent state for a great number of people living in big cities. So, the functional requirements to it are much expanded. In addition to adverse climatic factors protection, provision of necessary conditions for work and rest, formation of aesthetic tastes and behaviours, a modern architectural environment performs the tasks set before the surrounding natural landscape. First and foremost it has to provide residents with opportunities to identify themselves with their place of residence, the presence of such individual features of habitat that form an image of a “small homeland”. Traditionally, this opportunity was provided by the natural surroundings of a town or a settlement – with their original topography, water spaces, trees. Given a small area of urban development, the surrounding landscape is a co-creator of the overall image of the city, thus, even the use of typical architectural structures in these conditions does not destroy the visual identity of the city. However, under the circumstances when the development, which is the place of the residents’ permanent stay, occupies large areas a visual link with the surroundings is deteriorated or even completely lost. Then a natural landscape cannot any longer provide the individuality of the urban image independently (with a few exceptions, when it has a very showy elements – lake, as in Chicago or a large river with steep banks, as in Kyiv) and this task remains with the architectural environment. One of the most common and rational ways to provide architectural identity of the environment is the preservation and purposeful formation of its local traditional features. Then the city exists not only as a functional object, but also as a conglomerate of material environment and residents united by a common historically formed cultural and ideological foundation that can evolve and create traditional principles for future generations. Constant topicality of the neo vernakular style proves it. In Ukraine there is also an acute problem of preserving traditional architectural approaches to a new construction.

For many centuries of its formation Ukrainian architecture has produced its own formative and compositional traditions. Due to historical circumstances they have most clearly and consistently manifested themselves in a folk architecture. In the early twentieth century, on the wave of national style revival in

European architecture, a successful attempt was also made within the Ukrainian modernist architecture [1] to use traditions of architectural shaping in creating the new buildings. New materials were used for new functions through the forms of roofs, window openings, porches characteristic taken from folk architecture (for wall decor they used folk ornament and traditional colours – the contrast of light walls and dark roofs). However, the use of this style, for objective reasons, stopped. And at the beginning of the XXI century the task of reproduction of Ukrainian architectural traditions in modern buildings and in modern materials is still essential.

The purpose of this article is to identify the fundamental features of traditional Ukrainian architecture, which could become the basis for maintaining its identity not only in the present but also in future construction. Therefore, we will focus not so much on architectural forms of individual parts of buildings and their decoration but on the traditional method of organizing architectural environment and a general composition of volumes, because just these characteristics can be preserved under any stylistic solution of buildings, hence, they are not dependent on “architectural fashion”.

Traditional Ukrainian architecture, especially its national construction, was the subject of many scientific papers and articles which described and recorded the construction materials, constructive solution, planning, spatial organization of plots of land, forms of structures and their details, traditional ornament motifs of different ethnographic regions of Ukraine. In different periods Ukrainian folk architecture was studied by V. Sichynsky, S. Taranushenko, V. Karmazyn-Kakovsky, V. Scherbakivsky, P. Yurchenko, V. Samoilovych, T. Kosmina. Much attention was devoted to folk sacred objects by M. Drahan, Ya. Taras. The overview is presented in fundamental works on the history of Ukrainian architecture – the two-volume “Essays on the History of Ukrainian SSR’s Architecture”, ed. by V. Zabolotny (1957) [2], and “The History of Ukrainian Architecture” ed. by V. Tymofiyenko (2003) [3]. Numerous scientific papers were devoted to traditions of Ukrainian urban planning. These studies create a sufficient scientific basis to draw conclusions about peculiarities of forming environment, traditional for Ukrainian folk architecture.

2. Basic Theory Part

The leading role of folk architecture in the formation of architectural traditions is caused by the fact that Ukrainians did not have their own statehood for a long time. The period until the early twentieth century is characterized by aspiration to meet the needs and perceptions of Ukrainians according to their idea about the relationship between architecture and landscape, the composition of a living space, the construction materials and the size of structures.

Therefore, it is advisable to make conclusions about the peculiarities of traditional Ukrainian architecture considering the analysis of just folk architecture. An additional argument is the fact that at a short period of independent development of Ukraine (e.g. late XVII – early XVIII centuries) official architecture also tried to obey folk traditions, especially in terms of spatial composition, layout and colours of the objects [3, 4].

Studying the issues of preserving the identity of modern architectural space should begin with peculiarities of traditional for Ukraine architectural environment formation.

Descriptions of a traditional Ukrainian settlement or estate, given in scientific sources, are confirmed by numerous verbal pictures of Ukrainian XI – early XX century architectural environment which is found in a fiction and imaginative interpretation of the environment in the oral folklore. Here are a few specific pieces taken from scientific papers. T. Kosmina writes: “The close fundamental relationship between architecture and a natural surrounding is one of the most significant features of relatively small settlements, such as the villages. Just this feature of spatial compositions emphasizes the specific nature of the countryside architecture. In the climatic conditions of Ukraine nature is of great importance”; and further: “Green spaces (garden, flower garden, bushes and flowers in the yard itself) as well as the landscaping of the estate become a significant artistic and emotional factor...” [5]. P. Yurchenko claims: “Ukrainian cottage is mainly oriented to its main facade and one side to the south point. Sometimes this caused disorderly-picturesque character of the development of Ukrainian village”; “... village development is notable for the absence of a coherent system: houses, drowning in greenery, are scattered in picturesque disorder on the slopes and hills” [6]. V. Karmazyn-Kakovsky highlights: “... the logic of the plan and the whole architectonics of the best examples of Ukrainian cottage, its relationship with the landscape, magnificent proportions, a pleasant transition from the building volume to the surrounding space and décor are attractive by vividness” [7]. The principles of choosing the

construction sites, traditional for Ukrainian architecture were described in an academic literature. They had irrational, sensual background, based on the laws of nature [8, 9]. The similar principles of forming the environment were applied in sacred construction as well: “Temples could be located in residential area or outside – in the natural environment, but visual connections with the settlement were considered. These public complexes became compositional focuses of traditional rural development and largely shaped the architectural appearance of the settlements “[3]. There are many similar descriptions of Ukrainian folk architecture and their authors are not only professional researchers – architects, but also writers, public figures, travelers [10]. They give the basis for the following conclusions.

1. Ukrainian folk architecture implements an extensive use of a natural landscape in architectural environment composition. At the level of general urban composition, this feature can be seen in the placement of architectural landmarks on the outstanding points of relief, using it as a kind of pedestal for the building; at the estate level – in the placement of buildings on the functionally most appropriate places, taking into account the local landscape and focus on cardinal points; in construction of fortifications – in involving the natural barriers – marshes, cliffs, rivers with steep banks.

2. Traditional Ukrainian construction is actively involving experience of nature in an architectural composition of space and shaping its individual elements. This occurs mostly in the two following ways. The first one is delegation to natural elements and these functions are usually performed by artificial objects. These natural elements can represent both inanimate and living nature. One of the examples is using trees for marking the boundaries of the area (willow fence around the yard, a church with the adjacent area (“cemetery”), surrounded by lime trees), providing trees or ground grass-covered mounds with memorial functions, using appropriate contrasting plants and flowers as informative means of social communication. The second way is interpretation of shapes and compositional concept characteristics of nature in the architectural environment. It manifests itself: a) in the choice of structure size matching the natural surroundings as well as appropriate level of its elements details (e.g., the highest churches are not higher than the surrounding trees, and parting of the construction matches the trees fragments); b) in a general artistic compliance of architectural structures forms with the forms of the landscape and its elements (e.g. slopes of roofs and the way wooden bell towers are segmented and are very similar to the structure of silver-fir tree and the steepness of the mountain slopes corresponds with angles of roofs of residential buildings), c) in using experience of nature for the formation of architectural compositions, which is manifested in the landscape approach to space planning (e.g., choice of structure location not on the basis of proportional geometric calculations, but in accordance with the conditions of the future operation, taking into account the building orientation to the cardinal points, the emotional-energetic favorableness of location, local climatic features), d) in applying to architecture characteristic color regularities of nature (contrast singling out the most important elements of the environment), e) in the predominance of curvilinear, irregular layout of settlements and traditional respect to smooth lines and shapes [11].

3. In traditional Ukrainian folk architecture internal and external spaces were very closely intertwined. At that, the connection was not only compositional, but also functional. In housing construction it is manifested in the periodic moving of some interior features toward an open space near the house: when the weather were favourable, the functions of a dining room, a living room, a workshop, or even a bedroom would be taken over by a garden and a yard. As a result, the distinct functional and emotional boundaries that separated the two spaces just disappeared. Moreover, a transitional space of the house was actively used – porches, sheds, galleries. Special attention to the transitional space was reflected in ancient folk customs associated with the home threshold.

4. Use of local natural materials – wood, clay, straw, and sometimes (for foundation wall, supports or outbuildings) stone was traditional for Ukrainian folk architecture [12]. Although any folk architecture uses local materials, Ukraine did have such peculiarity: strong preference was given to non-durable construction materials, sustainable in nature – wood, straw, clay. Use of stone as the main material for residential and sacred buildings was avoided in principle. In addition to the territory of Ukraine, similar choice of construction materials was mentioned by the researchers of folk construction of the adjacent territories in Central-Eastern Europe [13]. It is important that such buildings were environmentally friendly not only with a human being, but also with the environment because after the structures became unnecessary they could be easily returned back to the ecological system, without bringing it any harm.

5. In traditional Ukrainian architecture, like in folk construction of other countries, architectural form and constructive solution of structures match local climatic conditions. For example, there is a direct correlation between the angle and the height of roofs and the amount of precipitation in the region: in the Ukrainian mountainous and forest regions the roofs are higher than in the steppe part of Ukraine. The peculiarities of the climate are reflected in such traditional constructive elements of Ukrainian folk architecture as porches, sheds, galleries. The climatic factors influenced even the colour of facades: clay of a darker colour was often used for a north-side facade of the cottage that was more often exposed to rains and winds, and was also protected by a layer of wood or straw, whereas a southern wall was whitewashed [6].

6. A philosophical aspect Ukrainian folk architecture follows “nature knows best” principle. In the formation of architectural environment there is a marked desire to consider the regularities of natural processes, coordinate the actions, and not to resist them. The consequence of this approach is, firstly, adjustment of architecture to existing landscape situation, avoidance of its radical transformation, secondly, use of compositional principles in architectural space by which natural environment is formed, namely: irregularity, “irrationality” of the composite structure, contrast highlighting of important elements, combining aesthetics with functional expediency, etc., relative short-life of architectural structures, which, like elements of natural landscape, have their own determined period of existence and disappearance, giving place to new generations of objects, similar by their function. This last circumstance gives the opportunity to the next generations to create the architectural environment, taking into account their own needs, which are constantly changing following the development of the society, and at that to protect the environment from radical irreversible changes, caused by architectural activity of a human. Unfortunately, this approach, which was apparent already in the time of Tripoli culture proto cities (IV Millennium BC) [3], has also a downside for us: unlike, for example, Italy, now we do not have any opportunity to admire objects of folk architecture, aged more than 300 – 400.

Let us consider the traditions of Ukrainian folk architecture in the context of modern concepts of architectural environment and sustainable development. An active cooperation of architecture with the natural environment, ecological approach to design, development of organic architecture [14, 15] are considered to be the results of progressive architectural ideas of the twentieth century, when people realized their responsibility towards the environment, took interest in the principles of natural shape creation and in an attempt to solve accumulated environmental problems and to find harmony with nature, based on a new conceptual foundation of understanding biosphere processes started to apply these principles to architectural practice. This natural-ecological approach to environment formation has also become an alternative to classical, rational architectural design, which has developed in European architecture since the days of the Roman Empire, on the basis of certain stylistic, proportional and aesthetic canons. The twentieth century saw the emergence of new concepts in urban development. B. Posacky, in particular, writes: “In the second half of the twentieth century a discrete, discontinuous form of urban development was offered as a possible alternative which is generally based on the idea of “garden city”, put forward in the early twentieth century by E. Howard [16].

According to the dictionary of architectural terms, organic architecture is a philosophy in architecture of the twentieth century, linked with the idea of creating architectural forms, which, like the forms of living organisms, would follow the function of the building and its environment. The basic principles of this architectural direction are:

- individuality of each building is caused by the properties of construction materials, characteristic functions, customer requirements, construction site, and, as a result, rejection of industrial forms of construction;
- compliance of architectural forms with natural landscape and merging with it.
- creation of a unified space in the interior that flows;

Another meaning of the term “organic architecture” is architectural creativity, which is based on the principles of conditionality of the architectural form by objective factors: function, natural environment, properties of material, etc.), its construction – from the interior space up to exterior parameters and characteristics, as well as buildings, constructions and their complexes, as the results of this kind of architectural creativity orientation [17].

In the publications devoted to the analysis of modern stylistic trends in architecture, the main task of organic architecture is defined as the creation of objects, with the shape that would be caused by a particular function and specific environmental conditions, and the term “organic” is used in three different meanings: in the correspondence to the nature of its assignment and materials, is subordinated to the conditions of the natural landscape, the one that copies natural forms and samples [14]. Special attention is paid to applying principles of

“ecological semantics” philosophy in modern architectural environment, which considers nature as a specific context, and knowledge as elements which should become its continuation [14].

In practice, apart from modern principles of ecological semantics, the two methods of integrating architecture with the natural environment are used: 1) architectural structures are trying to reveal unity and even identity with nature through consistency of volumes and spaces; 2) architectural objects should be inconspicuous among the natural environment, visually “blend” in it.

A lot of analytical research articles were devoted to the principles of organic architecture. They summarize the methodology of implementing these principles in architectural practice. In all these studies the main features of structures which belong to organic direction in modern architecture are actually the same, differing mainly by the level of generalization of certain characteristics. The means used in organic architecture and defining stylistic belonging of the constructions to the given direction are in particular the following: use of natural materials, involvement of natural constituents into shaping, use of natural relief in architectural composition, compliance of architectural forms with local climatic conditions, providing connection of internal space with the environment [18].

3. Results and Discussion

Comparative analysis of the principles, methods and tools used by the modern followers of organic architecture, and traditional, functional, constructive and compositional characteristics of the Ukrainian folk architecture shows almost complete identity of architectural concepts of the environment organization, despite the fact that there exists some distance between them having formed for many thousands years (Fig.1). Also in traditional Ukrainian urban development which have always been known for its scattered buildings, surrounded by green spaces [11], it is easy to find analogies with modern concepts of “cities-gardens” created in the North of Europe. The difference primarily lies in technologies of practical implementation of these concepts, but not in their ideological component. In both cases, the architectural activity of the individual is focused on the application of the principles and patterns that operate in natural environment and on the attempt to cooperate with nature rather than to oppose it.

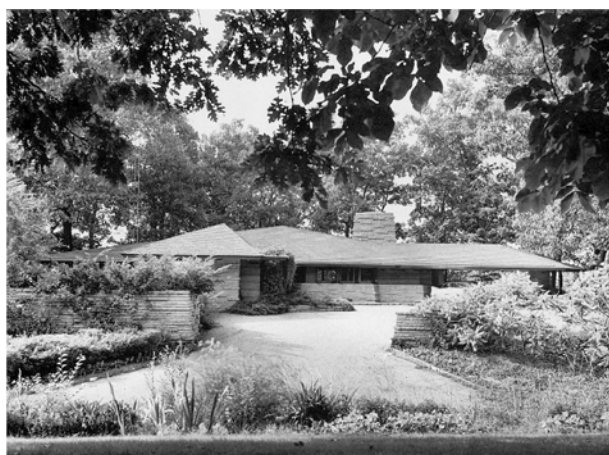
The realities of modern life have made the concept of sustainable development of cities and large territories be extremely urgent. At the UN Conference on environment and development held in 1992 in Rio de Janeiro “Rio Declaration on environment and development” was approved. The third principle in the preamble of this Declaration states: the right to development should be maintained so as to adequately meet the needs of present and future generations in the areas of development and environment” [19].

Returning back to the experience of organizing living environment, accumulated by Ukrainian folk architecture over the millennia of its formation and development, we must say that in the basis of its formation the principles identical to the modern concept of sustainable development lie as well. Abstracting from objective reasons and circumstances that contributed to this situation (for example, landscape and climatic conditions, and the like), Ukrainian folk architecture using for construction short-life construction materials of natural origin and compositionally inserting transport communication and architectural structures into the existing landscape situation, has always met the two basic requirements for sustainable development: to satisfy the living needs of its contemporaries and to preserve the resources of the natural environment for future residents. Each generation, erecting residential constructions, outbuildings or sacred buildings, had the opportunity to meet desirable functional needs. But the buildings, made of nondurable natural materials (wood, clay), had a relatively short service life, and were utilized by nature. Consequently, the following generations replacing them could create a new architectural environment which met new functional needs in better way. It is important that the practice of maximum non-interference in the existing landscape based on firm philosophy-worldview principles should state in folk beliefs and customs [20]. This contributed to the preservation of the landscape in an unaltered state for a long time. A. A. Kucheruk, analyzing the importance of the book by I. Ohienko notes: “The respectful attitude and admiration of land is reflected through centuries in the sayings given by the author: “Keep to the land, because it keeps us”, “Be rich like land and healthy like water”, and he quotes Ipatiev chronicle, where land is positioned as Mother, you have to respect, and which reflected people's philosophy of man and nature unity [21].

4. Conclusions

From the above material the following conclusions can be drawn.

1. One of the main, fundamental features traditional for Ukrainian folk architecture, is its integration with the natural environment and focus on nature as a pattern to follow in different spheres of architectural activity: in composition of space and its functional use, in shaping, in colour, in ecological approach to the environment. In the architectural-spatial compositions of settlements this feature is distinctive and evident among the other things, in dispersal and low density development, in the use of natural elements, including living ones, as equal participants in the environment organization, which can be delegated some functions (e.g., memorial, symbolic, demarcating and protective), in ensuring a permanent restoration of individual objects without radical changes in the nature of the architectural composition of the environment, in the adaptation of architectural objects to the existing conditions of a natural landscape.



a



b



c



d

Fig. 1. The similarity of approach to organization of environment in objects of modern organic architecture and of Ukrainian folk architecture:

a – F.-L. Wright: Howard Anthony Residence [22]; b – house in Korytne village, Lviv region (water-colour drawing, O. Kulchytska); c – F.-L. Wright: Georg D Sturges Residence [22]; d – bell-tower, XVIII century, in Yasenytsia Zamkova village (drawing, O. Kulchytska)

2. A conscious approach to the environment formation is a characteristic feature of Ukrainian traditional folk architecture. The principles and tools used by modern organic architecture and other stylistic trends developing the concept of environmental architecture, “cities-gardens”, sustainable development are, in fact, in modern conditions and with the support of modern scientific and technical facilities a return to the long-established traditions of living environment formation developed by Ukrainian folk architecture. Therefore, for preservation and development of Ukrainian architecture identity it is extremely important to apply nature-oriented, ecological architectural stylistic trends in modern architectural design and construction. For Ukrainian architecture just modern application of these concepts can play the role of neo vernikular architecture.

3. Integration of architectural objects in natural environment, as well as attraction of landscape to the solution to individual functional problems of space organization do not require necessary use of traditional architectural forms in new buildings. Compositional effect “of living in harmony with nature” can be also obtained using innovative forms and modern technologies, while maintaining the appropriate scale of structures. Therefore, this “organic” vernikular provides long-term preservation of identity of Ukrainian architectural environment which could be irrevocably lost if the other alternative architectural concepts were used.

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КОНЦЕПЦІЯ ТРАДИЦІЙНОЇ АРХІТЕКТУРИ В АСПЕКТІ ЗБЕРЕЖЕННЯ ІДЕНТИЧНОСТІ СУЧАСНОГО АРХІТЕКТУРНОГО ПРОСТОРУ В УКРАЇНІ

***Анотація.** Стаття стосується проблеми збереження традиційного для України архітектурного середовища в умовах сучасного будівництва. Виявлено, що традиційні для української народної архітектури екологічний підхід та інтеграція з ландшафтом, які могли б стати базою для збереження її ідентичності в майбутньому, в багатьох напрямках збігаються з концепцією сучасної органічної архітектури і сучасним розумінням відносин суспільства і природи. Одним із шляхів продовження української ідентичності середовища є застосування принципів органічної архітектури в процесі сучасного будівництва.*

***Ключові слова:** архітектурне середовище, ідентичність, органічна архітектура, архітектурні традиції.*

Переклад: Семко Н. М. – канд. філол. наук, доц., зав. каф. іноземних мов Львівського інституту ДВНЗ “Університет банківської справи”

Vol. 1, No. 2, 2015

Sergey Ivanov-Kostetskiy, Kateryna Ianchuk

FACILITIES OF CITY DESIGN: SMALL ARCHITECTURAL FORMS

*Lviv Polytechnic National University
12, S. Bandera str., 79013, Ukraine, von-avi@i.ua*

Received: November 28, 2015 / Revised: December 19, 2015 / Accepted: January 12, 2016

© *Ivanov-Kostetskiy S., Ianchuk K., 2015*

Abstract. The background and basic functional principles of the means of urban design forming have been considered in the article.

Key words: urban design, city environment, outdoor furniture, visual communication.

1. Introduction

The line of planning and design in the improvement of environment is caused by the need to develop and systematize the elements that form a comfortable city design, on the basis of humanization. Unfortunately, the underlying factors of influence on a city design forming are absent in most cities of Ukraine. Therefore, the main means of urban design have been defined due to the successful examples and investigations.

1.1. The purpose of the article – high lighting the means of urban design forming and the factors that influence its creation as well.

1.2. Analysis of researches and projects

N. V. Anisimova [3], V. T. Shimko [6] A. I. Urbach [4] and other considered the factors of urban design. Some theories of the city design can be found in these works, but they don't contain thereasonable conclusions about the measures that affect the formation of convenient city design.

2. Basic Theory Part

Small and large architectural forms are considered to be the main elements of a comfortable city design formation. Historically, the first notion that appeared in the realm of the architectural form was the one which interpreted the elements of street furniture and equipment, as the individual details of architectural spaces of the city. But later, the organization of highly comfortable urban environment through individual architectural compositions and works appeared to be impossible. So, the idea of integrated approach to urban design forming arose in the big cities. In the most of big cities with wide-ranging building process the administration developed the comprehensive programs of the public area improvement. The implementation of these programs includes using the modern small and large architectural forms of high-quality and other elements of a comprehensive improvement in the design and implementation of the boldest design projects of urban environment (Fig. 1).

Outdoor furniture and equipment, signs and advertising, retail storefronts, “super-graphics” facades and road surfaces, sculptural shapes, pictures and other objects of monumental and decorative art and urban design, being a subject-saturating factor of the city environment and forming a, so-called, “urban orchestra”, are becoming an integral component of the spatial environment of a modern city, defining the conditions of comfort and convenience, figurative art quality, having a significant and, sometimes, critical influence on the impression of perception, on the formation of not only separate and specific architectural ensemble image, but of a city as a whole (Fig. 2).

In the 1960-70s the architects, dealing with the improvement of urban areas began to use the term “a small architectural form”, which defined the elements of a, so-called, subject cityfilling. The notion “a small architectural form” traces its roots back to an architectural ensemble. Designing a palace the past masters worked on all the project details from the facades and interiors up to the form the door handle, as well as adjacent park, including the project of garden house and bridge over the pond. Later, this “ensemble principle” was used in the Soviet architecture of the, so-called, “Stalin classicism” epoch. According to this principle, the benches, street lamps, vases, sculptures and other subject forms were the constituent elements of an overall composition and the stylistics of an architectural ensemble. They are presented to a viewer as the facade decoration details, hence the term “small architectural forms” with a lot of decorations in the form of ornaments, moulding and warrants. Completed, as a rule, of the same materials as the architectural facades, and, therefore, usually massive and heavy, they, together with the objects form a single art-style complex, that is, an architectural ensemble [1, p. 24].

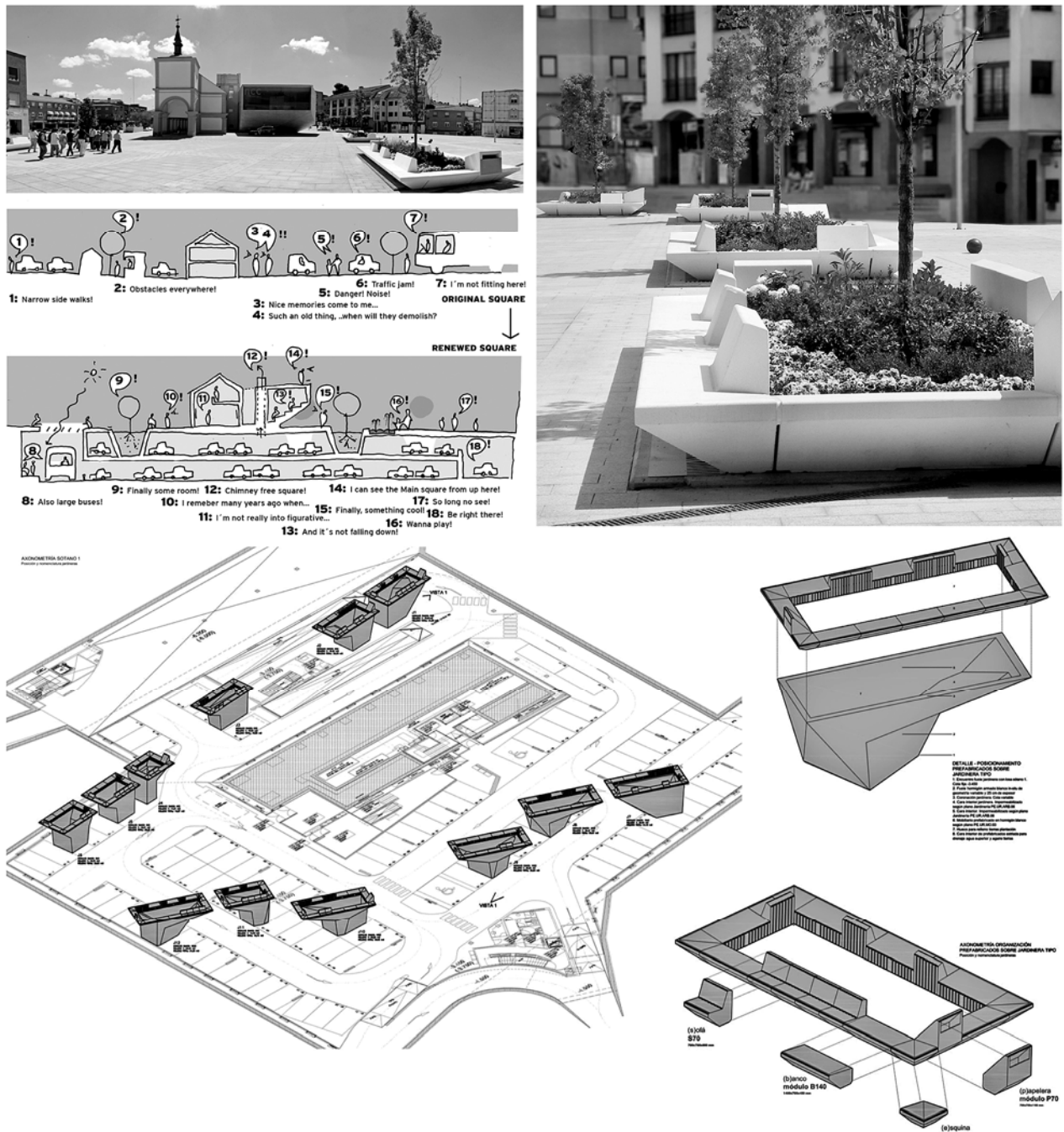


Fig. 1. Architectural forms at “NewCulturalCentre”, 2011.
 Architect: “FÜNDC”. Madrid, Spain [7]

In the second half of the twentieth century, due to the development of industrial design, the situation in the realm of the objective urban spacesfilling began to change radically. Instead of veneer boardwalk kiosks and telephone booths “artisanal” the industrial production forms of telephone boxes, vending machines and multifunctional space moduleswere introduced using the latest, at that time, materials and technologies, and in consequence of it the archaic small architectural forms were replaced by modern outdoor furniture and equipment. That is whya patio furniture became less massive and heavy. This was due to the properties of the new forms of subject as mobility and variability. At that, the design of industrial objective forms didn’t contradict the principle of architectural ensemble, but in case of a successful design promoted the composition, stylistic and semanticpreservation ofa spatial ensemble holistic structure, itsreinforcement, and, sometimes, allowed to form it anew.A brilliant example a pedestrian streets design can be historic center of many European cities (1970–1980 s), where thestreet furniture and elements of visual communication together with a coloristic decision and landscaping improvement formed an original street style (corporate identity) as a unique spatial ensemble worthremembering. This became a revolutionary moment in the history of the management of city object-spatial environment.

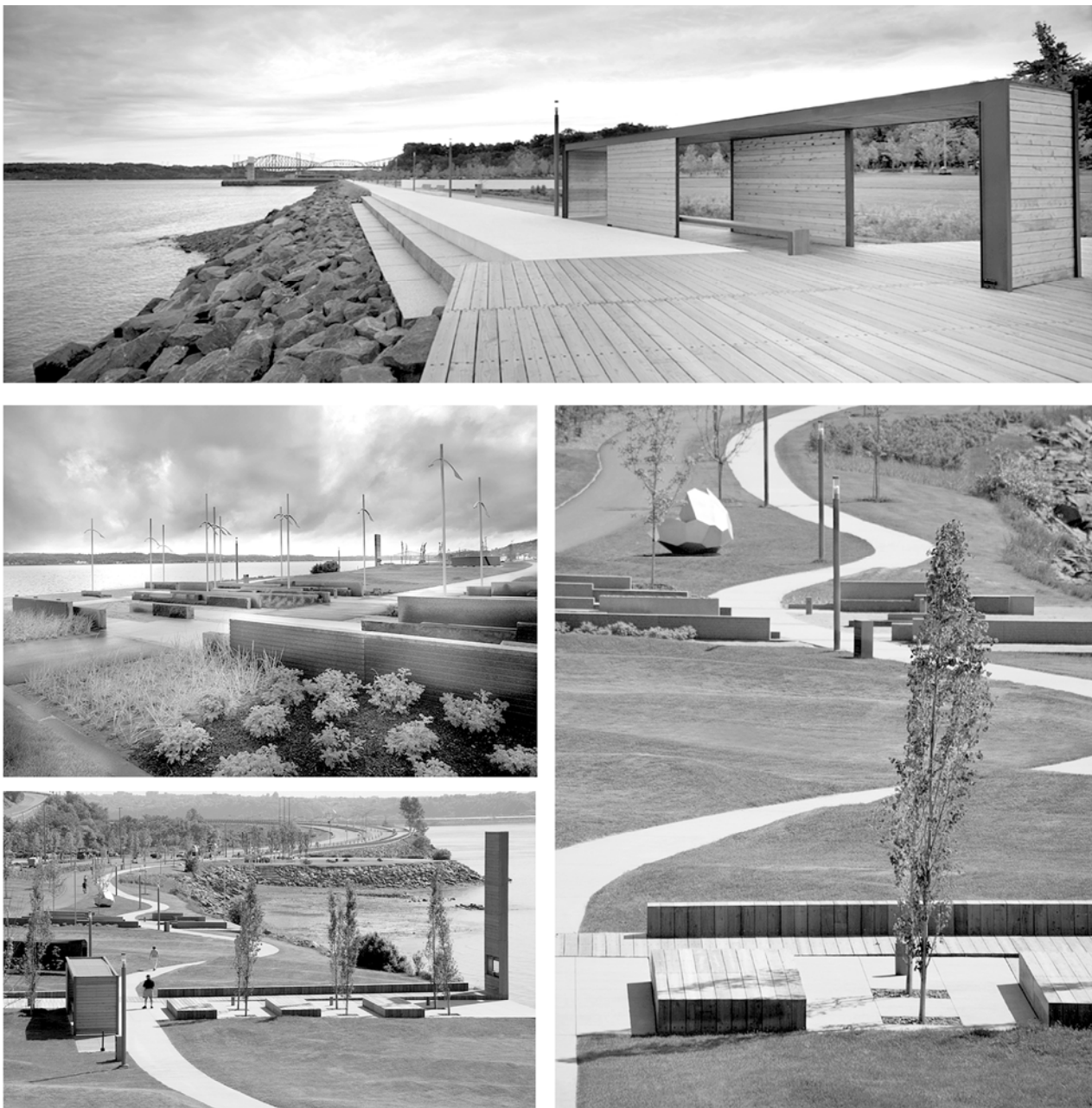


Fig. 2. Design SpaceCity waterfront, 2008.

Architect: ConsortiumDaoustLestage + WilliamsAsselinAckaoui. Quebec, Canada [8]

At this time, the architects give the definition of “visual communication” as a system of visual signs and graphic solutions. It has the task to solve the problem of orientation, regulation of human behavior in specific subject-spatial situations, providing a necessary light comfort and emotional mood in the environment. Visual communications include advertising, information boards, pictography, super graphics, font combinations, color zoning system, etc. So, the design of visual communications is emphasized to be at the turn of an industrial, graphic and environmental design [2, p. 25].

Visual communication of a city objective spatial environment organization solves the following problems of the urban environment:

- Improving human orientation in urban spatial structure of complex urban planning formations and thus providing human a psychological comfort of a human stay in an urban environment;
- Overcoming a language barrier in the large international community centers using a universal language of graphic icons;
- Forming a clear functional and spatial structure [3].
- Thus, during the organization of city spatial environment a certain synthesis of the design and urban planning tools was taking place. The facade architecture of the twentieth century was significantly impacted by the graphics and substantive industrial design as well. Moreover, this effect manifested itself in the two aspects:
 - the methodology of architectural formation;
 - art and composition solution of the urban facade architecture

The wide spread of new forms of substantive content of the spatial environment of the city, that is, sustainable outdoor furniture and equipment, and the use of composite design techniques have led to the fact that urban design objects were used as a kind of architectural detail of the city facade architecture. Various technical devices – the industrial design objects as well as the items of street furniture and visual communication are considered to be such details.

If technical progress and spread of a functional style in architectural forming led to the synthesis of industrial design and architecture, which is manifested in the use of technical devices – a product of industrial design, architectural facades in the composition of urban development, the popularity of architecture design method of “corporate identity” and “ensemblity” as a guiding principle of architectural design would lead to the use of elements and forms of outdoor furniture on the facades of buildings – a kind of synthesis of architecture design of the urban environment. It began to manifest itself in 1960 in the process of pedestrian streets and urban center areas management. In particular, in the nomenclature of the street lamps there appeared the ones intended for being installed on the facades. As a rule, they were designed in a “brand” style like the street stand lamps. Attached shop windows that together with remote storefronts and kiosks created the unique multi-objective set – ensemble appeared in the pedestrian streets [4, p. 5].

Just the pedestrian streets have established the qualitative criteria of a comfort perception of the urban environment, having become a kind of ideal urban space in 1960–1970's, which shouldn't be lower than the interior at its level. The outdoor furniture and equipment seemed to be a kind of interior space and pedestrian streets of the city and its substantive content. The phenomenon of pedestrian streets can be considered to be the first prototype of a modern “high-quality, comfortable space” of the city, built according to the principles of ergonomics and technical saturation.

In the late 1970's – early 1980's the projects of artistic and monumental decoration of the cities began to spread in the Soviet Union. Their authors understood the artistic and monumental decoration of the city as solving the complex of issues aimed at improving the ideological and political, architectural and artistic as well as functional and utilitarian content of spatial environment using a wide arsenal of tools of monumental and decorative art, architecture, landscaping and urban design [5]. According to the works of E. Shimko and M. Volkov it is necessary one should adhere to the following fundamental tenets of Urban Design to achieve a similar effect:

- The objects of the monumental architecture and decoration tools should create a single set of mutually complementing each other in spatial components of the city, forming a multi-level ideological and artistic as well as spatial system. Thus, all the issues of design and implementation of urban design elements should be considered on the basis of the place and role within the system.

- The organization of such single complexes depends on a general urban setting and the nature of city fragments that include them. At that, the objects of the monumental architecture and decoration tools perform not only the ideological and artistic, utilitarian and decorative functions, but they can substantially correct the architectural and aesthetic quality of urban environment due to their spatial characteristics (Fig. 3).
- The system of monumental architecture objects and decoration of cities should be considered in the process of its development not as separated, that is, in direct connection with the development of the city as a whole and its individual elements; its formation should promote the emergence of artistic and compositionally completed urban ensembles at all stages of city development [6].

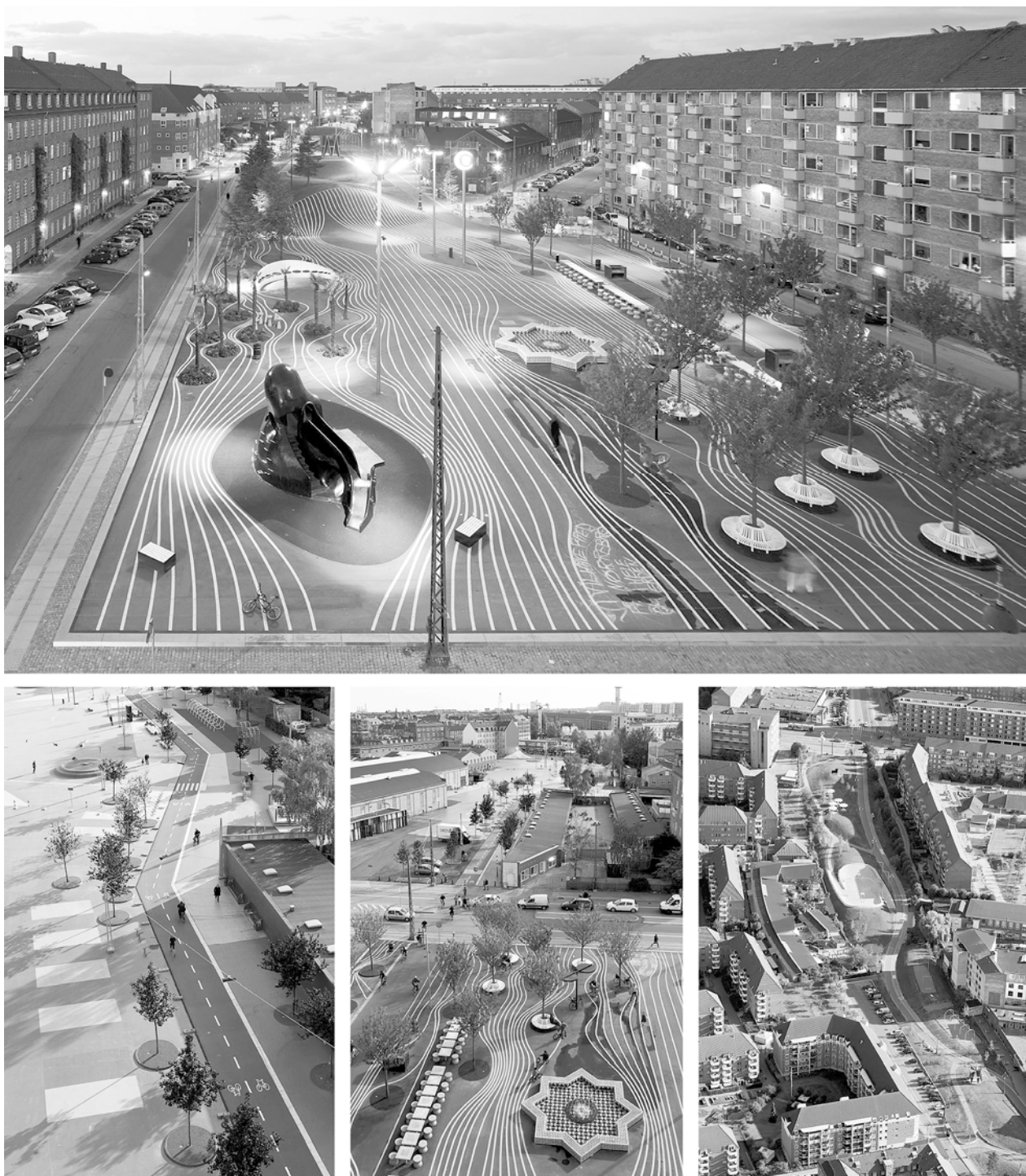


Fig. 3. Social rehabilitation of depressed regions in the project “Superkilen”, 2012.
Architect: Topotek 1 + BIG Architects + Superflex. Copenhagen, Denmark [9]

3. Result and Discussion

Urban design from a professional point of view should be considered as art design synthesis of architecture and urban planning. This synthesis is the organization of subject-spatial environment of the city at different levels – from the individual forms of subject filling the urban environment that creates an environment of architectural objects to the level of these spatial structures management and the city as a whole.

The design of the city as an independent design and artistic activity emerged in the second half of the twentieth century. It has a separate object of project activity and the arsenal of the research and design methods. At that, the architecture and urban design drew on such methods and features as ensemble character of general approach, the aspiration to unique solution of the composition, imagery and artistic expression. Urban Design includes the development of all components of the city, such as buildings, public spaces, streets, transportation and a landscape as well.

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Сергій Іванов-Костецький, Катерина Янчук

ЗАСОБИ МІСЬКОГО ДИЗАЙНУ: МАЛІ АРХІТЕКТУРНІ ФОРМИ

Анотація. Розглянуто передумови і основні функціональні засади засобів, за допомогою яких формується міський дизайн.

Ключові слова: міський дизайн, середовище міста, вуличні меблі, візуальна комунікація.

Vol. 1, No. 2, 2015

Adam Podhalański

**A SECELCTION OF CASE STUDIES REGARDING THE CHANGES
BROUGHT ON BY TOURIST TRAFFIC IN THE AREAS CONTAINING
EXAMPLES OF PRESERVED TIMBER ARCHITECTURAL HERITAGE
ON THE BORDER BETWEEN POLAND AND UKRAINE**

*Cracow University of Technology, Faculty of Architecture, Ph.D. student, Poland
podhall@gmail.com*

Received: December 08, 2015 / Revised: December 14, 2015 / Accepted: February 02, 2016

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Abstract. Carpathian tourist traffic has been developing in its various forms since the 1960's. At first it was unorganized, after the area of the Bieszczady Mountains became popular and the renewing of the interest in timber architectural monuments – it evolved from the setting up of boy and girl scout camps in the direction of qualified tourism. Cultural tourism became its final form. The tourist trails that have been set up, including a timber architecture trail, and the introduction of the preserved timber Eastern Orthodox churches onto the UNESCO World Heritage Site List were the causative factors in stimulating this change. Unique structures found their place as parts of the open air museums, while the museums themselves started to pursue new methods of exhibition and marketing in order to raise awareness of what they have to offer. Within the main cities of the micro-region, museums that provide good conditions for the exhibition of the most precious collections of paintings, icons, sculpture and effects of folk art, were set up. We can also observe a consequent revitalization of historical structures, performed under the watchful eye of the conservation authorities. The exhibition of the region's culture could be rounded out and become more dynamic with the introduction of the promotion of the domestic multi-cultural traditions which were so characteristic of the area of Galicja and its current borderland, especially concerning the culture of the Lemkos.

Key words: heritage tourism, Carpathians, Lemko

Motto: *“Travelers from the west, however, do not realize
how great the influence of Byzantine art and its
craftsmen was on European art”.*
(Cunningham, 2007)

1. Introduction

The south-eastern edge of Poland, this beautiful fragment of the Carpathian Mountains, a mountainous part of "God's world" is of great importance in terms of preserving the cultural heritage of our country. Within it, and especially in its landscape, we can observe a record of the beautiful and tragic history of the interaction that takes place on the borderlands of the East and the West, both in its immaterial and material sphere. This ages long friction, mixing and mutual rounding out of works of intellect, literature, poetry and music finds its expression in the unique material, spatial forms of buildings and structures: the civic, the temples, the synagogues, prayer houses, Eastern Orthodox and Catholic churches, cemeteries, ancient burial mounds and an entire wealth of archeological findings. Within the scope of large spatial forms, despite a great amount of destruction wrought upon by war after war, natural disasters and unfortunate coincidences, we can be thankful

for the survival of cities, villages, parks that surround palaces, manors and larger public buildings, as well as many smaller structures scattered around the countryside, such as roadside chapels, crosses, hermitages, caves and ruins. The latter are an important fixture of the area's landscape, constituting evidence of the relentless flow of time, the inevitability of the passage of time and a form of a signal to onlookers of the need to act in order to preserve the beauty of these relics of old. The entire landscape, the magnificent swaths of fields, themselves being witnesses to the development of human settlement in the Carpathian Mountains, the gradual conversion of forests to farmland and the gathering of wood in order to construct the beautiful forms of the buildings that serve their inhabitants, despite the fragility of the material itself (Szalęgin, 2003), that yet persist throughout the centuries, deserve respect. While making use of the wisdom that was passed down through tradition, beholding the beauty of the icons, we should continue this creative cultural dialogue that happens on the borders of cultures, ever so slightly different today, yet with the same roots at their respective beginnings.

2. Small townships as indirect targets of tourist traffic

The settlement structure of this part of the historical region of Galicja is based on a very practical module – it was the distance that one could travel by a horse-drawn cart, starting in the early morning, so that one could safely spend the night at one's destination and travel further the next morning. These distances vary depending on the local terrain, which would allow for faster or slower travel in order to facilitate the transport of goods and trading. The towns would hold a market, which existed and still exists as an interesting social phenomenon, which often showcases the great traditions of an area, somewhat alongside the necessary exchange of goods amongst society. Gradually, residential and public buildings like schools or town halls would be built, depending on the wealth of the inhabitants, and usually three types of temples: a Catholic and Eastern Orthodox church and a synagogue. At times there were more of them, for instance due to the presence of monasteries of both Christian denominations. These temples needed furnishing with items and works of art of religious significance, which inspired the local artists and craftsmen to create new and more and more beautiful paintings, icons and ritual accessories and general purpose items that were needed to perform mass. In light of the very wide trade contacts of the populace, goods of foreign origin were exchanged and purchased, often in the form of paintings, books or non-religious works of art that were often brought from far away travels or pilgrimages and were then deposited in private collections or given as gifts – to serve the wider population. A series of these occurrences over time caused some townships to be able to boast about impressive collections of works of art, not only paintings, but also sculptures or finely made musical instruments. The art that stemmed from the traditions of Judaism would often produce excellent examples of illuminated documents, pottery and other items need in synagogues, as well as many characteristic items of everyday use. Icons, the greatest of which would often be found at Eastern Orthodox churches, were often a fixture of the houses of ordinary people, the inhabitants of towns and villages. The buildings within the towns themselves, often made of wood, were replaced with brick ones over time, while their architectural form evolved to follow that of their timber predecessors. This amazing charm of small towns, with their simple and beautiful urban layouts, market squares, town halls and characteristic houses remains somewhat underappreciated, and, sadly, the shifts in the needs and lifestyle of their inhabitants produces an ever growing pressure to replace the old buildings with new, with completely different proportions, materials and architectural form. One cannot omit the destruction brought on by the many wars, which did not spare these settlements from destruction. All in all, one can observe an acceleration in the rate at which the substance of these towns is replaced, and with it, a shift is made in the quality of the landscape, not only in the case of urban interiors, but also in relation to the open landscape. The pervasive and, sadly, negative spreading out of buildings, caused by too intense urbanization causes the border between towns, their suburbia and the surrounding villages to become blurred. All in all, apart from a select few enclaves, travelling along the main routes of the region feels like driving through a constant town-village, devoid of sights worth seeing. Sadly, there are very few chances for the traveler to contemplate the silhouettes of cities that are finely intertwined into the surrounding landscape that were present there not so long ago, with churches and temples surrounded by trees, manors with their meticulously composed gardens and wide stretches of fields, houses with a horizontal composition, their roofs blending in with the greenery around them. Why is it so? The stoic would simply state that along with the growing globalization of the economy and the rising importance of large cities (Podhalański, 2013) and the changing times, conditions, cultural norms, levels of

wealth and the overall conditions in which society functions are to blame. All of this, however, does not justify the complete abandonment of the drive to build a harmony between the built environment and the landscape, the search for beauty in a simple spatial composition and the construction of spatial harmony. In similar conditions regarding society in other countries, all of this is possible today, all one needs to do to see it is to travel along the sun's path for a day. Perhaps in this situation of a general negation of the beauty of our everyday surroundings lies the cause of the need to travel to these isolated isles, to the borderlands? This borderland that is a place where one can still find the beauty of the landscape preserved in enclaves in which timber relics of olden times sit (Jarema, 1961), taking us back to the past through their works of art. Reality in relation to the needs of tourists causes the motorized ones, the number of which rises every year, is that without a way to find lodging near the place of their destination, they use the tourist services found in these small towns, in addition to visiting their museums and galleries. This allows these towns to become beneficiaries of this traffic, whilst the tourist destinations themselves are beyond their borders.

3. Timber architecture trails as a potential catalyst of the development of rural areas

One of the most valuable assets (Giemza, 2006) of the borderlands, aside from the beauty of their landscapes, is their timber architecture. This unique collection of monuments was, thankfully, acknowledged by UNESCO. Its UNESCO World Heritage Site List entry covers sixteen timber Eastern Orthodox churches, eight of which are in Poland and eight in Ukraine. The ones on Polish territory are: the church of St. Paraskeva in Radruż, the church of the Birth of The Holiest Mother of God in Chotyniec, the church of St. Michael the Archangel in Smolnik, the church of St. Michael the Archangel in Turzańsk (Subcarpathian Voivodship) and the church of St. Jacob the Younger Apostle in Powroźnik, as well as the church of the Care of the Mother of God in Owczary, the church of St. Paraskeva in Kwiaton, the church of St. Michael the Archangel in Brunary Wyżne (Małopolska Voivodship). The World Heritage List also includes, individually, six timber churches in Binarowa, Blizne, Dębno, Haczów, Lipnica Murowana and in Sękowa. The problem of the deterioration of these still preserved timber churches has long since been highlighted by cultural tourists, that travel along the trail of architects (Kurek, 2007), arts and the amateurs of timber architecture (Bocheński, 2002), who try to (often without any external funding) document these constantly deteriorating timber structures. Along with the wider and wider access to the Internet and the widespread use of mobile devices, these tools have become valuable assets of individual and group tourists, allowing them to plan their trips and access information in situations where it is not available to them on site. As a side effect, the authorities in charge of a given trail is given current and fresh opinions on the accessibility of buildings that can be visited, the quality of guide services and other information. While perusing the publications readily available on the web, one can come to the conclusion that the reality on the ground in the advertised area is not what it is advertised to be, with the situation that the building that one travelled very far to see is closed to visitors being quite common. Nevertheless, the idea of a trail for motorized tourists has become a very good idea in terms of promoting the various exhibits of timber architecture in their original locations that are far off the well traveled roads. It would be possible, with a little effort on behalf of the population that inhabits the immediate area of these monuments, to introduce some simple services for these tourists. This can come in the form of guide services in places where it is lacking, micro-gastronomy, the selling of local souvenirs – in other words, anything that a tourist meets in excess around far less worthy attractions that are advertised as great tourist attractions in, for example, the countries of the Mediterranean. Currently the existing open air museums attempt to attract more tourists by organizing various simple activities for children, exhibitions of weaving cloth or similar activities. Perhaps a cooperative or communal approach could ease the return to active use of these beautiful structures, which are often placed not that far away from each other and which cannot function without proper maintenance and can only deteriorate further. In towns that already have their own tourist trails – for hikers or cyclists, which can potentially increase the numbers of tourists, there exists a possibility of organizing small hostels in the fashion of the trail of St. Jacob, which generates the sprouting of many micro-businesses, which offer their services to persons that travel along the trail. It is imperative that attempts be made to support these types of initiatives, as the Strategy of the Subcarpathian Voivodship highlights tourism as one of the most important branches of economic development. Sadly, without actively supporting or at least promoting the idea of local micro-activities it is going to be very difficult to raise the level of participation and increasing the profits that local communities can benefit from due to various forms of tourism.

4. Historical monuments in the light of dynamic changes in the built and natural environment

When taking into account the fast-paced changes in the economy, as well as the expectations of local societies in regard to their surroundings, the problem of preserving timber architectural monuments becomes one of the most difficult. Not only is the basic substance – wood, which is the main structural component of the buildings in question highly susceptible to deterioration and destruction by fire, an even greater threat to it lies at the hands of an unprepared owner, or the lack thereof. A very important task in these circumstances is the quick preparing the documentation (Giemza 1997) of still existing timber buildings in the form of traditional measuring their extant state. The development of digital design tools allows us to use more advanced methods of documenting their state, with methods like laser scanning, aerial or drone-assisted ortho-photography, as well as photogrammetry, which is currently being used less and less. As a result of systematic endeavors to document the buildings, the possibility of repair or reconstruction exists even after a building has been destroyed in a fire. Reading specialist articles regarding the conservation of monuments (Kurek, 2007) one can often come across information that indicate the deliberate destruction of historical timber buildings, due to their incompatibility with modern functional and technical needs. Here are some bitter words from one of these articles (Czuba, 2007): “It seems that the word “monument” is taking on a pejorative connotation in recent times and does not bring about thoughts on tradition or history, but about trouble, difficulties and backwardness. We must do everything that we can so that everyone of us should fight against this false and dangerous attitude, which has caused so much trouble to the cause of the preservation of religious monuments – including the timber ones.” appear to describe the scale of the growing problem. It is important to take action in order to reverse this trend, which is dangerous to the future of historical timber monuments, and stems mostly from the insufficient funding of conservation authorities (Stojak, 2008). Their activity, out of necessity, focuses only on establishing prohibition orders, which only causes frustration, disgruntlement and resistance on behalf of the owners of historical buildings, who often do not have the financial means of improving the technical condition of their property, who at times resort to deliberate arson. Of course, in light of the natural causes of the gradual depletion of historical substance, we can observe the emergence of a new type of landscape, with a clear cut contrast between the construction materials that are used, the color schemes and architectural forms of modern buildings against the traditional values regarding space and the open landscape. In this context, it is not surprising that important buildings are being given special status, like the “timber Greek Orthodox church of Pokrov Mother of God from Milkisz Stary (XVII–XIX c.) which adapts traditional orthodox stylistic and structural solutions on the grounds of timber architecture, with its baroque grandiosity. It is probably the only preserved example of a timber Orthodox church in south-eastern Poland that was so greatly inspired by the brick church structures of the Baroque.” (Kadłuczka, 2006). Other currently existing items, such as some of the iconostases (Tomaszek, 2009) and their common, based on the art of painting icons (Jarema, 1961) – and this is not the only example prevalent in the area being written about – point to a potential that is hidden in the area, which has only partially been made available to the wider populace in contrast to just a narrow specialized group of tourists. One must assume that, despite some failures, the idea of preserving this sphere of cultural heritage is going to succeed. This idea is reinforced by the cultural diversity of the borderlands and the possibility of making it easier to get to know its history, as well as similarity of its traditions and the ability to understand its message. There arises a question, however – in what way, if at all, are we going to find a link in the problems that were mentioned above to the Carpathian Convention? It appears that such a link exists, yet it is not direct. We can assume, as it was pointed out earlier, that if the tourist cannot find lodging and food in the area in which the timber architectural monuments are located, the role of small towns grows, as they can provide these services and act as concentrators of tourist traffic. This has the additional benefit of concentrating tourist traffic in these small towns themselves, allowing the surrounding countryside to remain in a more natural state, preserving its environmental properties. It is also a means of providing a growth factor to the towns, as they are far more suited for the development of services than the immediate surroundings of the monuments that we aim to protect, which at the same time preserves their unique relationship with the surrounding landscape. We also cannot underestimate the fact, that the beauty and authenticity of works of art should be observed in places that were chosen by their creators, that nevertheless do change over time and are often not conducive to their preservation and security. These dangers make us more prone to place them in museums, which are, more often than not, in small towns.

B. Ideally, the laser scanning and photographic documentation should be performed on both the exterior and the interior of timber buildings, taking into account elements like polychromes and icons, as well as other furnishings and historically important ritual items.

C. Another course of action that needs to be taken is the introduction of fire protection installations in buildings that are listed in the central historical monuments registry, as well as all timber buildings, even those listed in the community historical monuments registries. Such a course of action can facilitate an increase in the chances of timber buildings being preserved for a longer period of time.

D. Only the preservation of timber architectural monuments “in situ” can result in the protection of the authenticity and uniqueness of the cultural landscape of the borderlands on a grander scale. The organization of open air museums is, however, a solution that cannot be ignored, due to the uncontrolled spread of the newly built environment and its negative impact on the landscape.

E. Efforts aimed at increasing the scope of services being provided to tourists and travelers in the small towns that are located on thematic trails of motorized tourism. An example of such a trail could a timber architectural trail. These efforts can become a chance to improve the economic development of the towns and the quality of services being provided at sites of interest.

F. By concentrating tourist traffic in the towns themselves, their surroundings have a much higher chance of retaining their biodiversity, the beauty of their landscapes and, finally, their authenticity.

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Адам Подгалянський

**ПІДБІР ТЕМАТИЧНИХ ДОСЛІДЖЕНЬ СТОСОВНО ЗМІН, ЗУМОВЛЕНИХ
ТУРИСТИЧНИМИ ПОТОКАМИ У РАЙОНАХ, ЩО МІСТЯТЬ ПРИКЛАДИ
ЗБЕРЕЖЕНОЇ ДЕРЕВ'ЯНОЇ АРХІТЕКТУРНОЇ СПАДЩИНИ,
НА ПРИКОРДОННІ МІЖ ПОЛЬЩЕЮ ТА УКРАЇНОЮ**

Анотація. *Карпатський туристичний трафік (Польщі) розвивається в різних формах, починаючи з 1960-х років. Спочатку – неорганізований, пізніше став популярним у районі Бецад і викликав оновлення інтересу до дерев'яних архітектурних пам'яток – туризм перетворився від організованих молодіжних таборів для хлопчиків і дівчат до кваліфікованого туризму. Культурний туризм став його остаточною формою. Створено туристичні стежки, зокрема слідами дерев'яної архітектури, а введення збережених дерев'яних православних церков до списку світової спадщини ЮНЕСКО спричинило стимулювання цих змін. Унікальні будівлі стали частиною музею під відкритим небом, водночас музеї самі почали застосовувати нові методи маркетингу та організовувати виставки для того, щоб підвищити обізнаність про те, що вони можуть запропонувати. У головних містах регіону, музеї забезпечили хороші умови для виставок найцінніших колекцій картин, ікон, скульптури й артефактів народного мистецтва. Таким чином, можна спостерігати послідовне поживлення історичних споруд, збереження яких було виконане під пильним оком влади. Експозиції культури регіону могли б бути цільнішими та динамічнішими зі запровадженням промування українських мультикультурних традицій, які були так характерні для регіону Галичини та його сьогоднішнього прикордоння, особливо щодо культури лемків.*

Ключові слова: *спадщина туризм, Карпати, лемки.*

Vol. 1, No. 2, 2015

Bohdan Posatskyy

TOWNSCAPE OF LVIV – PHASES OF DEVELOPMENT (the end of 18th – beginning 21th century)

*Lviv Polytechnic National University
12, Bandery str., 79013, Ukraine, posatsky@i.ua*

Received: December 08, 2015 / Revised: December 14, 2015 / Accepted: February 02, 2016

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Abstract. This article considers the evolution of the townscape of Lviv in connection with natural landscape, civil buildings and housing during the end of 18th – beginning 21th century.

Key words: city, townscape, city landscape, city plan, architectural ensemble, architectural image.

1. Introduction

In the end of XVIII c. to 1918 Lviv is the capital of Galicia and Lodomeria Province of Austrian-Hungarian Empire, from 1920 to september 1939 the center of Lvov Voivodship in Poland, from the end of 1939 to half 1941 under Soviet rule, from 1941 to 1944 under German Nazi rule and from the end of II World War is the industrial, transportation, cultural centre of West Ukraine (capital of Lviv region) in Soviet Union, from 1991 in independent Ukraine. This article aims to carry out an analysis of evolution of Lviv city image during the time (from the end of XVIII c. to beginning of XXI c.) of the city development and show distinctive features [1].

2. Basic Theory

At the end of the 18th century town landscape of Lviv was formed by the following constituent parts: complex of the medieval town, encircled by the double ring of fortifications, and the strip of suburbs around it. Among the suburban areas Pidzamche (Under the Castle) with the Old Rus urban territory at the foot of the High Castle occupied a special place. Town's outskirts had their own spatial dominants, as for example, Cracow suburb – had the St. George's Cathedral, Lychakiv suburb – the church of St. Antonius, which at the same time were important components of the general town landscape, as was already emphasized.

The abolishing of the Magdeburg Law in 1793 and dismantling of towns fortification walls in 1777–1820 became a turning point in the development of the town landscape of Lviv. Elimination of walls opened new opportunity for the spatial formation of the town, facilitated creation of a new urban centre. According to the European notion of that time, new centre of the town had to consist of a system of boulevards with planted trees and shrubbery, and built-up parade mansions [2].

3. Results and Discussion

In Lviv two fragments of a planned circular boulevard – Gubernatorsky (Governor's) and Hetmansky (Hetman's) Ramparts – were formed. Hetmansky Ramparts boulevard – today Freedom Avenue ("Prospekt Svobody") became the main street of the town. It consists of two thoroughfares and a wide pedestrian lane between them. The housing of the boulevard got a new scale due to the construction of the monumental

buildings of the Opera Theatre and the National Museum (former – the Museum of Arts and Crafts), banking and office and dwelling edifices houses. Architectural forms of the housing of the boulevard are marked by resplendence of sculptural details and are interesting examples of the eclectic architecture at the end of the 19th century in Lviv.

Erecting of the new boulevards aimed the formation of a new urban centre to the West of the medieval town territory. That is why building of the residence of the Galician Parliament, with the main facade facing the Ivan Franko park, also facilitated this process.

At the same time, the development of directions of historical trade routes, radially forking from the medieval core of the town, is continued. They are transformed into the main thoroughfares and are built-up with 3–5 – storey dwelling houses with shops on the groundfloors. Thus, the radial streets remain the main streets and are connected with a vast network of small minor streets – that is how the territory is divided into numerous urban blocks, which almost ring about the medieval middletown.

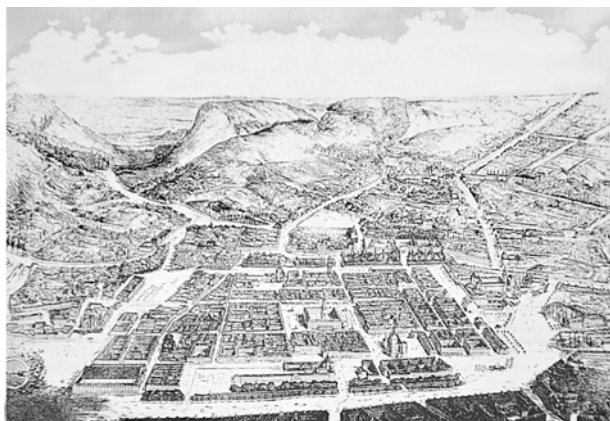


Fig. 1. General view of Lviv. According to K. Pillar. 1866



Fig. 2. View of Lviv. According to A. Lange. 1830-th



Fig. 3. Hetmansky Ramparts boulevard (Prospect Svobody, Freedom Avenue). According to K. Auer. 1830-th



Fig. 4. Prospect Svobody (Freedom Avenue)
(© Bohdan Posatskyy, 1999)

The townscape becomes homogenous due to the stylistic unity of housing at the cross of the 19th – 20th cc., caused by the forms of the Classicism, Eclecticism and Modernist style (Secession). The new Town Hall is being erected on the Rynok Square, with a massive tower (almost 60 – metre-high) which becomes a partner of the Renaissance and Baroque towers in the silhouette of the centre of the town [3].

Castle hill still commands the housing in the central part of the town, but there is no more the construction of the castle itself, after it was dismantled into a quarry [4].

In the middle of the 19th century a town park was laid out on the terraces at the foot of the High Castle. An artificial mound was spread on the upper terrace, top of which is crowned by a viewing platform (411 m high above the sea level), commands a scenic panorama of Lviv townscape.



Fig. 5. Holy Spirit Square.
According to A. Zaykovski. 1865

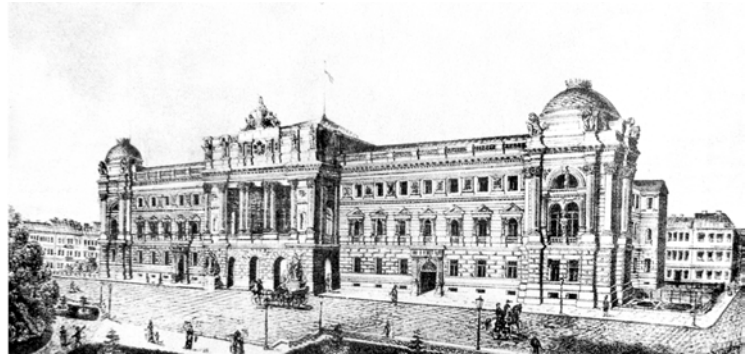


Fig. 6. Galician parliament. According to B. Chekhovich.
End of 19th c

Railway, its track and buildings became a new considerable element of Lviv landscape in the second part of the XIXth century. Railroad line between Crakow and Lviv was built in 1861 and this improved the development of the Western and Northern town areas. The complex of the Main Railway Station, the relic of engineering and artistic thought at the early 20th century was completed in 1903, it is the best structure in Lviv of the Art Nouveau epoch [5].

The first half of the 20th century hasn't brought significant changes in the town landscape of Lviv. In the centre of the town dwelling housing was going on, new small villa housing plots in the outlying districts of the town were created – New Lviv (“Novyy Lviv”) in the southern and the Professor’s Colony (“Profesorska Kolonia”) in the eastern parts. The eclectic and secession buildings were altered by the new forms of modern functionalistic architecture, influenced by the prevalent trends of European architecture of that time [6].

It can be noticed, that architectural forms of dwelling and public edifices of 1920s – 1930s are more mild their proportions and details are smaller in comparison with the “classics of functionalism” in Western Europe [7].



a



b

Fig. 7. Residential buildings in Saksahansky str. (a) and Kastelivka str. (b). 1930-years

The main radical approach to the development of the city was introduced in the reconstruction project, completed in 1943 during Nazi occupation in Crakow urban planning office.

Reconstructed street network was supposed to be the foundation of the new spatial organization of the city. The main radial streets in the center were the same, but they were connected by the inner southern boulevard semicircle, which consisted of the two roadway separated by a green stripe.

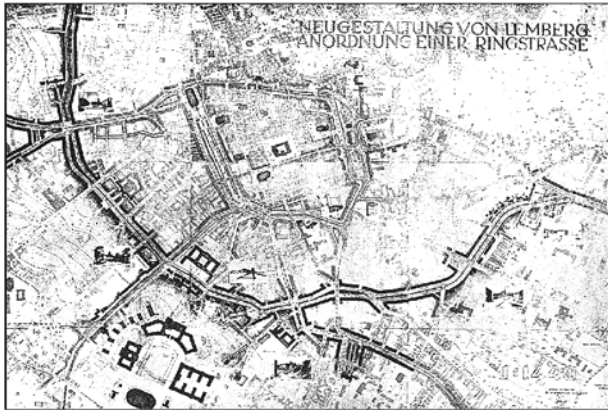


Fig. 8. Nazi project master plan of Lviv center
(© W. Hallbaver, 1943)



Fig. 9. General view of "city crown".
(© W. Hallbaver, 1943)

The project envisaged the formation of a new city government center on the Citadel hill, monumental complex of town planning was given the name "city crown" with the dominant role in the city silhouette, that should have demonstrated the supremacy of Nazi ideology. Concerning the urban aspect of the city center, project materials show that German planners anticipated two-centered system of the downtown and a radical change in architectural image of downtown [8].

After the reinclusion of Lviv to the USSR in July 1944, in 1945 Soviet authorities aimed at transformation of the city into the industrial centre. On the other hand, the main creative challenge of urban architecture was the formation of ensembles, that would symbolize the "socialism victorious walk" in their spatial forms of classical heritage.

From one side, in 1946 the soviet authors of Lviv's master plan understood the unique historical and architectural heritage of the city and offered to save it, from the other – it was necessary to transform the image of the city, making it alike typical Soviet style not only in essence but in form.

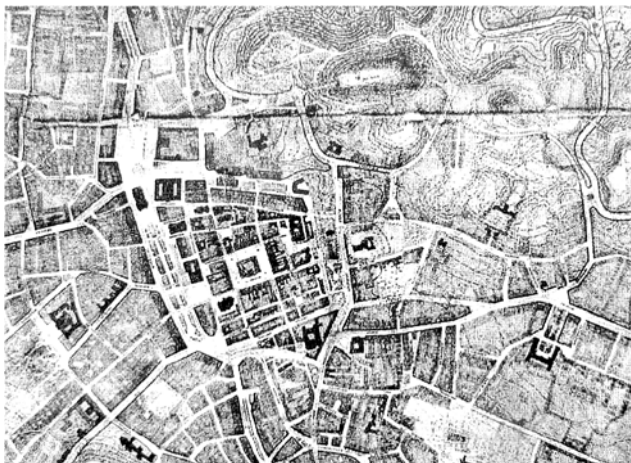


Fig. 10. Postwar soviet master plan of Lviv. Fragment. 1946.
(© Bohdan Cherkas, 1999)

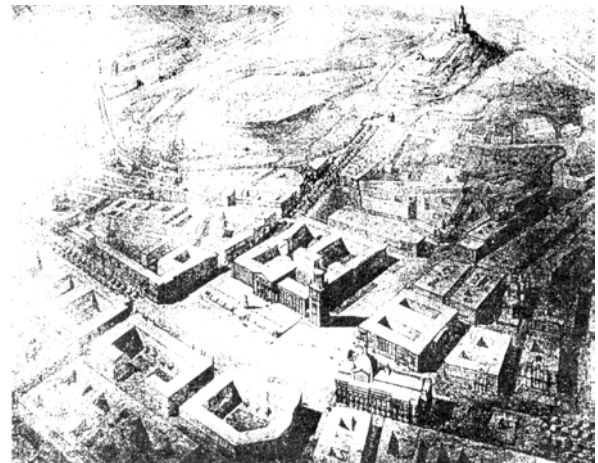


Fig. 11. General view of City center project. 1946–1948.
(© Bohdan Cherkas, 1999)

The central unit of the city, its core was supposed to be the new main square (one of the largest at that time in the USSR), located directly behind the Opera House and was to be connected by boulevard with barrow of High Castle. It was proposed to set a large statue of Lenin with total height of 50 m. Thus, "communist system of coordinates was canonized" in the city center [9]. Master plan of the city was considered in 1946 at the governmental level several times but ultimately it no approved and therefore it didn't became active town planning document. Residential and public buildings as well as the airport terminal were constructed.



Fig. 12. Residential building in Horodotska str. 1953.
(© Bohdan Posatsky, 1999)



Fig. 13. Lviv airport old terminal. 1955.
(© Bohdan Posatsky, 2014)

Radical real changes in Lviv townscape commenced in the end of 1950s. Since that time the dynamic development of the town began, and facilitated towns transformation into the largest industrial centre in Western Ukraine [10]. Development of industry demanded mastering of the new territories for industrial enterprises and residential blocks. First new industrial and dwelling sites emerged in 1950–1960s in the western sector of the town, and in 1970–1980's housing appeared on vast territories of the southern, northern and eastern sectors of the town.



Fig. 14. Panoramic view
of Southern Residential districts



Fig. 15. Panoramic view of Northern Residential districts
(© Bohdan Posatsky, 1997)

In the 1950–1980s apart from the industry (traditional branch of the soviet city economic activity), such branches as administrative management, culture, education, science were developing in Lviv. From the beginning of the 20th century Lviv was a well known centre of university education and science, that were represented in the city's space in large buildings. These functions were developed in 1970–1980, when ten state university educational establishments (70 thousand of students) were working in the city. To meet their needs the complexes of buildings of university education, scientific institutes (the new complexes of Lviv Polytechnic, Veterinary Academy, Academy of Arts, Institutes of researches of Academy of Sciences), students dormitories, sports grounds, etc. were built.



Fig. 16. Lviv Politechnic. Main building (a), new Students Library (b). (© Bohdan Posatskyy, 2014)

The new industrial and dwelling districts gained quite a new (much more larger than previous one) spatial scale of urban management and housing of the territory, determined by theory of the Soviet urban planning of that time [11]. The territory planning presupposed the very change of the urban form, traditional blocks were altered by “free” located separate buildings on the territory. Dwelling housing, at first, consisted of 5–9-storey buildings. In 1970s and during the 1980s the height of houses was risen to 12–15-floors. Thus, large dwelling sites with great number of multistorey buildings were formed [12].

The compact town housing of the first half of 20th century was changed by the new image of urban areas, that consisted a “separately located” edifices with vast spaces between them (yet the young trees were not high).

Two, almost independent, town scapes emerged coexisting on the town’s territory: historical and contemporary townscapes (i.e. of the second half of the 20th c.). Luckily the relief of the site allows to separate visually historical and contemporary town landscapes: historical town is situated in the amphitheatre of the Poltva river valley, and the new residential areas occupy the eminence of the plateau around the valley. The general aspect of the town landscape is easily seen from the viewing platform on the barrow of the High Castle. On the foreground the historical core of the town with rich silhouette is located, it is surrounded of tracts of verdure and just the background the rectangular shapes of the new housing are seen, these territories are several kilometres far from the centre.



Fig. 17. Lviv – Sykhiv residential district. General view (a), church of Nativity of the Holy Virgin (b). (© Bohdan Posatskyy, 2009)

The peculiar example of the new town landscape construction is Syhiv residential site (district) in the southern sector of the town, being constructed during the last two decades. Housing of this area got started in 1980s, and during the first several years consisted of groups of 9-storey buildings of the same type, located almost regularly on the territory. This residential territory occupies an area of 300 hectares between Zelena and Stryjska streets, former trade routes, stretching to the north-eastern and southern directions from Lviv.

During the first decade the dwelling houses of Syhiv consisted of 9-storey large panel construction apartment building, later on, after 1990s, requirements of a total typification were eliminated, and separate 12–15 storey houses of a tower-type gained momentum ; they were becoming spatial accents.

By 1991, architectural image of Syhiv was replenished by houses of religious worship – churches and chapels. First, they were built-up spontaneously, almost without architects. The largest new church in Lviv was constructed in the district centre of Syhiv after the design of Radoslav Zhuk. This church is must to become a spiritual and compositional centre of Syhiv area and must create new image of it [13].

Another new additions in central part of Lviv are several plomb houses in the surrounding of the 19th century house blocks. We can see this situation in very many streets in the 19th century part of town.

Lviv city authority and Lviv community employees of the Board of protection of historical environment at Lviv municipality. They have carried out great amount of work on the preparation of materials for including Lviv in the World Heritage List by UNESCO because the Lviv is “the only city in Ukraine that has completely preserved its Medieval planning scheme, peculiarities of urban building and greening. They represent practically all styles and trends of Central Europe urban form from the 13th to the 20th centuries” [14].

Restoring of economic freedom since 1991 on the one hand and collapse of large enterprises in Lviv (built after 1945) on the other led to the rapid development of the service sector and trade in the center of the city of Lviv. Function of service and trade back in the ground floors of houses, in summer many cafes occupied the outdoor area of old streets. Restoration of facades and interiors of historic buildings began by private owners of shops, cafes, bars, restaurants and other establishments.

Lviv traditionally belonged to the cities with developed financial activity and this after transformation in 1991 caused the construction of new buildings office centers and banks.



Fig. 18. UniCredit bank. 2001



Fig. 19. Taras Shevchenko monument. 1995

By this time, also debates were caused in 2001 concerning construction of the new building “UniCredit bank” (“Ukrsotsbank”) on the eastern side of the Mickiewicz Square, in place of removed buildings of the 19th century. Architectural forms of new buildings are aggressive and are in contrast with the surrounding architectural environment.

Few new monuments of the great ukrainians are the most significant elements of contemporary townscape of the city centre. One of it is the monument of the greatest Ukrainian poet Taras Shevchenko built in 1992–1995. To the left from the figure of poet is the Wave of National Revival, a high symbolic stele. This monument create the new image of main Lviv street – Svoboda (Freedom) Avenue.

In the beginning of 1990s, the territorial development of the residential and industrial areas within the town was almost stopped [15]. Instead, private single family house architecture in the suburban zone gained momentum, and in 1991–1997 a ring belt of two and three-storey houses, that embraced multistorey housing areas of 1960–1980s was created. Another change of the spatial scale of the housing of a territory took place, this time – by its sharp reduce [16].

At the end of 1990s town landscape of the periphery zone of Lviv's central part (at the border with the new dwelling quarters of multi-storey housing) was slightly changing. Construction of the 5–9 storey multi-compartment dwelling houses with flats equipped in and correspondense to contemporary European requirements was commenced in this zone. These houses were erected by private investors on separate free plots, mostly among extant 2–3-storey dwelling housing, that engirdled 3–4-storey dwelling quarters (dated to the cross of the 19–20th c.) in the centre of the town. Due to their height the new constructions created local spatial emphasis.

Peculiar feature of architectural image of these buildings is combination of forms of European Post-Modernism and regional Sub-Carpathian architecture. Houses posses slopping roofs, covered with roofings, facades are built of brick, covered with plaster, wood is applied as well as glass, metal and plastic material.

In September 2010 City Council approved the general plan of the city until 2025. Master Plan does not provide the substantial population growth in the city, but provides a slight increase in the city by joining lands suburban villages located near the suburban ring road [17].

A new master plan envisages further development of the city center core in the north (Chornovil avenue) and west (Horodotska street), and southern (Stryiska street) directions. The general mode of protection area, called “historical areas of the city.” In general, this area coincides with the central part of town, that territory, which was occupied by the city until 1939 and it is limited by rail grade crossings in a kind of quadrangle: Pidzamche station (in the north), the main railway station (in the west), Persenkivka station (in the south), Lychakiv station (in the east).

Interpretation of the polycentric system of the city center gained new emphasis in connection with the preparation of the city to host the European Cup in 2012. New terminal of Lviv airport is being reconstructed according to international standards, that is located in the city western part. Construction of new terminal alongside the existing airport building (built in 1955, according to a typical “soviet classic” project).



Fig. 20. Stadium “Lviv Arena”. 2012



Fig. 21. New airport terminal.
(© Bohdan Posatskyy, 2012)

Since the area to build a new stadium was chosen on the southern outskirts of the city near the intersection of the beltway and Stryiska street and near big shopping mall “Auchan”, it caused growing role of the southern sub-center. This sub-center in the general plan in 2010 provided mainly administrative function which should have developed, taking into account new social-economic and city planning preconditions.

In the early 21st century in Ukraine began the process for modifying the function of industrial areas. The former Soviet enterprises went bankrupt and their real estate was transferred to the new private owners.

These investors buy former business development centers and reconstructed them for their new purposes. Examples can be given as the factory of industrial valves, transformed into trade and exhibition center “Lemberg” on Bohdan Khmelnytsky Street and territory of the gas plant on Pid Dubom Street, where the large shopping mall and entertainment complex “Lviv Forum” was constructed etc.

4. Conclusion

In conclusion, we may state, that currently the city of Lviv has the following peculiar features.

Two, almost independent, townscapes emerged coexisting on the town's territory: historical and contemporary appearance (i.e. of the second half of the 20th c.). Luckily the relief of the site allows to separate visually historical and contemporary areas: historical town is situated in the amphitheatre of the Poltva river valley, and the new residential areas occupy the eminence of the plateau around the valley.

The central part of the town has preserved historic street network and urban fabric that create townscape, evolutionally formed during the 13th – first half of 20th cc.

Around the central historic part of the town, on the eminent plateau during the 1950–1990s quite a different type of the town area and townscape was formed. New urban areas were built-up mainly with multi-storey dwelling and industrial houses, radically increasing the spatial scale.

The training for Euro 2012 gave the new inspiration for spatial development of the Lviv. The main significant objects were located in the western and southern part of the city.

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- [3] The building of the new Town Hall, erected in 1835, is much more larger and massive than the previous one.
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- [11] Soviet urban planning and urban design standards determined strictly hierarchy of the territorial units in the town. Simultaneously the type of buildings was determined. In 1960–1970s only two main types of multifamily houses were generally applied: 5 and 9 storey.
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**МІСЬКИЙ ЛАНДШАФТ ЛЬВОВА – ЕТАПИ РОЗВИТКУ
(кінець XVIII – початок XXI ст.)**

Анотація. Розглянуто особливості еволюції міського краєвиду Львова в поєднанні з природним ландшафтом і комплексами громадської та житлової забудови впродовж XVIII – початку XXI ст.

Ключові слова: місто, міський краєвид, міський ландшафт, розпланування міста, архітектурний ансамбль, архітектурний образ

Vol. 1, No. 2, 2015

Olena Remizova

THE STRUCTURE OF THE ARCHITECTURAL LANGUAGE

*Kharkov National University of Civil Engineering and Architecture, 40,
Sumskaya str., Kharkiv, 61002, Ukraine, remizova.e@gmail.com, Olena Remizova*

Received: November 24, 2015 / Revised: December 16, 2015 / Accepted: February 02, 2016

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Abstract. The article is devoted to compositional language of architecture. A hypothesis is proposed that the architectural language has its own semantic, morphological and syntactic structures. A theoretical model of the language of architecture is offered.

Key words: architectural language, semantics, morphology, syntactic architectural language, compositional thinking.

1. Introduction

The issue of research of figurative art language is not new. The idea that architecture has its own language has long stopped being contested. Many authors write about the language of modern architecture, about the poetics of architectural language, the diversity of expression, the factuality of architectural language. However the language of architecture is rarely discussed. How is it arranged and how should it be used? Does it match our regular spoken (natural) language or is it some kind of special language? Maybe it's a scientific language or is it closer to literary or pictorial language? Has it always been as it is now or, if not, how has it changed?

2. Basic Theory Part

Before answering all these questions, let's clarify the relationship between natural and artistic languages. Thanks to the research by Ferdinand de Saussure, Charles Sanders Peirce, Michel Foucault, Y. Lotman, Umberto Eco and others, it is known that languages of different cultures and peoples differ in structure, vocabulary, grammar rules etc., although all languages have some common rules, system structure of language units. Spoken or literary language is commonly known as "natural language". Natural language has many qualities common for all languages, but it differs from artistic language of various arts (painting, architecture, cinema, ballet etc.). Any type of art can be regarded as a sign system, i.e. as a language, for example, language of cinema, sign language. The language of architecture, just like any other artistic language, has common systematic features with natural language, but it also has its own particular distinctions, related to the material being handled by the architect. Architectural language does not coincide neither with poetry language, nor painting language, nor other technical or scientific languages, although it has certain similar features.

One more clarification concerns verbal and morphological languages. The architect's language is rich and diverse. In general, two main languages of architecture must be distinguished. The first one is verbal language, i.e. language of professional terms, concepts, notions and categories. Conceptual language of architecture includes many concepts, such as form, function, tectonics, scale, proportion, symmetry, rhythm etc. They arrange the architect's thinking both in the project's development and in its "reading". Owing to it, the architect speaks to other professionals (theorists, practitioners, critics, associated professions). The second one is language of architectural shapes, i.e. special artistic language that allows to embody the idea and artistic intent in the material of the composition. This is the one that we will examine, but for this we will engage verbal language of professional terms and concepts. For example, order as a concept relates to the first one – verbal

language, and as an artistic shape – to the second one. As an artistic shape, order is an expressive architectural medium (informational, sign, decorative, symbolic, image-bearing). It is called upon to convey (transmit) a certain artistic content-text to the viewer. Hence, order turns into special language or sign system, comprehensible not only to the author, but also to the correspondent.

Thus, we will consider architectural language as an artistic sign system, developing together with the architecture as a profession.

3. Result and Discussion

Any language notions are studied by a special science – semiotics – general theory of sign systems, which is subdivided into three main sections: semantics studies the meaning of signs, syntactics studies the patterns of interconnection of signs into integral messages or texts and pragmatics studies the effect of signs upon the percipient. The definition of sections of semiotics has been given by Charles Sanders Peirce and Charles W. Morris. S. Hohlova [1, p. 102] writes that “sign operation (“semiosis”), according to Charles W. Morris, implies three senses: semantics, which studies “the relation of signs to objects”, syntactics, devoted to relations between signs, and pragmatics, interested in “the relations of signs to interpreters” [2, p. 47, 50].

However, it is not feasible to apply the notions of the sign systems theory to architecture in a literal way considering the particularities of architectural material. It is widely accepted that the material of architectural expression include spaces and masses, combined using various patterns of their arrangement into architectural shapes. In general it can be called morphology, which is essential for architecture. But morphology is not always considered to be a section of semiotics. Encyclopedias define morphology (Greek: μορφή – “shape” and λόγος – “doctrine”) as “a field of linguistics, the main subjects of which are words of natural languages and their significations (morphemes). ... The term “morphology” can also signify a part of language system (or “level” of language) – in particular the one that contains the rules of arrangement and understanding of words of a specific language. ... Morphology as a field of linguistics in this sense is a generalization of all particular morphologies of specific languages, in other words, an aggregate of information about all possible types of morphological rules. Morphology and syntax compose grammar... A number of linguistic concepts (generative especially) do not view morphology as a separate level of language” [3].

Since it’s extremely important for architecture to view object’s structure as an element of language, it’s necessary to introduce the morphological aspect along with semantics and syntax while formulating the definition of language for the area of architectural activity. On this basis, let’s put forward a hypothesis that architectural language has its own semantic, morphological and syntax structures.

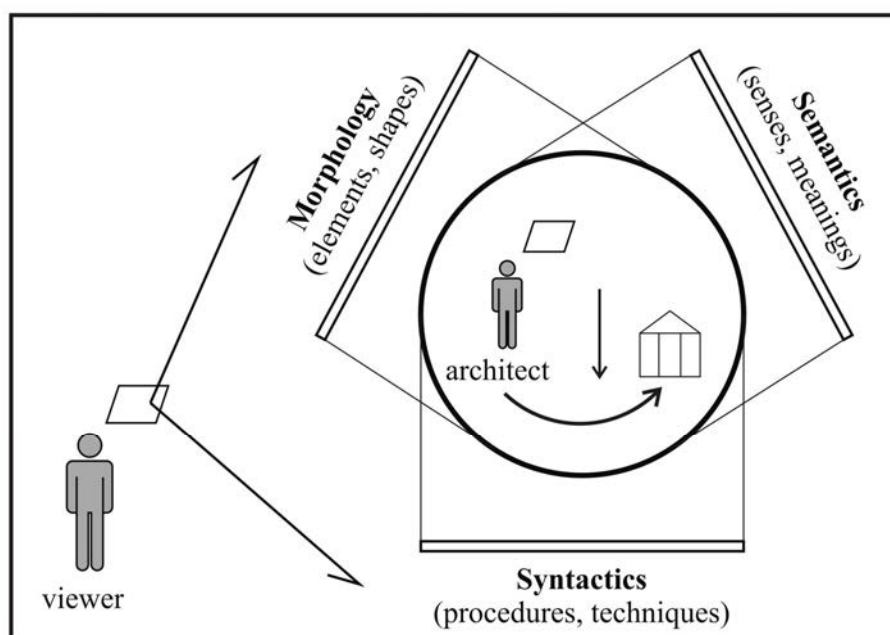


Fig. 1. Theoretical model of structure of architectural language

Let's describe architectural object as a result of professional activity. On this basis three main substantial dimensions can be differentiated, which we will set in the theoretical model of structure of architectural language (Fig. 1). The first aspect relates to the sense of architectural shape, the total of values that constitute the content of the piece of art – e.g. **semantics**. Guided by the experience of semiotics, we can confirm that artistic language of architecture is a sign system which connects the meaning and visual image. Combination of signs in a specific sequence or pattern forms a text or a message, which transmits or conveys some kind of meaning. Architectural shape is not meaningless despite its abstractiveness. It always has some kind of content “ciphred” in it.¹ Architectural shape can tell about social priorities, the owner of the building and his/her preferences, the functional purpose or construction principles of the building and much more. The substantial side of art and its reflection in the architectural shape in the architectural theory and professional literature had begun to be discussed only in the sixties of XX century with the coming of post-modern ideas.

The second aspect is **morphology**. Language system of architecture is arranged in a complex way. Like other languages, it has several levels of language units. Higher levels include units of lower levels. Lower levels include finished elementary units (for example, architectural mouldings, which compose order parts in certain combinations, which in turn compose whole compositions, such as colonnades, portals etc.). A number of language elements, connected in one way or another, form a certain unity and integrity. This way the morphological basis of architectural language is formed. It constructs the hierarchic structure of architectural vocabulary. Combination methods of such units correspond to grammar and syntax rules of regular language. Language units conform to certain syntax order rules and usually don't break them in the framework of a certain literary movement or style. Aggregation of language units by notional (semantic) characteristics forms the semantic field. A language of a certain style is uniform, i.e. it's a sign system, in which signs are connected both by morphological and syntax rules, which lets create artistically significant images.

Sign in architecture expresses artistic ideas. Like language sign, architectural sign is material and perfect at the same time, but instead of “acoustic image” it has a visual image, which signifies certain meaning, connected to the idea of the piece of art.

Architectural signs have their particular features:

1. Sign has a meaning attached to it by the system in which it is being used; the meaning depends on the type of professional activity and cultural context in which the signs lie; A. Ikonnikov emphasized that “signs” that compose the language of architecture vary greatly, even though they have invariable features that secure their connection with the meaning” [5, p. 103].

2. The same signs can change their meaning depending on the system (context) in which they are being used; i.e. the same sign can mean different things depending on the situation in which it is being used. For example, order shapes in the architecture of ancient Rome and baroque style meant different things;²

- it can be said that architectural signs can be monosemantic and polysemantic. The monosemantic ones belong to one culture and the polysemantic ones are used by different cultures [6].
- architectural signs have the tendency to perfect or change their morphology.

¹ Thus, while discussing the connection between the shape and its meaning, V. Sidorenko says that “the approval of shapes, techniques and methods as socially significant calls for symbolization of the appropriate object shapes and composition methods. This is why object shape possesses a certain symbolic significance and esthetic value within the framework of the culture in question. And the practical and in the wide sense social-cultural expediency of the subject shape in question usually serves as the primary and essential condition of its gaining of symbolic value” [4, p. 1].

² A. Ikonnikov, while emphasizing the attention on the shape, called this sign feature “an instability”. He wrote that “taking the instability of “signs”, architects varied their shapes even in the limits of established artistic systems according to the piece of art's structure on the whole (let's remember Vignola, who never reproduced his own canon in specific buildings). Hence, unlike natural language, architectural language is composed out of signs, whose shape can be varied, and the meaning leaves room for interpretation, which depends on the percipient individual, his/her personality features and perception” [5, p. 104]. A. Ikonnikov himself, while discussing the multi-purpose of order system in another text, called this phenomenon “mobility of meanings of architectural order”. As an illustration he cites such reasoning: “For the humanist age of Italian Renaissance order symbolized traditions and the spirit of antiquity; in France of the time of Louis XV it was related to expression of absolutist ideas. After the war of 1812-th thinking strata of Russian nobility saw the language of strengthening of “eternal” ethical values, civicism and human dignity in classicism architecture. A few decades later, after the Decemberists' tragedy had shown the utopian nature of hopes of establishing of order corresponding to “human nature”, the former ideal started to be perceived as a formal casern strait-jacket, imposed on the social taste. In various cultural contexts physically identical elements found different meanings, being included in different association chains” [5, p. 108].

This way, order shapes of Ancient Greece were simplified and perfected in Ancient Rome. In the framework of one historical age they also change from simple and rough shapes into more complex and perfect ones. For example, the system of flying buttresses, counterforts and nervures in roman and gothic architecture.

The third aspect concerns the operational system of professional activity, i.e. syntactics of architectural language. The procedures of compositional work, rules of artistic construction, methods and techniques of working with space and shape etc. compose the syntax of architectural art. For example, proportioning, symmetric and rhythmic actions, rules of order composition help us assemble shapes into something integral, divide and transform an architectural body until we get the desired result.

Architectural grammar is a complex of rules of a language (style, age), which governs (defines) the accuracy of formation of architectural signs into certain combinations (words, texts). For example, the combination of elements of the Corinthian order into the shape of portal allows to give the facade of the building the effect of solemnity, respectability, pomposity.

The main fields of grammar are morphology and syntax, like in natural languages. Architectural morphology is a set of rules of formation of primary semantic units (words) from small units (alignment of belts in a part of the order) and rules of shape formation into meaningful combinations (of portals, arcades, porticoes), and architectural syntax is a set of rules and techniques of formation of integral combinations – facades, ensembles etc. (word expressions).

It can be affirmed that systemic features of the corresponding language can be distinguished in the framework of an integral historical period, called age.

Traditional for XX architecture criticism text mainly deals with description of the shape of the architectural object, i.e. its morphology. Morphological description fixes the objective side of the piece of art. It uses such data about the object that does not depend on our feelings nor our cultural experience. This includes its dimensions, geometry of its shape, its ruggedness, texture, color and other data, which we get empirically. Such words as archetype, rhythm, meter, tectonics etc. are often used. All these are morphological features of a piece of art. However such description cannot claim to be a full description of an object.

The fourth one – external toward the listed three aspects is pragmatics, which follows the way the piece of art is being perceived, but it's a topic for a separate study.

Thus, it can be concluded that architectural language embodies a system of sign architectural shapes, which can convey various senses and contents by applying compositional techniques and patterns of arrangement and combination of these shapes, i.e. architectural language possesses its own semantic, morphological and syntax structures. It reflects on the theoretical model of architectural language structure in three dimensions (mirrors), each of which fixes its own aspect (Fig. 1).

A well-known architectural theoretician A. Rappaport claims that by viewing architectural language we can compare “scaled levels of architectural units with levels of language units. Elements of architectural shape correspond here to phonemes, sounds, the shapes themselves corresponds to words, vocabulary, and the pieces of art correspond to phrases and texts” [7, p. 72]. But it's only an analogy, there is no literal correspondence. The same idea is stated by Charles Jencks in his book “The Language of Post-Modern Architecture”: “Architecture and language have various kinds of analogies, and if we handle terms loosely, we can talk about architectural “words”, “phrases”, “syntax” and “semantics” [8, p. 42].

Every language follows its own patterns of letters combination into words, words into phrases, phrases into texts etc. In architecture we observe similar occurrences: ancient Greek order is put together out of certain elements (base, body, chapter...) in a certain order, colonnades and arcades have their own rules of construction; gothic language uses such elements as flying buttresses, counterforts, ribbed vaults etc., which combine in a special way. Each age develops its own rules of working with elementary shapes, their transformation and combining into more complex formations. At the same time these rules retain their stability over the course of the whole age. Such normative organization of language allows it to develop. “Without constant vocabulary compiling, speech culture criticism, regulation and proper word usage – A. Rappaport claims – language and writing could not exist and develop. In architecture though such normative work has fallen into an area of certain neglect, which is – at least, in part – is the reason of degradation of architectural culture and depletion of architectural shapes” [7, p. 72].

But it cannot be said that such work has not been conducted. Well-known treatises on renaissance and classicism orders (Giacomo Barozzi da Vignola, A. Palladio, V. Scamozzi, S. Serlio, G. Blum, F. Blondel, A. C. Daviler et al.), Johann David Steingruber's "Architectural alphabet", published in 1773 and Antonio Basoli's "Pictorial alphabet", published in 1839 in the *Alfabeto Pittorico* book [10], shape catalogues of historic styles of eclectic age (J. N. L. Durand, J.-B. Rondelet and others) [11–12], morphology experiments by N. Ladovsky, K. Malevich, Y. Chernikhov and their successors-deconstructivists Richard Meier and Peter Eisenman, "Architecture lessons" by R. Krier [13], directed at defining the modern vocabulary of architectural shapes – all of this is selection work, conducted with architectural language. This kind of works, including "technical study on artistic shape" was called architectural poetics by A. Rappaport. Thus, polishing of language abilities and perfection of its shapes is interpreted as poetic art, which is capable of creating masterpieces.

A detailed analysis of the concept of poetics in architecture is given by the authors of the book "Composition theory as architecture poetics". Specifically, I. Dobritsyna writes: "The term poetics originates from the Greek word ποιηίν (do/make) and the most precise meaning of the concept is broader and is based on the notion of poetics as a philosophical basis of aesthetics. ... Poetics is the set of principles and rules that the architect develops in his/her work, deliberately or naturally, like any other artist, the techniques and methods, which are being used to submit his/her internal monologue to people's judgment. Poetics is also the principles and rules, methods and techniques to which a certain art school sticks to. From the point of view of a critic of architecture, poetics is his perceived artistic peculiarities exhibited by a particular author, school, a whole age. The peculiarities of poetics, which define the features of a whole age, clear up with analysis of multiple particular manifestations and in theoretic correlation with the spirit of the age, but, usually, after the laps of a certain historic period, needed for the fixing of unique features. These features become more apparent in notable turns to new artistic aspirations and become easier to identify compared to the poetics of other historic ages" [14, p. 362].

Agreeing on the whole with the expressed point of view, we can use the concept of poetics as a comprehensive concept. However it requires elaboration and correlation with the notion of artistic (compositional) logic in architectural creative work. At the same time it is important to emphasize that the notion about the mode of compositional thinking, which defines the nature of artistic work of a certain age, was introduced as far back as in 1987. The concept of "recomposition" was also introduced³ [15], which explains the reasons and ways of transition from one type of thinking to another, which I. Dobritsyna calls "turns to new historic aspirations". Such wording, however, does not seem to be sufficiently precise. Let's emphasize that the concept of artistic logic (including thinking modes) is an essential part of the concept of method of artistic work, which requires a steady unity of various complementary thinking techniques, which allows to express the distinctive senses of the age, school or the author in persistently repeatable shapes. The artistic logic of the age defines the features and the nature of its language of expression.

The semantics of architecture correlates with architectural subject, which began to be discussed by post-modernists in the beginning of the XX century and the concept of function, which was a talking point of functionalists in the beginning of the XX century. Architectural subjects also include such functional aspects as various processes of life activity or cult scenarios (liturgical activities), which require their own spatial design. Sense or symbolic aspects also include all tectonic notions which allegorically tell the viewer about the object's structure, statics, dynamics, construction's straining etc. For example, V. Markuson claimed that "tectonics and the range of related tectonic notions are what constitutes the semantic basis of architectural artistic-expressive language" [16, p. 44]⁴.

3. Conclusions

Thus, it can be conceived as proven that architecture can be viewed as a sign system. To avoid terminological confusion it is preferable to speak of semantics, morphology, and syntax of architectural language, avoiding when possible any terminology borrowed from related branches of science.

³ "The process of recomposition or change of compositional thinking mode, resulting from radical alterations in the method of social production entails radical reorganization of the system of professional notions, and also the methods and techniques of their application in design practice, theory and education" [15].

⁴ A. Ikonnikov drew "attention to the peculiar feature, noted by V. Markuson: "building elements" – unlike words of natural language – never exist separately, in some "lexical" form, but always in the definitive reality of context in question". Signs of architectural language aren't "read" consecutively, but are perceived simultaneously, in the system of shapes of a piece of architecture, and the meaning they carry, depends on the system's connections [5, p. 103].

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Олена Ремізова

ПОБУДОВА АРХІТЕКТУРНОЇ МОВИ

***Анотація:** Досліджено композиційну мову архітектури. Висунуто гіпотезу про те, що архітектурна мова має власну семантичну, морфологічну та синтаксичну структури. Запропоновано теоретичну модель побудови мови архітектури.*

***Ключові слова:** мова архітектури, семантика, морфологія, синтактика архітектурної мови, композиційне мислення.*

Переклад: Игорь Пужай \ Igor Puzhay.

Vol. 1, No. 2, 2015

Michal Uruszczak

THE PALACE AND GARDEN COMPLEX IN WŁODOWICE. PROSPECTS FOR RESTORATION AGAINST OTHER TOURIST ATTRACTIONS OF THE KRAKOW-CZESTOCHOWA JURA

University of Agriculture in Krakow aleja Adama Mickiewicza 21, Krakow, Poland

Received: November 24, 2015 / Revised: December 16, 2015 / Accepted: February 02, 2016

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Abstract. The article analyses potential restoration of a historic park and palace complex in Włodowice. It discusses the pragmatics of preservation in conservation practice. Furthermore, the author suggests possible courses of action designed to bring clarity to the original layout of the complex and popularize the commune as a tourist attraction.

Key words: preservation, restoration, cultural landscape

1. Introduction

Historical family residences, castles, palaces and manors with their immediate surroundings and other distinct cultural elements contribute to shape cultural landscapes of urban areas, small towns or suburbs of major cities. In the 20th century, the gradual and balanced development of all of them, both in aesthetical and social terms, was suddenly interrupted. War activities caused huge devastation in that respect; further damage was the result of the 1944 Polish land reform [2]¹. Often left “at the mercy” of local decision-makers, converted into public institutions or storages, they fell into disrepair in a short time.

Currently, in the second decade of the 21st century, after Poland has regained full independence, it is witnessing of gradual globalization process in our country. This phenomenon can be experienced every day, for example by observing the association of retail outlets, services or restaurants into large networks. The retail is created even in very small towns or villages. Competitiveness of territorial units takes on a new important meaning. It is mainly conditioned by landscape, enriched by historical objects. However, these require constant protection and preservation. Failing that, they must be brought to the state which on the one hand makes it possible to use them and on the other hand confirms the elementary principle of conservation treatment summed up as: *above all, do not harm* [6]².

2. Aim of the study

It is assumed that residence and garden complexes should have a permanent user. Unused buildings deteriorate and are subject to destruction, whilst parks undergo natural secondary succession. When creating a restoration project for particular objects, it is therefore necessary to define the scope of activities and functions that will be feasible and will not harm the complex.

The presented studies will generally illustrate and define the overall condition of the park and palace in Włodowice (village in the Krakow-Czestochowa Jura), which will help to define further research and project activities. This study is especially important for Włodowice as the whole complex is currently in deplorable condition.

¹ Brzoza C. *Reforma rolna w województwie krakowskim (1945–1948)* PAN, Wrocław–Warszawa–Kraków–Gdańsk–Łódź 1988.

² Pawłowska K. *Przeciwdziałanie konfliktom wokół ochrony i kształtowania krajobrazu. Partycypacja społeczna, debata publiczna, negocjacje*, Wydawnictwo Politechniki Krakowskiej, Kraków 2008, p. 28–32.

3. Methodology of introductory research

Restoration of historical complexes and selection of appropriate solutions in the case of Włodowice. In research methodology, studies leading to the implementation of a restoration plan begin with the definition of the so-called resource. It is, in fact, the action of defining the origin, age and initial appearance of the object as well as its subsequent changes.

The restoration itself, which is the final phase of activities, is described by Bogdanowski as the specialization which developed as a result of progressive degradation and destruction of historical complexes in the second half of the 20th century [1]³.

The preliminary visual examination, study of old maps and related literature show that the park has been an integral part of the studied complex in Włodowice from the very beginning and together with the palace it has created a spatial whole. Particular attention should be drawn to its compositional layout on the slope. It takes advantage of the interesting natural terrain relief consisting of the upper level with the palace and the slope of a Jurassic stone escarpment falling towards the south west. A similar use of the slope in the palace garden can be observed in other similar complexes situated in close proximity to Włodowice, such as Choroń, commune of Żarki [4]⁴.

The chronology of the complex as well as the analysis of the 1853 layout with characteristic proportions allows us to regard this monument as a representative of *entre cour et jardin* [5]⁵.

The post-war period was not merciful to the complex in Włodowice, just as for many similar objects across the country. Sometimes local decision-makers led to (planned) destruction or allowed for significant transformations of former aristocratic residences. On the other hand, it was often the case that the proposed modifications of old forms supposed to restore the objects were developed without proper understanding of their actual form. This could have depleted the original styling and create variants or rather style parodies. It is for these reasons that the doctrines of monument preservation rather discourage measures leading to counterfeiting knowledge about former monuments of architecture. This purist philosophy, sometimes stemming from the lack of sufficient knowledge about the original appearance of the building, makes it impossible to restore ruins. They need to be left as they are, to be a so-called “permanent ruin”, meant for sightseeing [3]⁶.

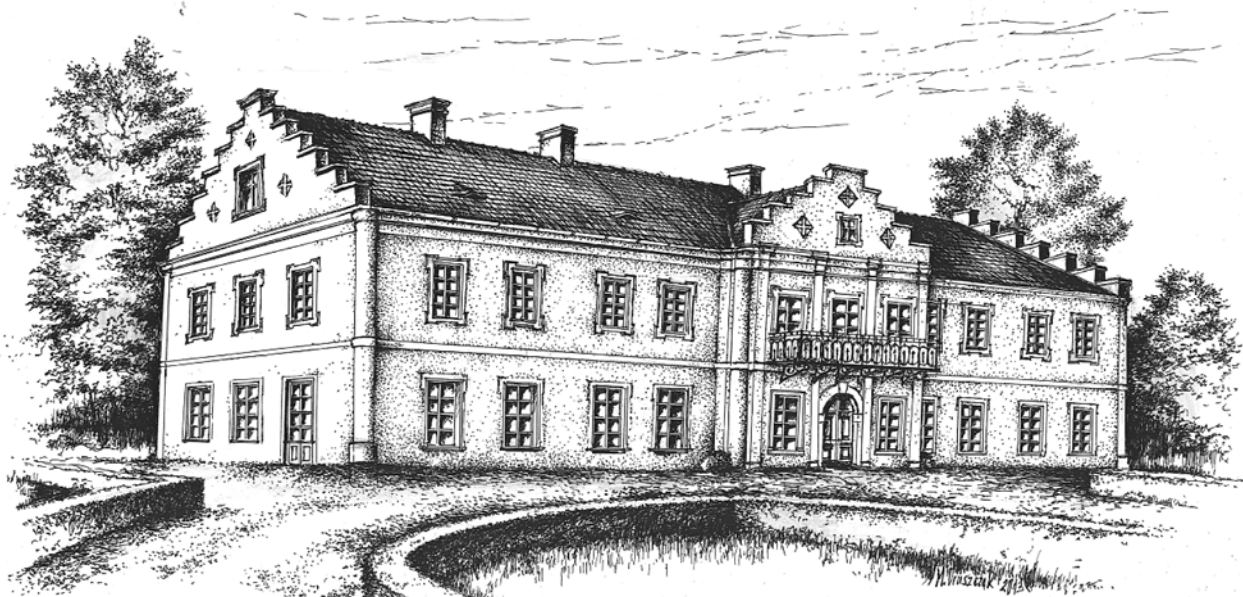


Fig 1. Drawing of the palace

³ Bogdanowski J. *Style, kompozycja i rewaloryzacja w polskiej sztuce ogrodowej* [In:] *Wiadomości Botaniczne* 36 (3/4) 1992. – P. 15.

⁴ Kowalewski L. *Przyroda parków pałacowych, dworskich i miejskich na obszarze woj. Częstochowskiego*, Częstochowa 1990. – S. 41–42.

⁵ Muc A. *Zespół pałacowo-parkowy we Włodowicach* [In:] *Wiadomości konserwatorskie województwa śląskiego*. – Vol. 3, Śląski Wojewódzki Konserwator Zabytków-Śląskie Centrum dziedzictwa kulturowego, Katowice 2011. – P. 217–218.

⁶ Gruszecki A. *Konserwacja ruin w Anglii* [w:] *Ochrona zabytków*, 1958, No. 3. – P. 233.

After the fire in 1956, the complex in Wlodowice was enlisted in the monument register, which was supposed to save it from destruction. Restoration activities were supposed to include the palace with outbuildings and the park. These “activities” were so “successful” that in 1989 the palace was removed from the monument register, due to very poor technical condition. The evaluation conducted at that time revealed that the weathering of the walls could be up to 30 cm and the cracks were very numerous⁷. 21 years later, the already non-existent (!) palace outbuildings were also removed from the register. At the moment, the only object under formal protection is the park, which is in deplorable condition just as the palace.

The palace is in the form of ruins with preserved front wall and several rooms on the ground floor. They are all completely demolished, flooded by water and covered with vegetation, which is a serious threat to the ruins. Roots are disintegrating uncovered walls, deteriorating their condition. The fires have completely destroyed wood elements. What can be only seen now are the places they were originally embedded. Out of the four chimneys, two have survived to this day but their top parts have fallen apart. Cast-iron railing on the front wall of the building is the last surviving trace of the old balcony.

As already mentioned, the palace outbuildings have already vanished. A similar thing happened to former inventory buildings, stable, main farm building, barn, and wine cellar.

The park is densely overgrown with self-seeding trees and shrubs. It is impossible to recognize its former terrace layout at first glance or different garden styles.

4. Study results for the park, vegetation inventory

Since there are no maps showing the original layout of vegetation in the park in Wlodowice, it was necessary to prepare a general description of the local flora together with a list of species of trees and bushes growing there.

The park surrounds the palace and it was probably established at the same time as the original palace was built. Both are dated back to the 18th century, which leads to the conclusion that the oldest trees in the park are approximately 250–300 years old.

It is difficult to point out a dominating tree species, yet the majority of them are deciduous trees. There are a number of trees typical for historic parks, such as maples, lindens, hornbeams and ashes. These are located closer to the palace, whilst in the lower part of it, fruit trees can be also found: apple, pear and plum trees⁸.

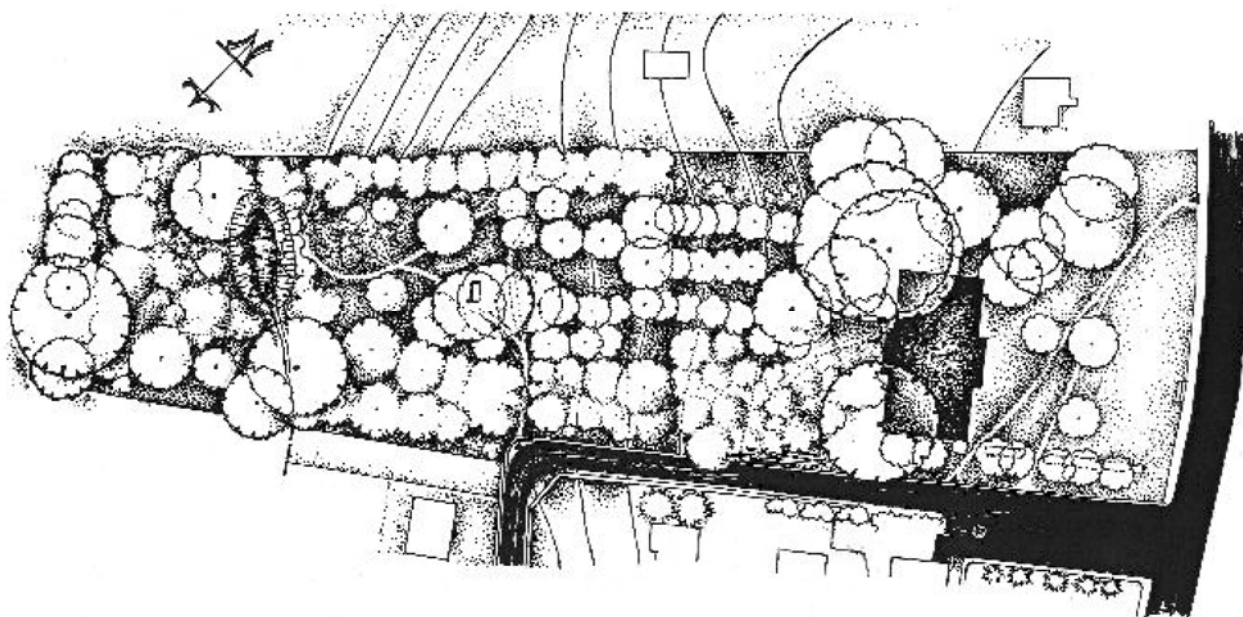


Fig 2. Vegetation scheme of the park

⁷ Muc A. op.cit. – P. 211.

⁸ Kowalewski L. op.cit. – P. 86–87.

The bush layer is represented by jasmines, lilacs, hazels and forsythias. They grow mainly in groups, but are also scattered around the park as a result of chaotic self-seeding. The existence of original hedgerows can be confirmed by the presence of privet. We can assume that the park had flower hedgings. The remnants of hornbeam rows suggest that the park had bosquets [7]⁹.

The current stand of the park not only confirms the fact that the whole object was carefully planned in terms of composition, the choice of tree and bush species was not random as well.

However, without being properly taken care of, the plants almost completely “took control of the park” so that it is sometimes difficult to penetrate the thicket of trees and bushes. This is best seen within several meters from the palace and in the water reservoir situated slightly below the palace. The reservoir is completely shadowed as a result of the expansion of self-seeding vegetation.

5. Conclusions with regards to monument preservation and landscape shaping

Whether or not the palace ruins in Włodowice survive and can be made available to potential visitors depends on undertaking necessary conservation treatment. This, however, cannot interfere with the picturesque landscape; thus all works need to be visually unobtrusive. The necessary works can be divided into four groups, starting from the most essential ones:

1) Structural protection together with supports for slanted walls and vaults. Possibly in some cases, it may be necessary to rebuild the latter.

2) Maintenance of the crenellation, by protecting it against water penetration and filling all cavities to prevent water accumulation. It will be often necessary to rebuild 1–3 layers of bricks in order to introduce horizontal insulation.

3) Restoration of the external face of the wall by repairing joints, filling in deeper cavities and reinforcing the structure. It all requires great care with regards to the final visual result.

4) Implementation of a drainage system, which will increase the stability of the ruins. Rainfall, low temperatures and lying snow have been mainly responsible for wall devastation. Therefore, properly designed drainage with correct gradients and rainwater channelling will slow down the destruction processes.

Further activities include the implementation of an exposition programme so that the complex can fulfil the role of a tourist attraction. To ensure that this function is successful the programme should include the following elements:

1) Properly designed walking paths within the complex. This would make it possible to see only the most interesting ruins and appreciate the surrounding landscape from selected viewpoints.

2) The creation of exposition points and the mentioned viewpoints with particular attention to primordial views of Jura areas, which was planned by former designers of the complex.

3) Making the ruins more “understandable” to the visitors by installing names (descriptions) of selected areas and rooms. Creation of reconstruction boards presenting the palace. To ensure successful “advertising” of the object, it may be useful to create information brochures available in the local council office.

6. Conclusion

For centuries, the palace and park complex in Włodowice has been a stable element of the surrounding Jura landscape and also a precious aristocratic landmark. After suitable restoration, it can surely become an element that would increase the attractiveness and competitiveness of the Włodowice commune against and other territorial units in the area, which do not possess similar complexes, but have other valuable monuments. The Włodowice complex is a permanent historical and visual element of the local landscape that can help to build up competitiveness of the village. It can be clearly seen nowadays that various historical ruins are always attractive for tourists and their presence can develop local tourism services in the Jura region. On the other hand, destruction of such tourist attractions seriously reduces the importance and popularity of a given community (for example the medieval castle in nearby Lelów was destroyed in the 19th century in order to create a cemetery) [8]¹⁰.

⁹ Siewniak M., Mitkowska A. *Tezaurus sztuki ogrodowej*, oficyna wydawnicza Rytm. – Warszawa, 1998. – P. 41–42.

¹⁰ Uruszczak M. *Zamki w Lelowie i Żarnowcu-świadkowie rozkwitu i recesji dwóch miast na Prawie Magdeburskim*. [In:] *Czasopismo Prawno-Historyczne*, Vol. LXI-2009-Book 1. – P. 231–240.

The conducted research and analyses make it possible to conclude that despite very poor technical condition of the complex, it is possible to restore its original character of an aristocratic residence. This needs to be done to make Wlodowice more attractive as it is an important commune of the Krakow-Czestochowa Jura.

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Міхал Уруцак

ПАЛАЦ І САДОВИЙ КОМПЛЕКС У ВЛОДОВІЦІ. ПЕРСПЕКТИВИ ВІДНОВЛЕННЯ ОБ’ЄКТА ДЛЯ ТУРИСТИЧНОЇ ПРИВАБЛИВОСТІ РАЙОНУ ЮРА КРАКОВО-ЧЕНСТОХОВСЬКОГО

Анотація. Подано аналіз можливостей ревалоризації історично сформованого палацово-паркового комплексу у Влодовіці. Обговорюється прагматика дій у практиці консервації. Запропоновано можливі напрями дій з предметного наповнення, спрямовані на прочитання його оригінального планування та популяризації муніципалітету.

Ключові слова: збереження, реставрація, культурний ландшафт.

Vol. 1, No. 2, 2015

Yaryna Yuryk

DEVELOPING AND PRESERVATION OF MEMORY IN THE ARCHITECTURAL ENVIRONMENT OF THE CITIES

*Lviv Polytechnic National University,
12, S. Bandera str., Lviv, 79013, Ukraine
fotografika2013@gmail.com, Yaryna Yuryk*

Received: November 24, 2015 / Revised: December 16, 2015 / Accepted: February 02, 2016

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Abstract. The paper focuses on the ways of memory preservation in the architectural environment of the cities. The peculiarities of memory applications as a source of inspiration for modern Ukrainian architects in the environment of the Ukrainian cities are considered.

The article highlights the problem of memory development in the architectural environment of the city by applying the architectural and design means. The specific features of the memory use as a multidimensional category are revealed; and considered as the sources of inspiration for modern architects in the environment of Ukrainian cities which serve as a memory storing device. The research results support the hypothesis that continuous processes of memory development, from personal to the global one, occur at various levels of the city environment using the means of architecture, design and art.

Sites of memory, buildings and objects-symbols create a spiritual framework of a city. It is shown that the perception of a city as a qualitative and valuable environment by the in-groups and the out-groups occurs in the context of self-identification with the urban space, natural and architectural environment, the cultural heritage and it is inextricably linked to the multidimensional nature of memory: historical, social, urban, individual, national, etc. A historic or new urban environment is the ground for materialization of identity and memory, along with the need to preserve the environmental sustainability, safety and diversity. Modern architecture and new public spaces should enable the communities to identify themselves with it and materialize the memory, as long as architectural design work should strengthen the memory of the city.

The study investigates two major groups of Ukrainian cities in terms of preservation of urban memory. The first group includes the cities with the preserved multicultural historical heritage and preserved memory, and where the continuous activity of the establishment of social memories by the communities occurs, and under the influence of the variables of state doctrine memory, the transformation processes happen. The second group consists of the cities which lost the memory expressed in the built environment during World War II and were reconstructed with the means of typical Soviet building techniques. In Ukraine, there is still no formed politics of memory, especially where public spaces should get priority-memory objects that would strengthen and form the city memory.

The article studies the peculiarities of modern art of architecture in cities of both categories as based on our expert sociological research, analysis of publications, and surveys of their natural environment, which the author carried out in 2013–2014. These objects are analyzed in the context of the city memory and the memory layers used by the architects in their artistic work are identified. Thus, a dominant value of the memory category in modern architectural and design work manifested itself in the environment of the Ukrainian cities is specified.

Key words: memory, places of memory, quality of the environment, conservation, perception, architectural work.

1. Introduction

The architectural environment of the city reflects the historical processes, development and social status of the communities and their attitude to the environment, their aesthetics, and is a reflection of the memory.

The idea of “memory” preservation is the central category in culture and architectural practice; however, its theoretical ground is not studied thoroughly in architecture [1].

It is necessary to conduct the interdisciplinary investigations of the city architectural environment in order to preserve their historic and cultural heritage and memory. The study has an initiative nature, yet agrees with the scholar field of the Department of Design and Architecture of the National University "Lviv Polytechnic".

2. Basic Theory Part

The need of self-identity and its retention is one of the main qualities of perception and evaluation of the environment of the city by a human.

The continuous processes of memory materialization happen in the space of the city at different levels. This feature of the environment, which serves as the memory storage, undergoes the constant reconsideration in terms of design and architecture means. The architects apply different layers of historical, cultural, national, and public memory of the city.

The research papers which study the notion of memory developed by the scientists from France, German, USA, Switzerland, the Great Britain are analyzed. The main principles of the phenomenon are postulated by Maurice Halbwachs, Le Goff, Pierre Nora and others. Some aspects of the problem are developed by the following scientists: Valentyn Asmus, Gary Warnaby, Christopher Day, Andrej Ikonnikov, Sigmund Freyd, Kevin Lynch, Igor Kondakov, Piter Giri, Bogdan Cherkes, Yaryna Yuryk. The following works which focus on different aspects of the development of architectural environment are of considerable importance in the context of present research: Vyacheslav Glazychev, Yan Geyl, Viktor Timohin, Svitlana Slipchenko, Donald Wotson, Svitlana Hasiyeva, Nan Ellin, Volodymyr Shimko, Nadiya Shebyk, Zoya Yargina, and others.

It is necessary that the environment of the Ukrainian cities should be investigated in the context of memory materialization.

3. Result and Discussion

The city as a sociocultural phenomenon is a very complex object to research [2].

The means of design together with the means of protection of architecture and monuments are known to be of great importance for solving the problem of preserving the historical memory of the city and the "memory of places". The satisfaction of the urbanities is correlated with the contentment of basic human needs which provide "safe", "diverse", "comfortable" and "ecological" environment [3]. In words of Yann Geyl, "...in ecological terms the main task of the architecture and design during creation of the comfortable environment is the protection of the surrounding nature and preservation (renovation) of natural balance; the support of both physiological and psychological comfort of the human as the part of ecosystem; spending and restoring of its resources in a civilized manner." [4] "Quality" and humanity of the architectural city surrounding is defined by not only providing to the residents and the visitors of the town the necessary opportunities of identification with its architectural surrounding and orientation in it, but it is as well defined by the ability to represent and put in the space of the city its "memory".

"Perpetuation" as the means for preserving the memory of society is the measure for the state and society to be civilized. [5]. The cities are characterized by the idea of collecting memory as today modern city is the stratum of the memory. Indeed, according to the words of Piter Giri, "*the social memory is the process by which society actualizes and reformulates perception of the past as the essential part of its identity*" [6].

The "politics" of materialization of national memory has not been formed in Ukraine yet [7]. The single doctrine of national memory and its representation in the space of Ukrainian cities would allow to consolidate the Ukrainian society.

With the help of means of sculpture and design it is possible to develop "the fastest way" of memory materialization in an urban environment. At present, we need to remember not only the state representation of the memory in the urban environment but also contemporary public art.

The reconstruction of destroyed towns in the eastern part of Ukraine is the primary goal of the government after the ceasing of the anti-terrorist campaign. It is also necessary to solve an important task of identification and marking the town spaces of the cities which were ruined during the anti-terrorist campaign in order to perpetuate the memory of those killed there. The construction of memorials and establishment of memorial plaques is to be the common task for the authorities, architects and urban communities. It will reflect the level of civilization of Ukrainian society.

The tragic pages of modern Ukrainian history known under the name of “Euromaidan” events and Dignity Revolution are kept in the pantheon of the national memory [8]. The discussions of having the memorials to the Heavenly Hundred heroes have been held in Kyiv and Lviv; and the sites to commemorate the memory of Heavenly Hundred given in spaces of the towns and villages of Lviv region illustrate that the most representative ones are chosen by the communities themselves.

The result of the international competition *Territory of Dignity* held in Kyiv is to be the demonstration of the remembrance of the Ukrainian society.

The impact of architecture as a form of art onto the social memory is caused by “the level of influence of artistic images onto the soul and mind of man” [9]. Sigmunt Freud pointed out, “... artistic creation ... giving rise to the mutual experience of high feelings evoke a sense of identification which is desperately needed by every cultural group” [10]. Igor Kondakov stresses, “The artistic experience allows ... the viewer of the piece of art to interact with the social memory, which is both the part of the author’s work ... and is connected with the historical memory of the person ... in the end, it arouses the changes which lead to a social memory” [11].

Despite globalization and mega-urbanization, the architectural environment of the modern cities is a carrier of the memory multifold category: world (global), state, historical, ethnic, social, cultural, urban, religious, individual. This multidimensionality causes and enables the stratification of the urban environment. The means of the urban design, architecture, classical and contemporary art make it possible to solve various problems at the different levels. The “memory” appears as an inexhaustible source of inspiration in the works of the contemporary artists.

It is a very important task for the architect to be solved while designing the public spaces and public architecture. We can compare the neglect of social and cultural issues in architectural and city developing activity to “committing a crime.” In particular, public spaces cannot be thought in terms of “the monuments with the own architectural identity” [12], but only as spaces that help to develop the community identity and primarily materialize the memory. It means that all these important tasks should be considered in the context of the self-identification of the inhabitants with the cultural heritage who, in turn, are the carriers of memory and together with the city which is the “territory” of memory demonstrate the necessity to materialize. It is also important to specify that modern architectural constructions affect the identity of the inhabitants, their self-identity, create urban identity, and improve or ruin the urban memory. The main criteria that are taken into account while analyzing identity in the work of any architect together with the ability to solve the problem of preserving the multifaceted memory – personal, historical, social, national and urban - are the design of the objects considered as the symbols of certain memory; implementation of important or contra-version projects for the community, especially in the historical environment* of the city; application of local, urban, social, national or global memory as a source of inspiration.

The complex research of works of memory category application by modern architects which were carried out in Ukraine in the urban architectural environment was done in 2013–2014. The study is underpinned by the methods of field surveys analysis and photo-fixation of the architecture, sociological surveys to identify urban residents in historical and cultural environment of modern architecture, analysis of architectural periodicals and Internet publications. Their work is analyzed regarding the following criteria: author affiliation to a particular architectural school, possessing awards and being granted the state commissions, functional buildings (residential and public architecture, sacred or memorial), participating in national and international competitions. The approach like that enables to define social and public significance of the architecture and the right to design in the historic environment or beyond it. The comparative analysis of publications printed in professional and daily press on built objects was carried out. The publications in which authors prove a creative solution chosen for some specific objects and the creative doctrines they follow are also studied. Their understanding (direct or indirect) of the memory categories in the field of architecture and design, and also preservation of the historical memory in the urban space of Ukrainian cities is divided into two main groups. The first group includes the cities the communities of which competed for the approval of memory in architecture and historical space during their historical development (e.g., Lviv (Fig. 1), Ivano-Frankivsk (Fig. 2), Chernivtsi, Uzhgorod and other cities). The impact of the variable state doctrines of memory to which they belonged is crucial. This process is most materialized during the 20th century. The cities belonging to this group

* Areas on the UNESCO world heritage list.

are characterized with different levels and value of the preserved historical environment. It is the historical cultural heritage which influences the identification of residents, preservation of historical memory, comfort level, and memory materialization by the architects in its space. The second group includes Ukrainian cities which architectural environment was formed with a typical construction at the site of destructions caused by World War II [13]. It is also necessary to construct memorials in order to honor the victims of genocide and the Holocaust.



Fig. 1. Lviv, 2015



Fig. 2. Ivano-Frankivsk, 2014

Thus, regardless of the processes of globalization and mega-urbanization the urban architectural environment is the place which represents the complex and multifaceted nature of memory: global, state, historical, national, social, cultural, religious, and personal. This particular feature of memory enables and causes the stratification of urban environment. The means of urban design, architecture, classical and modern art help to design different tasks on various stages. “Memory” serves as the best source of inspiration for artistic work of modern architects.

However, we should remember that means of sculpture and design give the fastest “fix” of memory in an urban environment. Considering this aspect, it is worth to investigate representations of the state memory in urban environment and contemporary public art. The further research will be conducted in the light of this focus.

4. Conclusion

The meaning and nature of the memory category in modern architecture and design in the context of its significance for the architectural creativity and identity is defined. Regarding the level of preservation and the value of the historical environmental, the architects of the Ukrainian cities turn their attention to different layers of historical and social memory. Due to different historical periods of the Ukrainian cities caused by being the part of various states the application of the “memory” notion is different and the “places of memory” differ as well.

Along with the rebuilding of the cities, an important task for the authorities, architects and communities of the cities is the demand to honor the memory of victims in the spaces of these cities, establishment of memorials.

The measure of humanity level of the society and the state is the activity connected with the perpetuation of memory that should have its adequate reflection in the space of towns. This task outlines the means of urban design and sculpture together with the use of necessary means of heritage protection in the historic cities. The state doctrine of the memory is the main point in solving the problem of preserving the historical memory of the city and “memory of places”. This doctrine makes possible the consolidation of the state and society, respects and imprints the names of the heroes who gave their lives for the Motherland.

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Ярина Юрик

КАРБУВАННЯ ТА ЗБЕРЕЖЕННЯ ПАМ'ЯТІ В АРХІТЕКТУРНОМУ СЕРЕДОВИЩІ МІСТ

***Анотація.** Досліджено аспект карбування та збереження пам'яті в архітектурному середовищі міста. Розглянуто особливості використання пам'яті як джерела натхнення у творчості українськими сучасними архітекторами у середовищі українських міст.*

***Ключові слова:** пам'ять, місця пам'яті, якість середовища, збереження, сприйняття, архітектурна творчість.*

Vol. 1, No. 2, 2015

Gottfried Zantke

SOLUTION OF TRAFFIC PROBLEMS IN THE CENTRAL AREA OF LVIV

Senior Experten Service

Buschstr. 2, 53113 Bonn, Germany, gottfried.zantke@gmail.com

Received: October 17, 2015 / Revised: December 14, 2015 / Accepted: February 02, 2016

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Abstract. Deficiencies in the traffic infrastructure in central Lviv lead to congestion and obstruction of pedestrian movement as well as pollution, but the main reasons of these problems are not physical. They lie in the absence of efficient administrative and legislative measures for the management of stationary traffic.

Key words: city centre, traffic, parking management, pedestrian zone, public transport.

1. Introduction

Since the independence in 1991 car ownership in the Ukraine increased significantly. But in 2012 there were still only 220 motor vehicles per 1000 inhabitants, excluding motorcycles and other two wheeled vehicles, compared to 580 in Poland or 588 in Germany[1]. Although the figure for Lviv no doubt is far above the Ukrainian average, traffic in the city will become more dense in future. On top, the UNESCO world heritage area will attract more visitors when tourists will no longer be deterred by the political insecurities.

Already today the traffic situation in central Lviv is difficult. With the rise to be expected this situation will become intolerable and jeopardize every effort to exploit the attraction of the historic city economically.

The Senior Experten Service (SES) is a German non profit organization which provides retired experts to foreign institutions. When the author was asked by the SES to work with the National Polytechnic University of Lviv he thought his professional experience and advice concerning planning methods or IT programmes might be needed. This turned out as an error because the university appeared to be working on the same high scientific level as German Technical Universities. Nevertheless there was an aspect of this task where his advice was needed – to share German experience about the habits of people concerning cars and traffic.

2. Investigation of the deficiencies

Because traffic causes so many problems in the central area of Lviv city government asked the Lviv Polytechnic National University to do an investigation of these problems. A working group at the Department of Urban Planning, headed by Prof. dr arch. Halyna Petryshyn, identified two types of reasons: external and internal causes¹.

External causes are problems in the overall road network of Lviv which have effects on the inner city. Deficiencies in this network divert traffic to the city centre although the destination is elsewhere. Instead of creating through traffic in the centre the road network could relieve the inner city if two lacking connections were constructed in order to close an inner and an outer ring system.

For the inner ring system the missing link lies east of the central area and could be closed by a tunnel under the high castle hill. An existing plan was abandoned because the costs appeared to be beyond the payable amount. There are two possible consequences. Either a new cost-benefit analysis proves the benefits to outweigh the costs after the problems increased and the tunnel has to be built – if this has not happened yet it will in the near future. The alternative is to find a new route which can be constructed on the surface.

¹ Working group: dr arch. Nadiya Sosnova, arch. Stepan Tupis, arch. Inessa Sklyarova, MA Roman Liubytskyi. Nature traffic investigations were executed on 1-15.12.2015 together with author.

The outer ring system is incomplete (over 20 km is missing) until it is connected to the shortcut of the E 40 which is planned in the North of Lviv [2]. As the project for this motorway is quite advanced a solution of this problem does not appear to be far away.

Internal problems are predominantly conflicts between individual and public transport especially on rails. Road profiles are too narrow in many places. This fact is aggravated by dysfunctional division of the profile between the different fractions of traffic. Most tram tracks are not arranged functionally. The optimal layout in two-directional traffic is tram tracks in the middle of the road with car lanes on either side of them. Road and tram rail layout in many places in the city centre is based on plans conceived over a hundred years ago. To correct this immediately on Lviv's extensive tram network is too expensive, but whenever tram rails have to be replaced because they are worn out – and a lot of them are – they should be repositioned in the most functional way.

3. Investigation of Lviv's traffic problems

Far more than being impeded by moving cars the public transport and traffic in general is impeded by cars when they are not moving. Looking at the city centre it is obvious that it is the parking which takes away valuable space for public and private transport as well as for pedestrians. In most of the European cities with a comparable historical center, let alone UNESCO heritage, cars are banned totally from the center. This is true for the inner cordon of world heritage area in Lviv too - at least in theory. In fact a lot of cars circulate or stand even in this area with whatever excuse. But the historical center of high urban value and exquisite buildings in Lviv is not confined to the UNESCO boundaries.

The working group established an abstract ideal city model (Fig. 1) with a central area consisting of an inner zone, an outer zone and a ring of car parkings around this zone. The assumption, based on experience in Germany, is that people accept a walking distance from a car park to the inner zone of about 7 minutes which corresponds to a distance of 300 to 500 m, in some studies even 1000 to 1500 m [3]. The ideal model has to be translated to the physical nature of Lviv, which is depicted in the map (Fig. 2).

The inner zone of the city should be pedestrianized totally to protect the buildings and make visitors experience this precious part of Lviv undisturbed. There should be the consequent rule: No access for cars to this inner zone, except emergency vehicles like ambulance and fire brigade, for cars of handicapped people and for delivery from 7 to 9.30 am (recommended)². This is neither unreasonable nor unfair to car drivers. It is the question of priorities and most of the historic cities I know have decided to favour their buildings and pedestrians.

City center parkings arrangement model. (By prof. G. Zantke)

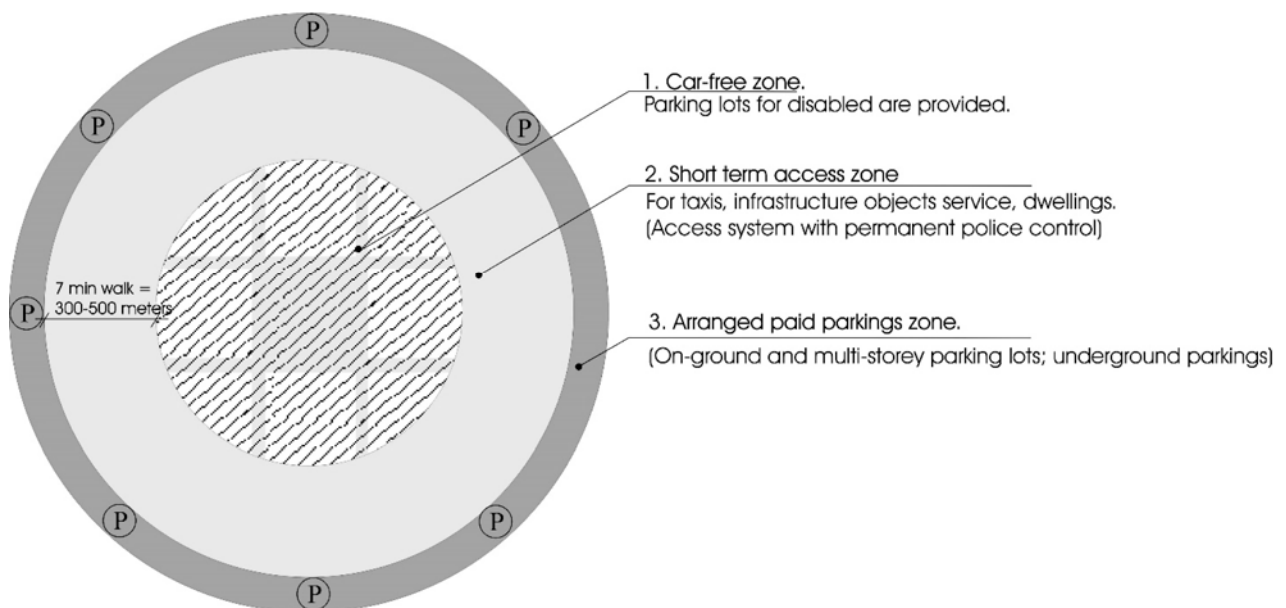


Fig. 1. Ideal model of city parking arrangement of Lviv (By prof. G.Zantke)

² Delivery hour shave to be defined by the city municipality.

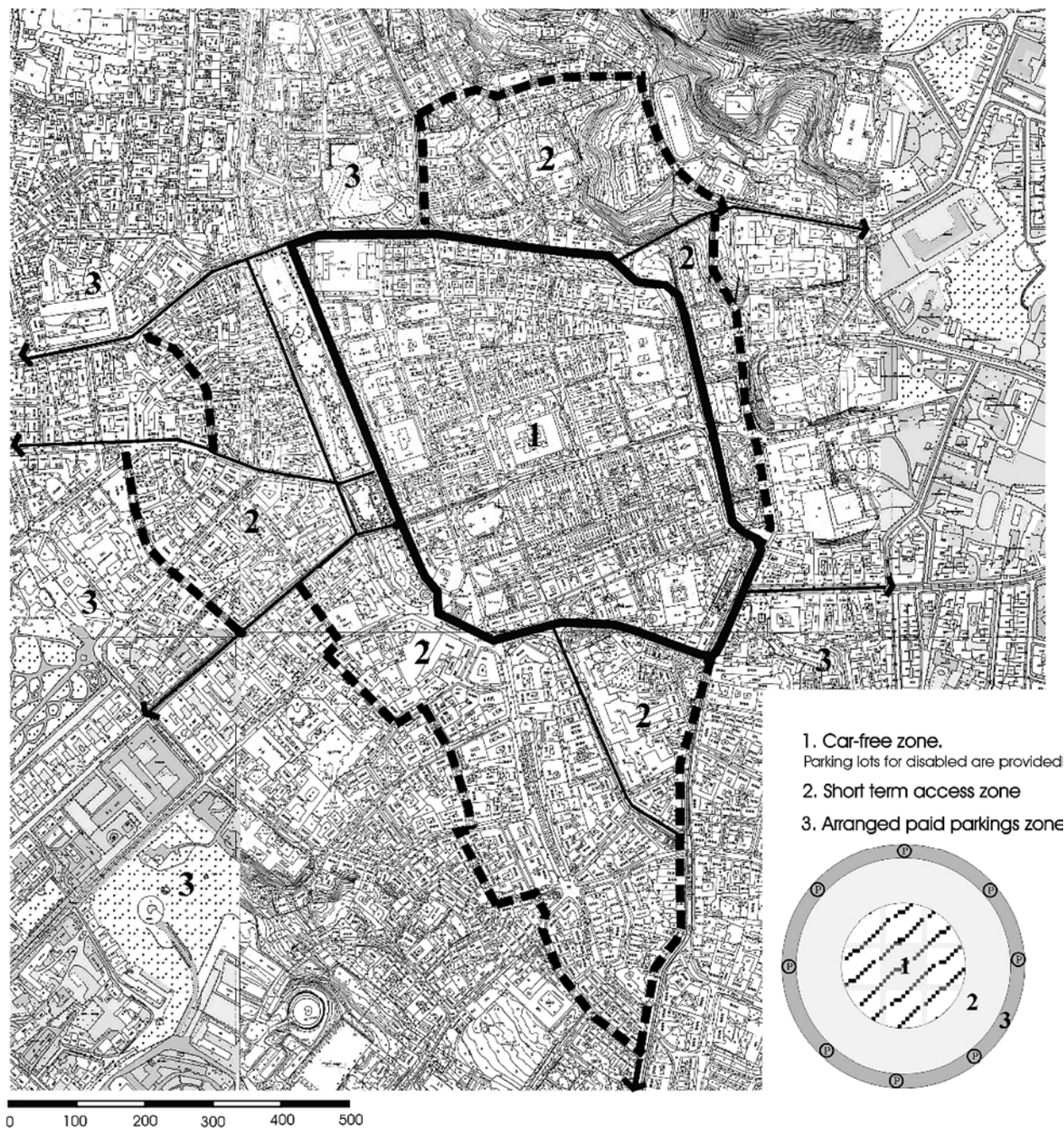


Fig. 2. Actual shape of proposed zones of central area.

Authors: G. Zantke, H. Petryshyn, N. Sosnova, S. Tupis, I. Sklyarova, R. Liubyt'skyi

The author had a planning office in Bonn, former German capital (1949–1990). In Bonn the whole inner city is pedestrianized, the diameter of this zone is about 600 m. In Bonn no retractable poles like in Lviv are needed to prevent unauthorized access – everybody respects the pedestrian area. He would be stopped by police immediately if he did not. This is not a specific reaction by an overcorrect police of Germany or Western Europe. Ukraine's neighbor Poland is very consequent in this respect too¹. To what extent can car drivers be expected to respect a pedestrian area, which walking distances are acceptable for residents or visitors of a historic city centre like Lviv?

¹ The author has recently been to Krakow. He wanted to rent a bicycle and the bicycle rental was in a zone of limited access. Having business there he assumed to be entitled to enter that restricted inner area. He was stopped by the police and was fined 500 Zloty equivalent to 3000 UAH! Ukraine's neighbor Poland shared the experience of the recent history. The example from Krakow shows that nevertheless they do not hesitate to execute their laws. Of course nobody likes to pay a fine of 500 Zloty but although painful he has to understand the necessity!

The author is aware that only 25 years in a democratic state and past communist economy people in Ukraine enjoy the possession of private cars and they want to use them. And he is aware as well that after a very long period in a totalitarian regime people resent restrictions of their personal freedom, every kind of regulation and their memory on police and military might still be disturbed. But as much as they suddenly have experienced a total change of attitude to their soldiers defending their freedom and inviolability of national borders as much they will understand that a civil society has to respect the self given rules and that the police is indispensable for that.



Parking at Valova str.



Parking at Pidvalna str.



Parking at Pidvalna str.

Fig. 3.-5.² Existing look of officially defined parking places.
(Photos of G. Zantke, December 2015)

“Drivers park their cars everywhere – on the sidewalk, in crosswalks, in moving lanes, on playgrounds, in public plazas, on grass and seemingly wherever a surface space can be accessed”^[4]. This quote from the Institute for Development & Transportation Policy, New York, was written to describe the situation for Kyiv but is true for Lviv too. Field studies in the centre of Lviv showed that car drivers keep parking irresponsibly, just where they like it, and a “No Parking” sign does not impress them at all! They only would change their bad habits if they know there is a heavy fine. Until now there is hardly any enforcement of parking rules. The police is engaged with more serious tasks like crime fighting. Controlling parked cars would mean binding highly skilled forces to simple tasks. So most cities in Europe have traffic wardens to do this, less qualified than professional police and also with a different legal status. They can learn their job in a week of training. A lot of jobs is created, in most countries the majority are women with less chances on the labour market than men. Their salaries are less than those of police. Even if the costs for placing meters in every street are considered there are no extra cost for the city but a profit instead from what the parking fees and fines add up to. In Germany the annual revenue is 20.000–125.000 Euro (0,5–3 Mil UAH)⁴ per meter, the average maintenance costs are 870 Euro (20.000 UAH)!^[5] Fees for an hour of metered parking are the equivalent of about 40–50 UAH in Germany, about 35 UAH in Poland. Fines like 500 UAH in Germany must be paid within a week's time, otherwise a warning is issued which costs three times as much and is registered at a central agency. After a certain amount of warnings the driving license is withdrawn for a month time. If a car is obstructing vehicle and pedestrian traffic in Germany the consequences are more severe.

² 1 Euro = 25 UAH (December 2015).

The illegally parked car will be towed away by a service and the driver has to reclaim it on their yard at the outskirts of the city, pay the price for the towing and a fine on top, together at least 5000 UAH. This measure can only be ordered by the police. Even people who have the privilege to be residents of the historic centre of Lviv or to run a shop or restaurant there have no claim to a garage or car parking. For example, in Bonn residents learned to walk the last 300-400 m from a car park to their home or their workplace in the center.

In the second zone (Fig. 1) vehicle traffic is permitted. But this is not the area to leave a car for two hours of shopping. There is no space for so many parking lots. Parking is restricted to 15 min. for urgent business. If cars are allowed to enter, why not let them park longer? If drivers do not find a place they keep circling waiting for a place to become vacant congesting the narrow roads, producing noise, danger and quite an amount of carbon dioxide, disturbing public transport and pedestrians who also want to enjoy this desirable and still beautiful part of the city. Until now the only argument was the protection of the beautiful city of Lviv and the comfort of residents and visitors there. As soon as carbon dioxide is mentioned it is clear that the issue is more complex as Lviv is obliged to contribute to the reduction of global warming like any other city.

4. Traffic network optimization

Considering the importance of car parks for the functioning of urban traffic it has to be accepted that car parks are as much part of the public traffic infrastructure as are the roads. So it is a public task to provide them. If the city government refuses to do this on the grounds of lacking funds this argument is not valid. In Germany car parks are so profitable that many cities do not leave this profit to private investors. The author's home city Bremen solved this problem quite satisfactorily. Bremen belongs to the poorest cities in Germany with the highest percentage of unemployment and highest debts. For building and running its car parks Bremen has launched the BREPARK, which is a private company legally in the form of a company with limited liability. This company operates like a private investor, takes loans from the bank, normally at very good interest rates since the risk for the bank is minimal, buys land for car parks, even if that is property of the city, builds the parking and runs it. The company is 100% owned by the city and profits go to the city if not reinvested in other parkings or in projects of public interest like the "Lloyd Passage". This passage once was an open street now covered with a glass roof. It is adjoining a parking house of Brepark. Together with the shopowners of the street Brepark financed this passage and managed the building process, a task too difficult for the city administration to do. A glance at website of Brepark reveals the number of 12.000 parking places in 9 garages and surface places and the prices: 70 cts (18 UAH) for half an hour, 12 Euro (300UAH) per day, 3,50 Euro (90 UAH) on Sun- or holidays.[6] Not only in Bremen this is a profitable thing for the city to do. There is no reason why this model should not work for Lviv – with prices adapted Ukraine's costs of living. It is obvious that a garage only has customers if people cannot station their vehicles illegally without paying or for just 4 UAH/hour³ a supervised car park in the centre as at present!

When the working group discussed locations for underground car parking in Lviv for most of those the argument was that the conservators do not allow to build a car park in the proximity of a historic building. This postulation is too restrictive. Bremen's history dates back to 780 after Christ, the city centre is still in the area of the earliest settlements and boasts a lot of very fine historic buildings. The city hall too belongs to the UNESCO world heritage. Nevertheless underground car parks and park houses are being constructed in the vicinity. Whenever remains of historic buildings are found, then the building process is stopped for a defined duration and the archeologists have the opportunity to excavate in this time what they need to. They may even order special procedures for the further building process eg. to conserve an old city wall in the basement of a new building. The duration and extent of the archeologists' measures are carefully negotiated but then the building process proceeds. A city is a living organism and every respect for the past must not choke this organism. Bremen's conservators have a lot of powers as to secure an adequate conservation of private old buildings including influence on the architecture of new buildings in the neighborhood but they understand that the city is not a museum! Part of the obligations of a world heritage is also its accessibility for visitors, so parking in a safe distance should be in the interest of the conservators if they respect the rules of ICOMOS, the agency for the UNESCO world heritage.

³ Fee for parking at Valovastreet is 4 UAH/hour(December 2015).

The next reported argument of the conservators (which was also discussed with working group in Lviv) is the fear, new building close to historical buildings might damage or even destroy these. One mayor problem is that of the ground water level. If lowered it can damage the foundations of a historical building which may even collapse. All of this is true for Germany as well and cities have been building in the neighborhood of gems of historic architecture without damage. This is nothing but a question of technical standards of the engineers and the building firms engaged. Because of recent economic problems in Ukraine projects have been built by companies which did not fulfil the high technical standards required and the result was damage. There is a very clear and simple answer to that: If a company does not guarantee for the qualification required no building permit can be given – but that should be evident! If buildings are not executed to the necessary technical rules whether these are more or less complicated something even more valuable than precious historic buildings are at stake: the life of people! Therefore this argument has to be dropped.

If the arguments about unwilling investors and dangerous constructions are invalid then locations for new car parks close to the city center have to be identified. The working group found sufficient opportunities which are depicted in map (Fig. 6) The majority of them were already included in the masterplan of Lviv [9].

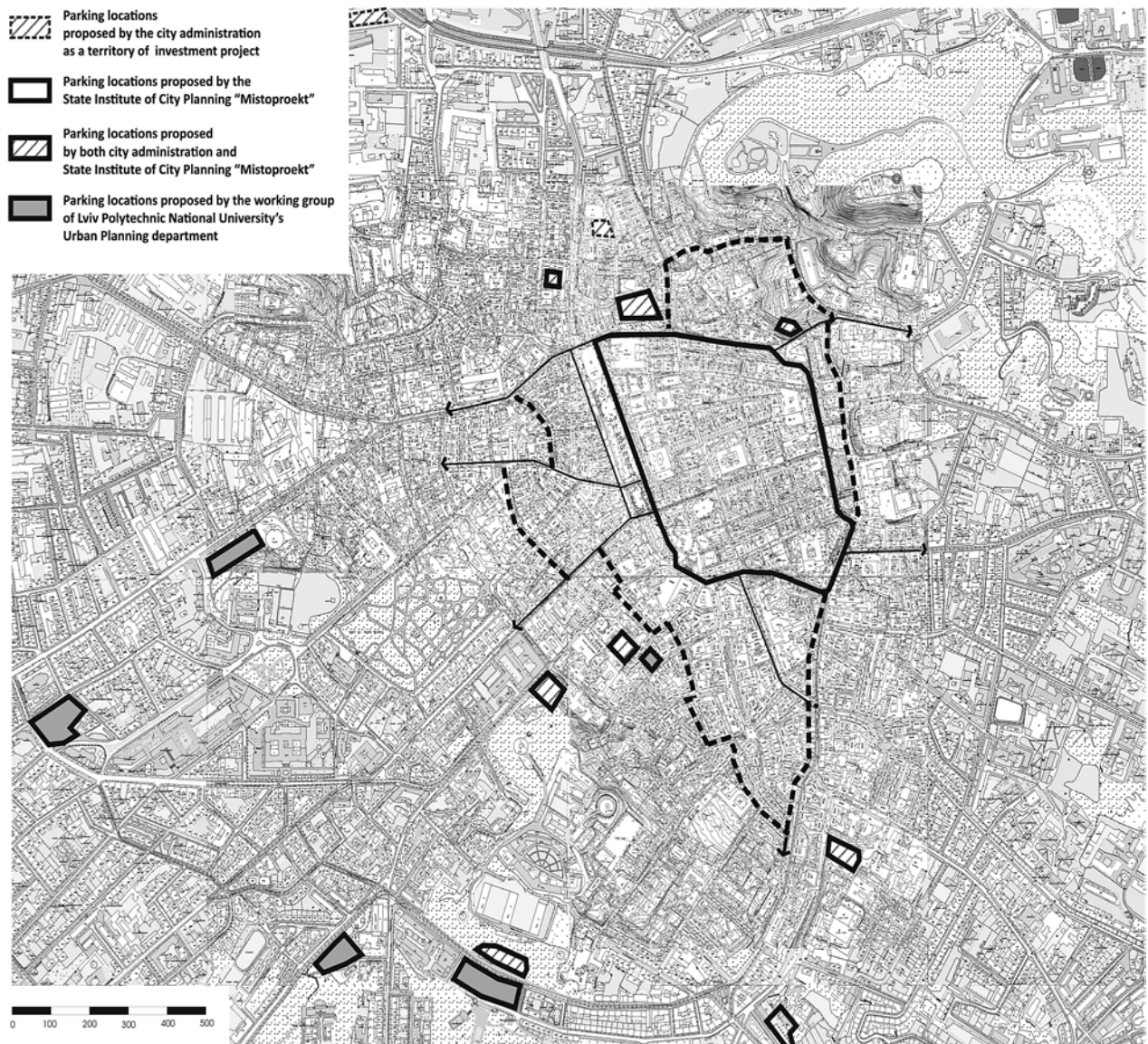


Fig. 6. Proposed locations of car parks

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5. Conclusion

The strategy to relieve the city from unnecessary and harmful traffic is twofold: Discourage individual car traffic to go to the city and encourage public transport, pedestrians and bicycles. In spite of its deplorable technical and maintenance standard the overall supply with public transport in Lviv is good. The tram network with the addition of the trolley- and other buses gives satisfactory access to the city as far as connections are concerned. Vehicle park and rail infrastructure have to be renewed, some tram cars already have been replaced by new models made in Lviv.

Are the proposed actions really necessary? The traffic situation at the moment is not inspiring but somehow the traffic seems to work. But the present situation will change dramatically in a few years – hopefully. When the war in the Donbass area will be over the economic situation of the Ukraine will recover, even more so since the EU-Ukraine “Deep and Comprehensive Free Trade Area” provisionally entered into force on January 1, 2016. Tourism to Lviv will undoubtedly increase, a lot of those tourists, especially from Poland will come by car and they want to visit the city centre.

Another development will take place. In countries with a high level of education not production but the service sector plays an ever increasing role. Lviv with many academic institutions, a high rate of well skilled academics combined with a lower wage level than the European Union will attract European companies. Close to the Eastern border of the EU a beautiful city as Lviv with a basically attractive supply of housing will face an increase of inhabitants most of which belonging to the higher income group. The number of car holders in Lviv ownership will rise accordingly.

If Lviv can somehow still exist with the transport problems in the central area now, it will be choked by traffic in future if these problems are not overcome by then. The solution of these problems is much more difficult when traffic has increased already. So the recommendation of the working group to the city of Lviv is to start to solve these problems now.

Shortage of funds is no excuse to wait. The immediate answer to the demand are predominantly administrative measures, first of which should be to organize a functional management of stationary traffic. For furnishing every street with roadside parking in the outer zone of the city centre with meters and establishing a force of traffic wardens the profit by far outweighs the investment as it does for the founding of a city owned private parking company.

Improving the quality of public transport should not be neglected because only then the massive increase of private car traffic to the city centre can be reduced. The necessary investment for this should not lead to the increase of fares. Today's fares of 2 UAH or even reduced of 1 UAH are symbolic rather than economic. But instead of increasing these prices to cover the actual cost of the system the opposite policy should be considered. European cities like Hasselt in Belgium [7], Tallinn in Estonia, Chengdu in China or Lübbecke and Templin in Germany [8] successfully introduced free public transport.

As soon as an improved economic situation enables the city to invest more into the infrastructure the gap in the inner road ring should be closed, the outer as soon as the E 40 north of Lviv offers this chance.

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**ВИРІШЕННЯ ПРОБЛЕМ РУХУ
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***Ключові слова:** міський центр, транспортний рух, управління паркуванням, пішохідна зона, громадський транспорт.*

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Conference: author, title of the conference, country, city, year, initial page.

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