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ІНСТИТУТ АРХІТЕКТУРИ  
КАФЕДРА ДИЗАЙНУ ТА ОСНОВ АРХІТЕКТУРИ  
ЛОДЗИНСЬКИЙ ТЕХНІЧНИЙ УНІВЕРСИТЕТ  
ІНСТИТУТ АРХІТЕКТУРИ ТА СУЧАСНОГО ПЛАНУВАННЯ  
ЛІСАБОНСЬКИЙ УНІВЕРСИТЕТ, ФАКУЛЬТЕТ АРХІТЕКТУРИ,  
ДОСЛІДНИЦЬКИЙ ЦЕНТР АРХІТЕКТУРИ, УРБАНІСТИКИ ТА ДИЗАЙНУ

LVIV POLYTECHNIC NATIONAL UNIVERSITY  
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UNIVERSITY OF LISBON, LISBON SCHOOL OF ARCHITECTURE  
RESEARCH CENTER FOR ARCHITECTURE, URBANISM AND DESIGN

# ЗБІРНИК ТЕЗ

## МІЖНАРОДНОЇ НАУКОВО - ТЕХНІЧНОЇ КОНФЕРЕНЦІЇ

COLLECTION OF THESES OF THE INTERNATIONAL SCIENTIFIC AND TECHNICAL CONFERENCE

# “ДИЗАЙН І АРХІТЕКТУРА: ІСТОРІЯ І СУЧАСНІСТЬ”

“DESIGN AND ARCHITECTURE: HISTORY AND MODERNITY”



КАФЕДРА  
ДИЗАЙНУ  
ТА ОСНОВ  
АРХІТЕКТУРИ



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ІСТОРІЯ І СУЧАСНІСТЬ

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MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
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**ЗБІРНИК ТЕЗ**

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**ДИЗАЙН  
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OF THE INTERNATIONAL SCIENTIFIC AND TECHNICAL CONFERENCE

**DESIGN  
AND ARCHITECTURE:  
HISTORY  
AND MODERNITY**

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# IMAGE OF IDENTITY

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In 2021, a book by Bohdan Cherkes and Jozef Henrik entitled “Identity in Post-Socialist Public Space” was published. The book demonstrates a comparative analysis of the public spaces of the capitals of the Central and Eastern European countries during the period of socialism and the post-socialist era. The book shows that the national identity plays a key role in the formation of public spaces and becomes the cause of significant urban transformations on the example of Kyiv, Warsaw, Berlin and Moscow. These changes demonstrate that political, economic, social and cultural factors lead to urban planning changes, which, on the one hand, become markers of the nation's national identity, and on the other hand, also shape national identity. The book is addressed not only to theorists of architecture, but also to practitioners and it is designed to prove that in city planning it is necessary to take into account the category of national identity as an urban planning factor.

## **“WHAT WAS AT THE BEGINNING - 3D MODEL OR IDEA?” PROBLEM OF CREATING NEW METHODS OF EDUCATION AT THE TIME OF 3D MODELING**

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It was easy a few years ago to teach student of interior design how to start a project. “Just imagine what do you want to do with the space and come with a sketch of your idea.” And when student’s idea for space was defined – solution for some problems were discussed – and preliminary drawings appeared. They were discussed and revised – and finally – the design is finished.



*Fig. 1.*

But how to use these kind of method of work with the student when the design is “ready to go” at the very beginning because it’s author is so good at 3D modeling and so proud of its view from bird’s perspective, so sure his design is “trendy”. There is no idea in his 3D model for the solution of space, nothing enigmatic at the journey with teacher through the design process.



Fig. 2.

But visual aspects of his “visualizations” are absolutely fantastic, lights taken from 3D warehouse – base of 3D models, the furniture used alike those presented in TV show.

Are 3D models are only tools firms are so eager to give to our students for free? These programs create new reality not only at the field of architecture, they are changing whole process of receiving our work by our clients, and as the whole process is progressing, they are changing expectation from the whole education environment. And sure 3D programs could change our approach to the whole way our reality is perceived.

They supposed to be only tools (as pencil or watercolors were not so long ago) but now they captivated our perception. Are the methods of teaching are adequate to what is going on the design world? As I work at second and third grade of bachelor studies and I am user of the 3D modeling as architect I see how timing and new methods of teaching are gradually but inevitably change the way of teachers and students approach to design.

There are two approach that organize student’s studies nowadays and do we still try to match them with student’s abilities and 3D modelers possibilities to make virtual reality.

<b>Two ways of working with students:</b> <b>/as 3D modeling is concerned/</b>	
Tools are given at the beginning,  mostly CAD programs and Sketch up;  short time lessons rather than workshops.	Using already well-known methods:  hand drawing, making models with scale.



<b>Results:</b>	
<p>Students know how to make 3D models but sometimes they do not know why the models are made this way and first of all: what was their idea of such solution.</p>	<p>Students are lost with the interface of programs. They underestimate their works as they have got no proper skills to use 3D modelers. (some of them are underestimate themselves).</p>
<b>How to improve the situations:</b>	
<p>Students to be more creative should work with an abstract space.</p>	<p>Students should worked on existing spaces trying to adopt to what is already done in 2D or even 3D modeler.</p>

## **ACKNOWLEDGING THE UNIQUENESS OF CREATIVE WORK, OF PROFESSIONAL AND PERSONAL QUALITIES OF YEVHEN LYSYK BY RENOWNED ARTISTS IN UKRAINE AND THE WORLD**

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The total scope of papers about Yevhen Lysyk published over his professional life and post mortem is 100 essays in newspapers, over 70 articles in specialized journals, many entries in books, encyclopedias, collections of papers, reference books, leaflets, albums, a.o. Some of the best know publications were authored by I. Dychenko, V. Sydorenko, L. Medvid, V. Ovsyichuk, O. Palamarchuk, Kh. Kozak, V. Proskuriakov, Z. Klymko, a.o. from Ukraine; by Yu. Churko, M. Kleymionova, V. Uralska, and A. Karelina from Belarus; by Ye.Rakitina, T. Troitska, N. Mikhaylovskaya, G. Semenov, G. Chelombitko a.o. from Russia; by H. Ostrovskyi from Israel; by P. Chynowski, Ya. Bersky from Poland. The 21<sup>st</sup> century saw the publications about Yevhen Lysyk in the research theses, such as in a dissertation on the “Architecture of

Stage Design by Ye.Lysyk” exploring into the artist’s creative phenomenon. These materials are valuable for the future Ukrainian nation and its theatrical and cultural heritage as they were written by scholars and followers of his theater and stage art. This information is critical for the depicting a truthful portrait of Yevhen Lysyk.

The objective of this report is to provide evidence to confirm the uniqueness of creative work and personal qualities of Ye.M.Lysyk acknowledged by renowned artists of Ukraine and the world in their interviews, talks, and publications.

Of all the descriptions of Yevhen Mykytovych and the phenomenon of his creative work and personal qualities, we can find most accurate references by Serhiy Barkhin, a former chief stage designer of the Bolshoy Theater in Russia; by Yuriy Charyshnikov, a former Lviv-based and now US-resident graphic artist; by Mykhaylo Frenkel, a stage designer from Israel; by Eduard Kochergin, a chief stage designer at the Russian State Academic “Bolshoy” Tovstonogov Drama Theater in St-Petersburg; by Lviv-based artists Valeriy Bortiakov, Liubomyr Medvid, a.o.

Upon summarizing the references by most renowned artists of Ukraine and the world, we may firmly conclude that they had recognized Yevhen Lysyk in the art of stage design since the mid-1990s. His creative, professional, and personal qualities were unique, and his creative legacy integrated the features of grand artists from the past, and can serve as a foundation for theatrical art in the future.

## **THE HISTORIC WINDMILL IN LININ AS A MONUMENT OF ARCHITECTURE AND TECHNOLOGY**

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**Abstract:** In 1862, 90 windmills were grinding grain in Warsaw's Wola district. Only one windmill has survived to our times, now located in Linin (commune Góra Kalwaria), where it was translocated in 1917. The windmill was built in 1854. It operated as a mill until 1951. Today it is an excellent example of a monument of architecture and technology. The article indicates that the windmill in Linin is not only the last remaining Warsaw windmill, but it is also the largest post mill in Poland (this was pointed out by previous researchers of this monument). In addition, the research carried out by the author showed that the relocation of the windmill was associated with the modernization of its technological equipment. The modernization of the windmill was aimed at increasing its competitiveness in relation to motor mills. Post mills in Poland were generally considered quite primitive mills, suitable mainly for the production of wholemeal flour. The example of the windmill in Linin contradicts this opinion and indicates that the post windmill could be equipped with technologically advanced machines - all driven by wind power. The example of the mill in Linin was compared with other post windmills modernized in the interwar period, in which the driving force was the wind.

**Keywords:** mill, windmill, modernization, preservation.

# OPEN SPACES OF A MULTI-STORY RESIDENTIAL BUILDING: CONFLICT OF THE ENVIRONMENT

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Let us highlight the following key and closely related concepts: 1) conflict is a clash of opposing interests, views, and actions; extreme aggravation of contradictions, leading to complications or sharp struggle; 2) safety of the environment - a set of conditions, benefits, conveniences that create a feeling of security and comfort; 3) discomfort – inconvenience, lack of proper conditions necessary for normal human life and activities.

The urgency of the issue is due to: sharp densification of existing buildings and high-density construction of new residential complexes; increasing the functionality of residential buildings and combining functions of different (sometimes incompatible) contents on the common territory and in one volume; new social processes and changes in the behavior of people, authorities and investors. The purpose of the research is to establish dependencies between the actions of the government – community – investor, to determine the place of architectural and spatial means in such interactions, to substantiate the ways of eliminating conflicts in the environment and their avoidance in the future.

*Prerequisites for the study of conflict:* to understand this phenomenon at the general scientific level (political, social, ecological conflicts); classify conflicts in relation to the architectural and urban sphere; to reveal the essence of conflict in the residential environment in socio-psychological, managerial, project coordinates. Among researchers, there is no single interpretation of this phenomenon when studying it with the help of public opinion. The general set of problems associated with the study of conflicts should be considered in the context of conflict theories. In our context, we perceive the conflict as the behavior of the parties, which is aimed at causing mutual harm, that is, the parties are in a situation of confrontation and carry out actions directed against each other.

Spatial organization is aimed at harmonizing the spatial and characteristics of conflict and requires structuring: 1) characteristics of conflict (frequency of conflict, duration, number of participants involved in the conflict, number of people affected by the situation, cyclicality - attenuation and disturbance, ability to self-liquidate, controllability, randomness, inertia); 2) spatial characteristics of residential units are grouped around five groups — L (quantity, structure, needs); U (resources, obstacles, requirements), F (external, internal, coordination), G (structure, location, areas), T (history, modernity, perspective). The matrix is interpreted as multidimensional and is built as a set of interactions of selected conflict and spatial characteristics. The peculiarity of the matrix is that each of its elements has a common cell with all other elements that contain information. The dimensionality of the matrix is determined by the number of its elements, and the number of cells corresponds to the number of paired combinations. With a relatively small dimension (we used 10 conflict characteristics and 15 spatial characteristics), the matrix was compiled manually. Building a matrix allows you to analyze not only the results "at the exit", but also to understand more deeply the essence of processes and relationships. For the analysis of relationships, information can be provided directly in the cells of the matrix using variables of the type: there is no relationship between the elements of the matrix; the connection exists; communication is managed; it is expedient to use the connection to create a conflict-free system.

*Examples of conflicts in the residential environment of the city of Lviv.* 1. Conflict between the developer "BK Lvivtorgbud" and the residents of the residential complex on Ternopil'ska, 21. The reason is that the developer changed the place of construction of the kindergarten, completed another section of the building, and decided to build the kindergarten at the expense of the adjacent territory. According to the

development project, it was assumed that the quarter consists of six residential buildings, the space between the buildings remains free and is intended for recreation areas, children's and sports grounds. However, construction of two additional residential buildings began on the territory of the complex, and they decided to place the kindergarten just in the yard.

2. The conflict around the square on the street. Kulchytska (in the area of the "Southern" market), which involved residents of the district. The conflict between the residents and the investor of the Sokil Sports Club LLC, which wants to build a sports and recreation complex with a hotel, cafe and office space here, despite the agreed local initiative to create a public square.

3. The case of the 17-story unfinished building on the street. Lukasha, 1 — a conflict in connection with the violation of the declared number of floors of the building. In 2006, the executive committee of the Lviv City Council approved the construction of a 15-story residential building here, for which permits were obtained from all authorities. However, the developer built 17 floors, so the question arose about demolishing the two "extra" floors.

Requirements for the formation of a conflict-free living environment:

- it is beneficial to announce the position of the developer at the initial stage, to talk about the specifics of the construction and to show the openness of the "community - government - investor" relationship, to promptly respond to the problem that arises around the object - it is better to prevent a conflict than to eliminate it;

- environmental conflict problems are divided into "strong" and "weak", as well as aggressive. The main reason is concentrated in the ill-conceived mixing and combination of functions;

- the role of the project decision and the responsibility of the project author for the established conflict solutions, the differentiation of space according to special characteristics (private – group – private) and the ordering of movements with the removal of transitivity of space are increasing.

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## **BRIEF EXPLORATION OF CROATIAN SOCIALIST ARCHITECTURAL HERITAGE**

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Not until recent years has Yugoslavian socialist architecture heritage sparked the international academic discourse. Particular event which pushed for wider conversation certainly was the New York's MoMA (Museum of Modern Art) exhibition from 2018 "Toward a Concrete Utopia", which presented Yugoslavian architecture achievements, built and unbuilt, from 1948 until 1980. This exhibition followed the growing interest in modernist architectural heritage, however it shifted focus from well-known Western designers to Central and South European architects and their body of work. Still, although commendable, the exhibition largely focused on monumental projects with expressive and memorable forms, leaving out

numerous exquisite architectural projects deserving attention, protection and conservation. This research focuses on socialist architecture heritage in Croatia, exploring multiple architecture projects of different function and typologies, which should be widely recognised as important cultural and architectural heritage. What differs Croatian architecture from socialist period from other socialist states outside of Yugoslavia is the fact that Yugoslavia severed ties with the Soviet Union, which allowed for creative and artistic freedom of the architects. Architects, instead of designing in socialist-realist manor, widely adopted in other socialist states, followed the Western trends, realizations of modernist masters such as Le Corbusier, Mies Van Der Rohe, Louis Kahn and others. This resulted in modern yet still contextualized architecture. The research looks at the current state of objects from this period, often pointing out that although these objects are in many cases still in use, they are often decayed and lacking formal legal protection and official recognition as cultural heritage. Furthermore, the research focuses on projects of different scale, function and architectural typology, presenting at least one project for each of the criteria, from family houses, large scale residential blocks, public typology objects such as museums, churches and hotels, to industrial objects which are, after deindustrialisation, abandoned. The work, is therefore, brief exploration of Croatian socialist architectural heritage, through chosen case study examples.

Keywords: Architectural Heritage, Modernism, Socialist Architecture, monuments, cultural heritage, architecture history.

## **SPACE OF THE WORLD AND SPACE OF ARCHITECTURE**

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Architecture is a comprehensive phenomenon of the world. The existence of two worlds - natural and man-made - proves the impossibility of separating one world from the other every time. And nature - the first world - exists in our consciousness. And perhaps, without this consciousness, there is no nature itself. And all "natural" properties of nature itself are described by categories defined by man in human consciousness. Therefore, nature outside of human reality, outside of human imagination is unknown to man. Therefore, the world makes us exist as much as we make it exist. Moreover, consciousness does not exist separately from the world, imagination from the body, just as the body does not exist from the imagination.

Science of the 21st century. studies the manifestation of things, through which he tries to learn their essence. This doctrine is followed by theology, ceasing to look for the Absolute, God in the essential dimension, instead turning to man as a manifestation of God's essence. Until now, in architecture, there has been an idea that any of its objects - spaces, bodies, connections between them - are objects of architecture. And even more, architecture expanded its object to the consequences of human interaction with the world, which cannot be thought of, by definition, without the presence of man as an active principle in it. Therefore, architecture intensively returned, in addition to its spaces and bodies, to the study of the connection of everything with everything - visible and invisible, visual and meaningful, corporeal and effective - those effects that are created from the perception of everything by a person. Architecture, as a field of spatial cognition, intensively enters the spheres of science - psychology, medicine, linguistics, and many other sciences that study the multidimensionality of man and his world. Interdisciplinarity becomes one of the essential features of architecture for two reasons - firstly, architecture develops with its multifacetedness, interfering with other fields of knowledge, and secondly - other fields of knowledge increasingly discover the dependence of their subjects on space - the classical terrain of architecture.

The concept of space in which objects are placed has become an integral part of architecture since the Renaissance: the world is placed in space. Teaching architecture today is about the ability to fill space.

Therefore, after the Renaissance, cities were filled with large strips of streets, avenues, pedestrian boulevards and parade squares, which were later flooded by waves of cars conquering new spaces. These were societies of absolutism. Empires and their capitals. Time to conquer space.

Since then, society has often undergone dramatic transitions along with changes in the understanding of values, especially those related to people, and with them, space. The world, just like humanity, is constantly being filled and comprehended in a multidimensional, multifaceted, synergistic approach, in an ever-shrinking space of its development. Space ceases to be homogeneous, equal, safe and without tension. On the contrary, the space reflects the tension in the society that forms the space – each time it is its own space, and each time a different space as a result of the balance of tensions. Each period creates its own space. Synergy confuses components. To obtain energy, the most expensive resources are thrown into the furnace of progress. Learning to understand this space is the architect's task.

Frivolity, which causes a void of meaning, is especially noticeable in religious architecture. The form is so self-sufficient that regardless of what happens in it, it can independently give meaning and meaning to the space. The form representing the body has its own tension and energy. Unfounded and senseless use of certain forms distorts the identification of space and leads people into a world of misunderstandings. The artist's snobbery cannot be an excuse for the lack of a sense of space and its meanings. Two examples of Christian architecture are analyzed, which reflect temporary worldviews about the sacred and its representation in the visible human world.

Example 1. New parish church St. Francis Xavier architect Troufa Real , ( São Francisco Xavier , Rua Joao Dias , 53, Lisboa , Portugal ), consecrated on December 3, 2011 (Fig. 1) .

Example 2. Greece. Athos. Pantokrator Monastery. A defensive fortress on the seashore, surrounded by high walls. The central place belongs to the church, and behind it - the refectory (Fig. 2).



*Fig. 1. Parish church St. Francis Xavier in Lisbon, arch. Troufa Real : interior and general appearance of the church*



*Fig. 2. Greece. Athos. Pantokrator Monastery : interior and general appearance of the church*

# HISTORY OF THE FORMATION OF THE ARCHITECTURAL ENSEMBLE OF THE BASTION CASTLE AND ITS IMPLEMENTED PROJECTS IN EUROPE

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Built projects of defensive residences, including bastion castles, were done according to various models combining popular military and civil architecture during the fifteenth – seventeenth centuries. The type of villa-castle and its further variations, namely fortified palace and bastion castle, arose due to a new stage of military development.

In the northern regions, the wealthier families of the Florentine Republic, especially the Medici family, tended to build defensive residences to protect themselves in the case of a possible event of workers' revolt against their rule. Observing the development of bastion castles and the time frame of their construction by the Medici family, it can be supposed that this family founded the first models of such fortified defense structures. The famous yet never mentioned before, as first examples of bastion castles funded by the Medici family, are such hybrid defensive residences as villa-castle at Cafaggiolo (fifteenth century), villa in Poggio a Caiano (fifteenth century), and Forte di Belvedere (Fortezza di Santa Maria in San Giorgio del Belvedere) from the sixteenth century. Considering these examples, the lack of other examples of earlier periods, the time frame of bastion fortification development, and the fact that the Medici family was one of the most powerful families, it can be assumed that the Medici family gave the impetus to the developing the bastioned residential castle as a phenomenon in Europe.

This type of complex structure has been developing for over two centuries. It spread out in several European countries, leaving many variations as each country had different needs at the time of its development. Some of them had significant defensive value; others were symbolic or insignificant from a military point of view.

For example, in the case of Spadafora and Santa Flavia (Sicily), the owners chose the bastion castle model for their residences due to the need to protect their estates from random robbers and Turks. The German example (Friedenstein castle), like the examples from Sicily, was also built to protect the residents against the attacks from Turks.

In other cases, such as the Alberghetti Palace in Italy and the Quinta dos Chavões in Portugal, the bastion castle features were chosen as symbolic additions to residences to show the wealth and power of the owners.

# **A CONCEPT THAT WAS AHEAD OF TIME: THE ARCHITECTURE OF HOUSING ESTATES OF THE 1980S IN KYIV PODIL DISTRICT**

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Despite the short chronological distance, the architectural heritage of the socialist era still remains not fully explored and appreciated. As a result of the existing political and cultural isolation of the republics of the former USSR and the strict regulation of architectural activity, a conviction was formed that the world's leading trends in the development of architecture could not find their place and reflection in architecture and construction in the USSR. In this paper, using the example of five housing estates that were designed and built in the years 1980 in one of Kiev's historic districts, Podil, it shows that postmodern ideas of that time were reflected in Ukrainian architecture. At that time, Kiev architects proposed objects that representing not typical socialist architecture, but architectural solutions that fit perfectly into the international postmodern context. On the one hand, it showed that Ukrainian architects were able to create and erect objects that fully corresponded to the world trends of that time, and on the other hand, it showed that postmodernism in architecture was not limited only to the countries of Western Europe and the USA, but also penetrated by the "Iron Curtain" as a new form of architectural thinking, opposing the paradigm of modernism.

## **THE HERITAGE OF IZRAEL KALMAN POZNAŃSKI IN THE URBAN LANDSCAPE OF LODZ**

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For several centuries, Lodz was a small agricultural town. At the end of the 18th century, next to the existing, agricultural Lodz, Rajmund Rembeliński created a New Town, intended mainly for settlers who were supposed to produce textiles there. It was the beginning of the enormous development of industrial Lodz, initially it was handcrafted production, which was followed by factory production. The specificity of the development of the nineteenth century Lodz left a special mark on the city's image. The industrial complex at Ogródowa street, of Izrael Kalman Poznański, is a symbol of the industrial power of Lodz. Furthermore, it is an image of its dynamic development, until its collapse in the 20th century. The fallen and abandoned factory, as well as the accompanying buildings, due to their value, were quickly listed in the national register of monuments, as cultural heritage. However, at the same time a question arose about future fate of the factory complex. Fortunately, the post-industrial area, after several years of no use, was sold to a French investor who revitalized the former factory site and adapted the historic buildings to the Manufaktura complex, shopping, entertainment and cultural center. Today, one of the largest shopping centers in Poland is imbued with the atmosphere of a former factory. The fact that most of the buildings that make up the full production cycle with all accompanying functions have been preserved, make this complex of buildings a unique monument not only in the city, but also in Poland as a whole.

Keywords: factory, industry, cultural heritage, revitalisation, urban regeneration, industrial heritage.



# DESIGN OF OBJECTS REPRODUCED IN THE CONTEXT OF REVALUATION OF ARCHITECTURAL ENSEMBLES

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The revaluation of architectural ensembles involves the reproduction of their image in the historical landscape with possible changes in the functions of individual buildings. The best examples of urban and architectural monuments in Europe's multicultural heritage today are good examples of the use of revaluation methodology.

Architectural ensemble of palace and park, fortification and sacred content in the village of Pidhirtsi, Lviv region, is subject to a program of revaluation measures. Back in the middle of the 17th century here, on the hills of the Voronyaki mountain range, a luxurious residence with a park in the Renaissance style was built. From the 18th century, under the next owner, Vaclav Zhevusky, the possessions expanded, in particular, the Church of St. Michael was built (burned down in 2006) and the whole church territory developed gradually. Today it is the foundations and remains of the burned church of the 18th century; monuments of memorial sculpture of the 19th-early 20th centuries; front gate of the early 20th century; the place of the lost bell tower of the 18th century; individual samples of movable heritage, etc.

Thanks to the conducted research, search and measurement works and collection of iconographic material, the project of reproduction of architectural monuments was executed and their design in the process of revaluation was worked out. The works are being carried out in coordination with the administration of the Borys Voznytsky National Gallery of Arts and with representatives of the United Territorial Community (UTG). On the basis of exploratory works, during the expedition in the summer of 2021, it was possible to find and fix the foundations, to make dimensional drawings of the existing preserved part of the building. The project envisages the reproduction of the image of the main entrance gate, the creation of frame pylons and the conservation of part of the existing wall.



*Fig. 1.*



*Fig. 2.*

Thus, the design of the objects proposed for reproduction in the process of revaluation of the architectural ensemble of the legendary territories of the village of Pidhirtsi is presented. Participation of Pidhirtsi-Sholom NGO, student youth, OTG community, specialists from Lviv Polytechnic National University, international partners- demonstrates new ways to solve cooperation in order to implement projects of modern use of multicultural heritage in Ukraine.

## **TRANSHUMANISTIC AND TRANSCENDENT CODES OF GRAFFITI'S VISUAL COMMUNICATION**

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The topic of the report: The image of man as a symbol of the transcendent in graffiti.

1. The aim of the study is to trace the formation of symbolism and sign-image system of visual communication in the post-industrial context of global cultural and countercultural spaces, to determine the transcendent and nonconformist motif in graffiti.

2. Graffiti in the cultural and urban space, along with architecture, monumental and decorative arts, urban design and outdoor advertising is creates a stable constant of visual influence on society.

3. The informal art of graffiti street expresses the processes of global change that are born in society and represent themselves in a visual message. Their mission to inform about important social phenomena that remain out of the attention of official media resources.

4. The symbolic content of the sign-image structure of graffiti forms the main information component that provides communication between diametrically opposed social groups. The formation of the visual message of graffiti is based on the principles of artistic communication, which in the global information space acts on society through visual codes - signs, images and symbols.

5. Graffiti appeals both to specific industrial-consumer, man-made goods, technical and advertising symbols of the development of the artificial material world - logos, trademarks and advertising and political slogans, and to transcendent concepts, among which the image of man becomes a new symbol of uncontrolled, but productive energy, creative self-expression and self-realization.

6. Posthumanist understanding of the concepts of finite and infinite, temporary and eternal, happiness and pain are discover in the In graphical compositions, through the image of man. There is a transmigration of consumer symbols into transcendent concepts, and conversely, when religious symbolism becomes a commodity, then artistic communication bears the hallmarks of a transhumanist revolution in mass culture, where it becomes difficult to know what is eternal and what is temporary. And in the artistic sense it is copies of copies, simulacra of signs of global consumption, freedom, protest and nihilism.

7. The post-industrial and consumerist context of man-made forms leads to creative counteraction, where the image of man in the art of graffiti becomes a symbol of resistance against the ideological expansion and the ideology of total consumption. Nihilism and transcendent symbolism characterize the most creative and profound examples of informal street art. Encoded in the wall paintings of the streets of post-industrial areas of cities, rebellious ideas are expressed in the artistic and figurative opposition of the mainstream. Open, less often, closed graphic compositions with incomprehensible inscriptions, deformed fonts, abstract and associative images of artificial and living nature, mostly create destructive images, among which anthropic motifs simultaneously demonstrate instincts and physiological needs and attempts to understand some higher metaphysics.

8. Artistic communication of nonconformism is a transgression of symbolic forms, which leads to a shift in the emphasis of the traditional understanding of the content of sacred symbolism. The basic existential need of man to comprehend the unknown, builds new mechanisms of transformation of sign-image meanings of sacred symbolism. It is demonstrated by religious symbols that spontaneously appear in graffiti texts among various secular graphic motifs, they can be described as a gloomy nostalgic smile on social justice, a dream of a utopian social system or about transcendent paradise.

9. The best examples of the sacred art of modernist and postmodern canonical churches are distinguished by iconography, the expression of which shows both joyful and painful mental states of the individual person, their unique stylistic features resemble the formation of informal street murals. Both of these, at first glance, different in their social purpose artistic phenomena convey a sense of frustration of the individual, his painful adaptation to society, to consumer and industrial change and the desire of the creator to realize a better reality beyond the causal universe.

10. The introduction of religious markers into the stranger visual discourse of informal street art causes a process of transgression of symbols, where new possibilities of intersocial dialogue appear on the verge of understanding the content of graffiti texts, which can combine incompatible paradigms of official culture and counterculture. Thus it becomes clear understandable to both subcultures visual sign-image-symbolic system of spiritual identity. The visual communication of graffiti has a clearly defined main idea, in the center of which is a human. The visual text, is understandable it is clearly marked with a head idea, in the center is a posthumanist man, existential mission of which is the creation of new knowledge.

## NELLY PUCHINA

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*Fig. 1.*

Nelly was born on January 11, 1933, in Chernihiv in a family of Colonel Konstantin Kolpakov (1894–1954). She spent her childhood in Dnipropetrovsk and received an education in Lviv: she graduated secondary school and afterwards Lviv Polytechnic Institute, where she studied from 1950 till 1956 at the Faculty of Construction, majoring in Architecture. Her course projects were completed under the supervision of Ivan Bagensky and received excellent marks from the professor.

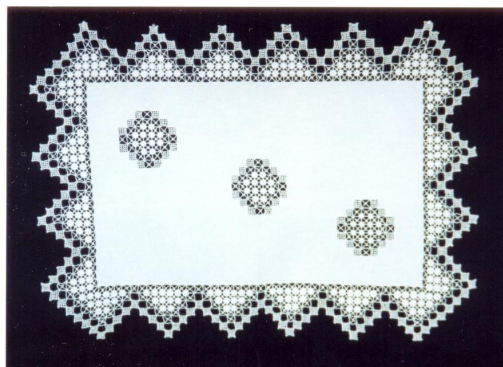
In 1956 Nellie Puchyna moved by an assignment to Moscow and began to work as an architect at the Design Institute of Hypercommunications (Hiprosviaz) under the Ministry of Communications of the USSR. She took part in designing of the office building for the Ministry of Communications in Ulaanbaatar in Mongolia. From 1960 to 1962 she worked in Tolyatti (RSFSR) as an architect at the design institute Promstroyproekt.

In 1964 she started to work as an assistant at the Department of Drawing and Painting at the Lviv Polytechnic Institute, where she conducts a course in drawing, drafting and the basics of architectural design. In 1976 she was promoted to the position of a senior teacher at the same department. Her pedagogical activity is covered in a number of methodical publications, for example: N. Puchina "Methodical instructions for performing drawing tasks of geometric bodies from nature. For students of the preparatory department and students of the 1st year of study in architectural department". Lviv: publishing house of LPI. 1987. - 24 p.; N. Puchina "Architectural fonts. Methodical instructions for the course "Fundamentals of architectural design" for students of the 1st year of study in architectural department". Lviv: publishing house of LPI. 1986. - 28 p.

She retired in 1988 but continued her creative work actively. In 1995 she became a member of the Lviv State Regional Center of Folk Arts, Cultural and Educational Work. Same year she took part in the exhibitions of this organization in the Palace of Culture in Sokal and Chervonograd; in 1997 in the city of Burshtyn; in 1998 in the exhibition hall of the Ivan Franko Museum, Lviv; in 2000 in the museum of folk architecture and life "Shevchenkivskiy gai", Lviv; in 2001 in the exhibition of folk arts of the Lviv Region in Donetsk, in the exhibition of the Museum of Ethnography and Art Craft in Lviv, in the exhibition in honor of the 10th anniversary of Ukraine's independence in the National Palace "Ukraine" in Kyiv and in the exhibition "Halysky Rainbow" in the Sheptytskyi Exhibition Fund dedicated to the arrival of St. Father Ivan Paul II to Lviv. In 2002 she took part in several exhibitions, such as exhibition of works of the masters of folk arts of the Lviv Region in Lviv Palace of Arts; exhibition "Easter Rainbow" in the Museum of Folk Architecture and Life "Shevchenkivskiy Gai" in Lviv; sacred exhibition "Hallowed be the Name yours" in the Museum of the History of Religion in Lviv. In 2003 she took part in the exhibition "Easter Rainbow" in the memorial museum of S. Krushelnyska in Lviv and in 2004 in the exhibition of folk arts masters of the Lviv Region in the Ternopil Regional Art Museum in Ternopil.

The works of N. Puchyna are kept in private collections in Ukraine, Poland, Austria, Germany, Australia, Canada, Norway (2002–2004 – a set of embroidered women's costumes; 2001 – a set of collars, machine openwork embroidery; 2002 – a set of napkins, machine embroidery, Richelieu; 2003 – a set of beaded caskets and necklaces; 2005 – a set of Easter eggs braided with beads and napkins with cross-embroidery).

In 2001 N. Puchyna was awarded a certificate from the Department of Culture of the Lviv Regional State Administration. She passed away on April 12, 2017, and was buried at the Lychakiv cemetery in Lviv. Publications about her remained in the exhibition catalogs and a bright memory in the hearts of relatives, friends, colleagues and students.



*Fig. 2. Napkin, machine embroidery, Richelieu*

# ARTISTIC FEATURES OF MATSEVAH'S FONT COMPOSITIONS

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The purpose of the study - to identify the artistic features of carved font compositions, the analysis of constructive schemes of text compositions on the matzevahs of Eastern Galicia XVI - the first third of XX century. The research methodology involves the use of a number of methods: historical-comparative, formal-stylistic and structural-typological. For the analysis of compositional solutions art categories are used, as well as practical experience of visual, stylistic, morphological-compositional and complex analysis.

The scientific novelty is that for the first time the main artistic features of matsevah font compositions are analyzed, their place in the design of matsevah facades is determined. Relevance of the research topic: In Eastern Europe, and in Galicia in particular, currently there are several million Jewish tombstones. The vast majority of stone carving monuments are in a state of disrepair, and access to them is generally very difficult. Matsevahs are often moved from their original locations and severely damaged.

In traditional Jewish art, the emphasis was often on the aesthetics and calligraphic expressiveness of the font. Present in synagogue frescoes, on everyday and ritual objects. An important element of Jewish culture with examples of calligraphy are Jewish marriage contracts, ktubots, whose compositions were carefully thought out, performed by a scribe to individual order, and a combination of calligraphic texts and traditional Jewish motifs created a holistic ornamental composition. Textual information using artistic fonts is a traditional motif for illustrating bindings, titles and avant-titles, titles, manuscripts and old prints in Hebrew of the XVI-XVIII centuries: pinkas, various types of prayer books, Talmudic treatises, rabbinic recollections, commentaries on life, treatises on aesthetics, commentaries on the Torah, Halachic (legislative) codes, collections of Talmudic agada, books of kings and chronicles. The texts of the epitaphs, depending on the plan of the craftsman-performer or the preferences of the customers, could be composed in different sections of the facade of the matzevahs and were arranged according to a certain "formula". Font compositions were usually arranged in the lower section in dense parallel rows. They could also be arranged in different geometric shapes. Long texts were divided into several separate fragments, and, accordingly, one matsevah could contain multilevel versions of the text with different types of decoration. The texts were mostly framed by decorative borders with floral ornaments.

The weaving of the same ornament almost dissolves amid the relief of symbolic images placed above the epitaph. Protruding, three-dimensional carved letters and Aramaic square characters with a noticeable difference in thickness between horizontal and vertical lines enhance the impression of the integrity of ornamental compositions. Deep in the depths of the stone, a sharp, carefully carved font, contrasting with the background, often became the focus of the whole composition. If the text of the epitaph was enlarged, containing long biblical quotations and poetic texts, poetic inserts or other important information that could not be conveyed through a symbolic image in the upper section of the matzevahs, the text completely filled the tomb facade. The use of polychromy gave the fonts an extraordinary sound, which is extremely rare, but it is still possible to see them on some of the surviving monuments (Fig. 1-2).



*Fig. 1-2. Fragments of font compositions with preserved polychromy on ancient mats of Sniatyn and Zabolotiv, Ivano-Frankivsk region. Photo by the author.*

Conclusions: Despite growing interest, this subject remains understudied; only a few individual ancient Jewish cemeteries have been described, properly documented, and studied. An inventory of Jewish tombstones in Eastern Europe is a particularly pressing task, given their rapidly progressive destruction. This study was the result of intensive work of the author with the Jewish epigraphic monuments of Eastern Galicia, which include primarily font compositions on ancient Jewish tombstones of the XVI - first third of XX century.

Keywords: matzevah, epitaph, text, information, font composition, carving, memorial.

## **INTERIOR DESIGN FORMATION IN SACRED ARCHITECTURE OF THE FIRST QUARTER OF THE XX CENTURY**

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In the context of researching the ways of elaborating an individual comprehensive approach to sacred interior design, we have raised the problem of establishment and development of Western Ukrainian sacred architecture in the first quarter of the XX century. For this purpose, we have outlined the geopolitical and socio-cultural factors which have made an impact on acceleration of artistic life of that time and more active process of constructing sacred buildings that resulted in the increased demand for church interior decoration. The causes, origins, and tendencies of design formation in object-spatial environment of Western Ukrainian church interiors have been distinguished. It has been pointed out that economic reinforcement of Ukrainian communities and development of national consciousness of Ukrainians residing in Halychyna region on the verge of the XIX-XX centuries have resulted in emergence of «social demand» for sacred architecture of highly professional level. The socio-cultural nature of activity of artists, architects, and masters of decorative and applied arts, whose creativity laid the foundation of protodesign as the competitive European direction of design activity development on Western Ukrainian terrains of that time, has been highlighted. To a large extent, these processes have fostered the establishment of individual artistic and figurative approaches and personified means of sacred project interior design. The specified processes have encouraged the development of decorative and applied stylistic solutions which have formed the basis of modern national ethno-artistic tradition in project design creativity.

Taking into account existing monuments, preserved projects, archive sources, works displayed in museums, creative works of proclaimed Western Ukrainian architects and artistic designers, including I. Levynskyi, O. Lushpynskyi, T. Obminskyi, V. Nahirnyi, A. Zakhariievych, Yu. Pankevych, E. Kovach, M. Sosenko, M. Boichuk, O. Kulchytska, O. Novakivskyi, M. Stefanivskyi, and others, we have traced the reflection of certain tendencies and principles, in accordance with which the aesthetic and shape creating

basis of harmonious personified sacred object-spatial decoration of interior has been formed. The representatives of this group of artists became pioneers of the important process of formation and understanding of individual identity of design in sacred direction. The assumption is supported by modern solutions with post Byzantine flavor which are reflected in murals, iconostasis, and icons by M. Sosenko, M. Boichuk, P. Kholodnyi, Yu. Butsmaniuk; sculptures and liturgical object design of M. Stefanivskyi, Ye. Kovach, A. Koverko. The morphographic analysis of some patterns of murals and liturgical objects gives evidence for distinguishing certain important principles of spatial organization of monumental murals and object-spatial decoration of sacred interiors, which, unlike modern sacred objects, are deprived of chaotic spontaneity and stylistic dissonances. Three main principles which are conditioned by functional, compositional, and figurative-semantic requirements of formation of harmonious object-spatial environment of temples have been distinguished and characterized. Technical and technological aspects, in accordance with which artistic specificity and authenticity of artifacts can be identified, have been delineated.

Attention should be paid to the state of authenticity preservation of decorations in historical sacred interiors in the context of postmodernist conception formation of interior design of sacred constructions in the XXI century. While examining material heritage of object-spatial sacred design of that time, we can certify the fact of substantial destruction caused by ideological priorities of the Soviet regime. The preservation state of author's individuality in partially preserved precious elements of object-spatial decoration design as of the first quarter of the XXI century is not less tragic. In this process, the priority of destroying authenticity is dictated by superficial knowledge and divergent figurative and aesthetic conception of contemporaries, in particular priests and activists of religious community. This becomes the threat for dismantling, repainting, complete destruction or unprofessional renovations that significantly distort perception of author's coloristics, shape formation, texture of visual comprehension, integral harmonization of space, etc.

While elaborating the profound informative scientific-theoretical and visual-empirical database of the preserved samples of sacred temple decorations of the first quarter of the XX century, we can formulate and foreground the ways of integrating ethno-artistic traditions of the early XX century into historical and artistic foundation of modern design. For example, high aesthetics, harmonious stylistics, and expressive artistic and figurative features of monumental church works of M. Sosenko, in particular, the preserved authentic murals in the interior of Arkhystratyh Mykhail Church (1907-1910) in Pidberiztsi village, Lviv region, would ensure the possibility of outlining certain patterns that are revealed through morphographic analysis of polychrome structure on architectonic planes of interior space. Such analytics allows elaborating the algorithm of digital modeling, the application of which would serve as the applied tool in modern design and architectural practice oriented at formation of harmonious individual object-spatial decoration of sacred object interiors. In the context of modern object-spatial design of sacred environment, the useful sources of inspiration can be constituted by multiple unrealized project works of that time, the investigation of which would encourage interesting attempts of generating and retrieving partially lost and slightly primitive conception of sacred design.

## **SEGAL'S HOUSE IN LVIV: HISTORY, ARCHITECTURE, DESIGN, PRESERVATION**

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Segal's former lawyer's house is a landmark of the early (ornamental) secession in Lviv. It is characterized by an original composition of facades, unique preserved interiors and expressive silhouette, it is one of the urban accents of Shevchenko Avenue and is considered a model of prestigious housing in the early twentieth century.

The author conducted field research of the building, as well as analysis of archival and iconographic materials, publications in the press of the time. The aim of the study was to highlight the history and architectural features of Segal's house, in particular to identify the authors of the project and interior design (as well as manufacturers), to outline the problems of preservation and restoration.

The townhouse was originally built as a rental (profitable) for a lawyer Adolf Segal and his wife Mina, who also owned real estate in Drohobych, and whose current heirs now live in France. The house was built in 1904-1905 by the construction team of Michal Uliam and Zygmunt Kendzerski, but with a perfect planning and design decision, the magistrate did not approve the facade, considering it less aesthetic. Accordingly, Tadeush Obmynsky was invited – an architect who created the face of the Lviv secession and who later collaborated with the company of Ivan Levynsky. The new facade was immediately approved by the magistrate, but Uliam later submitted this building in the catalogue of his works, without mentioning the name of Obmynsky, which the outraged architect wrote in the press.

The planning of the building has a clear compositional structure that corresponds to the principle of design from the inside out, which is characteristic of secession. Thus, the compositional centre is a stairwell, located in the centre and which corresponds to the wings of a double spiral staircase in the courtyard. The premises located on both sides are clearly structured in accordance with the traditional principles of Lviv construction, where residential and representative premises were facing the main facade, and office and private premises were facing the courtyard. In accordance with the hygienic requirements of the early twentieth century each room was equipped with lavatories and bathrooms.

The composition of the facades is consistent with the principle of bionic atectonics of ornamental secession, which means lightening the base and increasing the saturation of the decor and the ingenuity of the silhouette upwards. The risalit from Shevchenko Avenue and the corner are completed with characteristic curvilinear secession attics. Initially, the silhouette of the corner was complicated by the presence of metal openwork vases (possibly jardinières). According to the secession principle of finding new and unique shapes, the openings of each floor have different solutions. The most interesting here is the so-called omega-shaped window, which can be considered a business card of Tadeusz Obmynsky in the Art Nouveau architecture of Lviv. The linear ornamentation of stucco and wrought iron elements on the facades is extremely attractive.

The interiors of the building demonstrate the principle of synthesis of spatial arts, characteristic of Art Nouveau. The lobby is very magnificent, the walls of the lobby and the spacious stairwell are covered with artificial marble made by Bernard Krulik's factory, and the columns are topped with lanterns (now not preserved). The huge window of the stairwell was decorated with painted stained glass with floral ornaments.

The interior of the room in the bay window on the second floor is most magnificently solved – obviously it was the living room in the apartment of the owner of the house. The upper part of the walls is decorated with a wide neoclassical sculptural frieze with dancers. In front of the giant window a winter garden with balconies was traditionally arranged. The decoration of the room is a marble sculptural fireplace with stained glass above it, made in the studio of Leon Apel. Not without the influence of Alfons Mucha's work in the centre of the stained glass window is a round medallion, in which a half-naked golden-haired girl holds a bird in her hand against the blue sky. The niche by the fireplace, as well as on the opposite wall is decorated with mirrors and textile panels, which depict women in dreamy poses in the middle of the garden. The flatness of the images, the presence of a contour, pastel golden-brown gamma is characteristic of Art Nouveau, and also indicate the influence of Japanese art. Iconographic materials show the presence of Art Nouveau furniture in the room.

The house has preserved stoves, each of which is an independent work of art in accordance with the concept of uniqueness of the Art Nouveau work. Some of them follow the graphic plots of Charles Mackintosh, while others show a fascination with the polychrome image of local plants (apple trees) during the secession. The furnaces were made by the Czech concern Hardtmuth, which also had a branch in Lviv.



The house has preserved bronze lamps, stucco, authentic patterned parquet, Art Nouveau window and door joinery, bronze fittings.

Segal's house is considered a pearl of Lviv secession, symbolizes the poetic and beauty of Lviv architecture of the early twentieth century. The high style of facades and interiors, the number of preserved elements and their holistic solution, the available historiographical materials call for maximum preservation, restoration of existing elements and reconstruction of lost ones. The best solution is to create a Museum of Secession, worthy of the best museums in Europe.



*Fig. 1. Segal's house. Graphics by the author*



*Fig. 2. Textile panel in the interior*

## **COLOR IN DESIGN OF RENAISSANCE INTERIOR (ON THE EXAMPLE OF LVIV)**

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This study identifies, systematizes and classifies the types of polychrome, as well as polychrome materials and techniques used in the design of the Renaissance interior on the example of Lviv. Lviv is a Ukrainian city, whose architecture is a UNESCO heritage, represents all architectural styles from the ancient Rus' period to constructivism and can be an ideal model for studying the phenomenon of polychrome in the context of a particular style. Due to the insufficient number of preserved objects, the phenomenon of polychromy of Lviv buildings of the XV – I half of the XVII century, or the Renaissance period, was not disclosed by researchers. However, field, archival and bibliographic research provide an opportunity to reproduce the basic patterns of development of polychromy in this period.

The purpose of this study is to identify, systematize and classify the types of polychromy, as well as polychrome materials and techniques used in the design of the Renaissance interior on the example of Lviv.

Polychromy of monuments of the XVI-XVII centuries. as the most remote in time requires protection, restoration and further careful research.

The design of the Renaissance interior used polychromy of building materials (alabaster and marble inlay in the Chapel of the Kampians, on white stone columns and portals of the rooms on Rynok Square, 2, 4, 21, Ruska Street, 4, alabaster altars and epitaphs in temples), as well as architectural and artistic polychromy. The accent of the polychrome design of the room was white stone columns and portals, painted completely or in a combination of blue, red, white and ocher colors, as well as gilding (37 Rynok Square, 2 Drukarska Street). Current studies of polychromy reveal ornamental paintings with floral ornaments, portrait medallions, etc. (4 Ruska Street, 6 Armenian Street). Simple grizzly bear paintings imitating diamond rust depicted on a plane (City Arsenal) or enhancing the slight relief of the ornament have been recorded (2 Rynok Square).

Wooden ceiling beams were painted using ocher, blue, white and black. Interior wooden doors and furniture were decorated in marquetry (Bernardine church), and also painted in marquetry (Boim Chapel) or contrasting blue and ocher. Based on the analysis of archaeological finds in the area of monuments of XVI - I half of the XVII century it was determined that the windows of residential buildings were filled with "moon" green glass with red inserts, and temples – with stained glass. The floor of this period contained clinker bricks, stone or ceramic slabs (14 Rynok Square). Furnaces were lined with tiles without glaze or glazed green, brown, as well as in the XVII century of multicolored (white, turquoise and yellow-hot colors on a gray-blue background) tiles.

In the interiors of sacred buildings stucco was painted in the opened colors (Boim Chapel) with a gilded background (Church of St. Mary Magdalene). Mentions of the decoration of the interiors of Bernardine, Benedictine, Jesuit churches, the Latin Cathedral, the chapel at the Dominican Church, the Golden Rose Synagogue suggest the existence of a continuous tradition of monumental painting in Lviv, the first evidence of which we meet in this period.

## **METHODS OF DETERMINING THE BOUNDARIES OF THE HISTORIC CITY CENTRAL PART**

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The historical space of the city, within which the most valuable architectural ensembles and complexes are located, is its most important architectural and artistic value. Preservation of its integrity is one of the first and most important tasks in the regeneration of the city. Historical cities often do not have all the necessary monument protection documentation developed. Therefore, it is important to popularize the understanding of what the central part of the historical city really is and how to define it.

Historically, the territory of the city center was considered as a midtown. Therefore, its configuration is the main criterion for determining the boundaries of the central part of the historical city. It should be noted that in cities where there is more than one market square (as it is in Buchach and Berezhany), the central part should include the territory that unites the boundaries of the midtowns formed around these two squares.

The historic midtown is considered as the territory of the city formed around the market square with surrounding buildings, and limited by defensive fortifications, including the territory on which these fortifications were located, means that it is the outer limit of the first line of the city fortification. Combining the defined territory of the city midtown with modern topographic surveying shows that its

border often passes through the middle of existing quarters. In order to preserve their integrity, these quarters should be completely included within the boundaries of the central part.

The modern central part of the historic city that needs preservation can be characterized as follows - it is an architectural and urban planning part of the city outlined by scientifically based methods, formed from the historical street network, quarters with preserved traditional buildings and territories provided for the revitalization of the historically inherited character of the environment, which covers housing blocks, which were fully or partially included in the territory of the historical midtown of the city and are not smaller than that.

Thanks to the conducted research, it was established that the boundary of the central part of the historical city should be formed by:

1. existing streets or natural restrictions.
2. historical streets that are currently lost, provided that the urban development situation allows their restoration.
3. boundaries caused by features of the terrain (banks, ditches, reservoirs, streams and rivers)
4. if the configuration of the housing block has an elongated shape and reaches far beyond the boundaries of the historical midtown, then the border of the central part must pass along the boundaries of the parcels of this block, following those that were within the limits of the midtown.

The established boundaries of the central part of the historical city will allow to avoid speculation about the value of the historical environment of the city and to develop a strategy for the preservation and development of the historical center of the city and its architectural heritage as a complex.

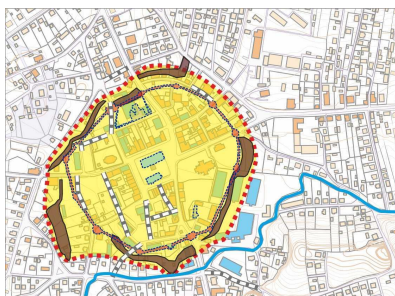


Fig. 1. The boundaries of the historic midtown

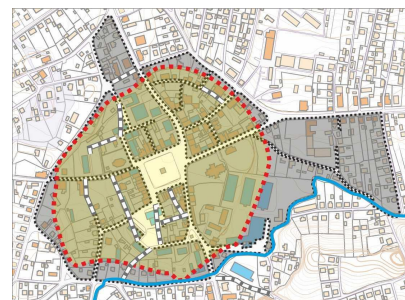


Fig. 2. Housing blocks that were within the midtown

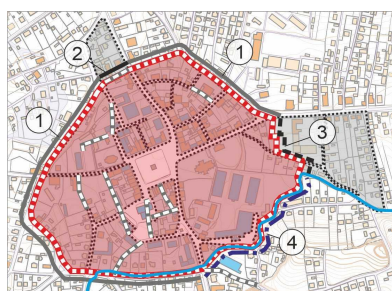









Fig. 3. Determined boundaries of the historic city central part

**Legend (common for Fig 1-3)**

-  - Rivers and streams;
-  - Preserved earthen ramparts;
-  - Lost streets;
-  - Hypothetical reconstruction of the city's defensive walls
-  - Conditional borders of the midtown
-  - Housing blocks that were fully or partially part of the midtown
-  - Boundaries of the city central part

# THE ROLE OF ORDER IN THE DESIGN OF THE FAÇADES OF PUBLIC ADMINISTRATION BUILDINGS IN LVIV OF THE HISTORICISM PERIOD

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The façades of public administration buildings of historicism era Lviv are notable for their show and splendor. To achieve this effect, architects often resorted to Renaissance and classical motives of the previous centuries, including classical order. Yet, a characteristic feature of buildings of the period is that their structural layout was different from the old forms and, even though the order was often applied to the façades, it performed a decorative function only, unlike in the previous historical periods.

Particular attention in the construction of public administration buildings was paid to façade design, which often incorporated Neo-Renaissance elements combined with classical and baroque motives. To accentuate the grandeur of the building and its importance, architects would make the main façades symmetrical along the central axis to attract the most attention. Architectural order is one of the most important architectural details and the foundation for the stylistic design of buildings, which is why it was often used to foreground the main entrance to administration buildings.

Having analyzed the use of order and its elements on public administration buildings in Lviv of the historicism period, we can single out the following peculiarities: monumental interpretation of order on the façades; use of order elements to accentuate importance, demonstrate significance and representation of public administration buildings; use of columns or pilasters of the colossal order on the central and lateral avant-corps; vertical sectioning of the façade with columns and pilasters; predominant use of Corinthian and Ionic order to decorate the facade; framing of second-floor windows with pilasters and columns.

Nevertheless, not just columns and pilasters were used on the façades of public administration buildings of the period described. Astylar order was also quite common, i.e., when the wall is divided into plinth, main body, and entablature without columns and pilasters. During the historicism period, order of columns was most often used on the avant-corps, order of pilasters was applied to avant-corps and lateral wings of the facades. In contrast, a stylar order was used to accentuate the general composition of the façade.

It should be noted that architectural order applied to public administration buildings in Lviv of the historicism period was used not only for decorative purposes – it had a specific meaning. Depending on the purpose of building, order and other means of architectural accentuation signified tranquility, harmony, and balance or drew attention to the splendor, grandiosity, and luxury of buildings. At the same time, the buildings were symbols of official government, consistently demonstrating its strength and stability.

# HISTORICAL ASPECTS IN THE FORMATION OF A NETWORK OF CLUB BUILDINGS IN LVIV

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The network of club buildings in Lviv has a long history. In the process of its development, it was closely intertwined with the activities of cultural and educational institutions that began to emerge on the territory of Ukraine from the beginning of the 17th century.

One of the oldest cultural and educational objects of Lviv is the Jesuit Collegium. There, since the end of the 18th century, it hosted performances of professional touring and local theater groups.

In 1783, the Greek Catholic Theological Seminary in Lviv started functioning. Here, the tradition of staging theatrical performances and other cultural events gradually emerged. The organization of these events also engaged the Ukrainian community of the city. This place was a center of attraction and enlightenment for Ukrainians, the cradle of their cultural life, until the National House was built on the ruins of the Old University in 1852. Until 1945, the building was a kind of club of the Ukrainian community of Lviv, where active life was booming and political, economic and cultural issues related to its activities were resolved.

The economic growth experienced by Lviv at the beginning of the twentieth century gave impetus to the growth in construction of public facilities and the expansion of the range of functions of existing cultural and educational buildings. Almost each of them included multifunctional halls where theater productions could be watched, debates and performances were held, and later, they also started acting as cinemas.

One of the best club facilities of that time was the building of the "Dnister" insurance company, erected in 1905, under a project design by I. Levynskyi, T. Obminsky and O. Lushpynskyi. It contained the premises of the bank, several public associations, including the Ukrainian sports union "Sokil", which received one of the first sports halls there.

In difficult interwar times, many different clubs were built in the effort of various social organizations or large enterprises. Some of the most famous buildings were the houses of the city's municipal workers and railway workers.

The Ukrainian community, contrary to the general tendencies in production of international architecture, tried to initiate the creation of public buildings with signs of national identity. The most striking confirmation of this fact can be found in the creative work of the famous Ukrainian architect from the interwar period - Yevhen Nahirnyi and his project design of the People's House in Bohdanivka area built in the 1930s.

With the advent of Soviet power, there was a change in approaches to the organization of the functioning of Lviv clubs. The vast majority of them became publicly accessible, such as through their professional affiliation. Thus, there rose the houses of officers, builders, and others. They were hosted both in existing buildings (the house of officers – in the the People's House) and in the specially built premises (Palace of Culture of the LORTA plant).

With the independence of Ukraine, the areas of culture and education faced financial predicament. Many club buildings have received new owners and have changed the profile of their activities. With the stabilization of economy and the development of culture, society shaped a powerful request for modern spaces for communication, learning, and recreation. To meet these needs, both newly built cultural and

educational objects (the center of Metropolitan Andrey Sheptytskyi at the UCU) and adapted ones (the center of architecture, urban planning and design "Tower") began to appear. An interesting phenomenon of recent years highlights the popular cultural spaces mainly integrated into residential buildings (the "Commune" co-working network, urban library at Ustiyianovycha Str., etc.). They play a significant role in the cultural life of the city.

In our time, social life has undergone changes and this has affected the functioning of cultural and educational buildings. New circumstances require a deeper analysis of existing historical sites and the search for new concepts that would meet modern demands.

## **WINDOWS AS AN IMPORTANT ELEMENT OF DEVELOPING AN ARCHITECTURAL CHARACTER OF SECESSIONAL BUILDINGS IN LVIV**

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For centuries, windows have been a structural element that makes the architectural character of historic buildings. The historical heritage of architectural monuments, preserved to this day, testifies to the important role of window openings in the composition of the facade of a building. Their shape and structure have undergone significant changes due to the development of architectural styles and technological advance, which makes them an information carrier for the time when the building was erected.

Windows are among key structural and decorative elements on the facades of buildings in the Lviv's architecture of the early twentieth century. A variety of shapes and sizes, types of framing and division and, finally, the possibility of arranging windows give special expressiveness to the facade and affect its compositional solution.

The peculiarity of the windows of secessional buildings in Lviv is the shape of openings and decorative ornaments. In particular, window openings are often rectangular, less often arched, round, horseshoe-shaped (e.g., buildings located at: 4 Hryhorenka Str., 4 Shevchenka Av., 19 Antonovycha Str., 14–16 Levytskoho Str.), occasionally doubled and connected with a hood mold, and arrow-shaped openings were used at the late stage of secession. In general, the diversity of opening shapes is due to the decorative framing of windows, i. e. specific archivolt.

The most abundant decoration of windows dates back to the early stage of secession (before 1908), when the architects of the New Style were looking for a new ornament. Windows of secessional buildings are framed with floral ornaments with local plants (flowers of cornflowers, golden daisies, sunflowers, daisies, smooth flowing lines of leaves and stems, chestnuts, etc.) used as prototypes; stylized classical motifs of former styles (a mirror, a castle stone, profiled platbands, hood molds, volutes, etc.); geometrized (circles, squares); zoo- and anthropomorphic motifs (masks of men's and women's faces), and folk ornaments.

The composition of secessional facades is based on the principle of plant growth. Accordingly, the plane of the wall has a vertical composition development, so the ornamental filling of the decor is built in the final part of the facade. We can observe the framing of windows with a molded decor already on the 1st, 2nd, and 3rd floors, considering on the number of stories.

Secession is characterized by a free and asymmetrical window arrangement. Different forms of window openings and decorations were used within the same building. Various sizes and shapes of window openings also contribute to the rhythmic composition of the facade.

The topic of historic windows is extremely relevant today, when the most common manifestation of neglecting the historical character of a building is replacing the original wooden window joinery with plastic, which often leads to a complete change in window shape, damage, or elimination of molded window frame elements. Destruction and distortion of certain elements of a building, in particular windows, leads to irreparable loss of its historical and architectural value. Preservation of architectural heritage for future generations is a necessary prerequisite for the urban development.

## **URBAN ENVIRONMENT IN THE CONDITIONS OF MIXING MODERN AND POSTMODERN WORLDVIEW AND EVALUATION OF ITS QUALITY**

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Observation of processes in modern urban planning suggests that there is a certain contradiction between the natural development of urban fabric and the sources of postmodern formation. Its presence is best illustrated by the absence of any significant concepts of the ideal postmodern city, even in the form of an artistic utopia. This fact is in stark contrast to what was happening in the days of modernism and earlier in the pre-modern era, when the creation of their dream cities was quite a popular genre.

This fact can be interpreted in such a way that the issue of the quality of the urban environment cannot be considered only within the framework of any one worldview (modern or postmodern). The prospect of solving urban problems in the future lies in their synthesis or mixing.

In this regard, for the development of criteria for assessing the quality of the urban environment are important factors that on the one hand are not a reproduction of ancient feudal styles, and on the other - meet the demand for communication space.

Scientific understanding of such a space is based on a large number of studies, the analysis of which makes it possible to make the necessary generalizations. However, an important part of the assessment is the ability to meet the expectations of a person immersed in the world of communicative culture of the early XXI century. The victory of postmodernism over totalitarian ways of perceiving the ideal gave rise to the search for harmony in diversity, and the experience of events that have become popular over the last decade has shown that diversity is the leading criterion for a positive perception of living space.

The valorization of variability of impressions encourages us to talk about the hypothetical manifesto of the new city as based on the priority of divergent thinking. According to the analysis of expectations that public opinion offers to urbanism, there are at least three areas of divergence: variability of the chain of impressions caused by different temporal authenticity of environmental elements, variability of impressions due to diversity of architectural morphogenesis, variability of impressions due to mixing goals.

Thus, the concept of the quality of the urban environment is a changing category that needs to be constantly updated depending on the prevailing values of the society that perceives it. Therefore, this assessment should be divided into related but fundamentally different parts: a) immutable - *individualistic* (the idea of comfortable living conditions of the individual) and b) variable - *informational* (dynamic image of the city as an object of observation).

In addition, in modern circumstances, the category of quality of the urban environment can not be determined within a single stylistic approach. It is necessary to consider three types of experience on which the urban discourse of the early XXI century is based, namely: on the one hand the principles of postmodernism, which are confirmed by the processes of the late XX - early XXI centuries: a) perception of architectural form as information; b) rejection of the exclusivism of a project worldview (totalitarianism). On the other hand, the universal standards of living space formulated by modernism are: a) climatic orientation; b) transport and recreational integration; c) economic optimization. From the third - values and requirements that arose at the turn of the XX-XXI centuries, such as: a) self-sufficiency; b) environmental friendliness; c) spontaneity.

It is the tendency to variability of impressions that should be the basis of the manifesto of the new city, based on the priority of divergent thinking. Analysis of the expectations that public opinion offers to modern urbanism, allows us to identify at least three principal areas of divergence: a) time (assumes the variability of the chain of impressions caused by a sense of different temporal authenticity of environmental elements), b) forms (assumes variability of impressions due to the diversity of principles of architectural morphogenesis), c) purpose (assumes variability of impressions due to mixing of goals of environmental forms).

## **IMAGES AND SYMBOLS IN OLENA KULCHYTSKA'S GRAPHIC WORKS ON THE SUBJECT OF ENSLAVEMENT, THE LIBERATION MOVEMENT, AND THE TOPIC OF WAR**

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1. Olena Kulchytska lived in a period of time when she was a witness to military actions on the territory of Ukraine, the enslavement of Ukrainians, and the liberation movement. Took close to her heart and they were vividly reflected in the artist's work.

2. The number of Olena Kulchytska graphics that were studied:

- Cycle of engravings "Ukrainian Sich Riflemen (USR) 1914-1915." - cover of the album "USR 1914-1915", "Brave Galician Regiments", "Ukrainian Sich Riflemen", "Volunteer Hutsuls", "Carpathian Female Eagles", "Fallen Rifleman", "Under a Strange Sky";
- Graphic works "On guard", "After the war. Life wins", "Blood of the shooter", "Unknown name", "Oh, Mother of God of Ukraine!", "Sketch of a composition", "Theseus", "Willow over a stream in winter", "Slavery", "Peasant uprising".

3. Features of graphic works:

- Simplicity;
- Conciseness;
- Simplicity of expression.

This manner of delivery most aptly conveys the mood of the time.

4. Subject:

- Despair, enslavement;
- Liberation movement.



#### 5. Styles:

- Art Deco. Mostly all graphic works on this topic are made in this style, but with certain ethnic variations;
- Secession. An example of secessionist painting is the icon "Oh, Mother of God of Ukraine", this style can be traced in the ornamental decor, the layout of the icon in a square, color scheme. Unfortunately, the location of the icon is unknown and it can only be seen in reproductions.

#### 6. Images of people:

- Sich Riflemen;
- Peasants are rebels;
- Mother and child;
- Christian figures (Mother of God, Jesus);
- Mythological figures (Theseus) in 1928, the linocut "Theseus" was created, here the plot of the ancient myth about Theseus is interpreted in a new way, Theseus raises a stone under which a saber, a helmet, and a mace are hidden - symbols of Ukrainian statehood, the insubordination of the Ukrainian people and the desire for independence. Viburnum sprouts from under the stone, as a symbol of Ukraine itself.

7. Symbols. In her graphic works, Olena Kulchytska uses symbols as visual messages. These symbols have been enshrined in our culture since Slavic times, they are recognizable and understandable for Ukrainians, and they are a means of the identity of our culture.

- The cross, as a sacred symbol, as a symbol of rebirth after death;
- A bird is a symbol of eternity, the immortality of the soul, there is a belief that the soul can return to our world in the form of a bird;
- Viburnum is a symbol of Ukraine - mother. Viburnum fruits are a symbol of the courage of the people who fought for the liberation of their homeland. Red viburnum berries resemble drops of blood in shape and color, so they have become a symbol of bloodshed for Ukraine's independence among Ukrainians. This is directly illustrated by the linocut "Shooter's Blood", where the blood of a wounded boy drips out in the form of viburnum berries. Viburnum fruits also symbolize the immortality of the family;
- The willow is an ambiguous symbol, it symbolizes the tree of life, the young willow is a symbol of the world, and the old one - is the anti-world, as well as the end and new beginning, death, and life. In her graphics, Olena Kulchytska refers to the image of a willow tree, and one can draw a parallel that the willow tree symbolizes the revival of Ukraine after its decline;
- Birch, is also an ambiguous symbol. It is believed that birch is the soul of a dead person, it can be a symbol of sadness, death, and resurrection. Therefore, crosses were often made of birch wood. Birch tree crosses can also be seen in Olena Kulchytska's graphics. In combination with a viburnum and a bird, a birch cross is depicted on the etching "After the war. Life goes on", where a visual message about the continuation of life is read from the symbols used by the artist;
- Poplar is a symbol of the tree of life, native land, freedom, sadness;
- Embroidered ornaments on clothes, as a sign of the cultural identity of people depicted in graphic works:
  - a) The cross is a symbol of Resurrection;
  - b) A rhombus is a symbol of the fertility of the earth;
  - c) A square is a symbol of the four sides of the world;
  - d) Plant motifs - purity, the prosperity of the family, and life. On the icon "Oh, Mother of God of Ukraine!" the maphorium of the Mother of God is entirely decorated with floral ornaments.

These ornamental motifs are most often found in the graphic works of Olena Kulchytska.

- Elements on clothes:

Oak leaves - courage, power, nobility, pride, oak is symbolically associated with fire and lightning. The woodcut "Brave Galician regiments" depicts Sich riflemen, whose caps are crowned with oak leaves.

- a) The poppy is a symbol of the sun, infinity, will, pride, and protection from evil forces, the guy is a Cossack, blood. On the "USR" woodcut, Sich Riflemen are depicted with poppy flowers on their caps;
- b) The emblem of the Sich Riflemen, which can be seen in the graphics of Olena Kulchytska on this topic, and which is used as a fastener on the maphorisa of the Mother of God in the work "Oh, Mother of God of Ukraine!".

8. The color scheme is black and white, to achieve expressiveness and tension, to focus on the main thing, and convey the mood of the time. Sometimes, Olena Kulchytska uses a gamut of 2-3 contrasting colors when expressiveness and tension are needed, as in the work " Riflemen's blood", or

nuance, as in "Oh, Mother of God of Ukraine!", where the calm atmosphere of the icon needs to be emphasized.

9. Olena Kulchytska's graphic works accurately and deeply conveyed reality thanks to the artist's sense of Ukraine, art, and her use of images and symbols that are understandable to every Ukrainian, because they have been known to us for centuries.



*Fig. 1. 1914-1915, icon, graphics, reproduction*

*Fig. 2. 1920, graphics, paper, colored linocut*

## URBAN IMPULSES AS A MEANS OF CREATIVE SPACE FORMATION

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Nowadays, concerned citizens of the world seek to understand how space works and even do something to improve it.

American sociologist and economist Richard Florida, best known as the author of the theory of the creative class, analyzes society as an influential component of modern cities. According to his research, the key factor in the successful economic development of cities and regions is the creative elite. One of the manifestations of its creativity is the formation of various temporary spontaneous settlements.

In the book by R. Merlot, F. Vera, H. Mayoral "Ephemeral urbanism, cities in constant motion", the authors consider various examples of spontaneous urban formations, as well as their growth under the influence of natural and anthropogenic factors. In particular, the authors highlight the following spontaneous factors of "ephemeral" cities: celebration, cooperation, self-discovery, influx of refugees, military activity, religion, disaster. All of the above mentioned cases can be the initial impulse for the creation of a new settlement, of varying duration.

The definition and conceptualization of such temporary impulses can take the form of cooperation between the municipality, the initiative group and the investor, whose expenses and risks due to the fact that these are usually one-time and temporary events, are significantly reduced compared to investments in, for example, capital construction.

The mechanism of activation of the temporary impulse, which results in the emergence of a settlement, can be illustrated by the example of a settlement that occurs annually for a short period of time in the Black Rock Desert (USA). Up to 80,000 people settle here during the week (as of 2019) - participants of the Burning Man festival.

The settlement of the Burning Man festival is somewhat reminiscent of futuristic schemes of mature modernism or the vision of "ideal cities" of the Renaissance, but its functional content is closer to the "countercultural" settlements of the 1960s and 1970s, like Arcosanti by Paolo Soleri, or Christians in Copenhagen, who experimented with organizing urban settlements on a new socio-economic basis.

The prototype of the "Burning Man" in Ukraine was the event "Magic Forest" (Fig. 1,2). In 2020, "Magic Forest" received the status of the official regional event of "Burning Man". The culture and values of "Magic Forest" are based on the principles of "Burning Man" - community, respect for nature, lack of money, lack of advertising, creativity, self-sufficiency, freedom, responsibility. Like-minded people form 15 thematic camps and 12 large installations, which, create space for the experiment of a new form of social organism. The inner ring of this temporary settlement, free from construction, is a kind of social center designed for public exhibitions and programs, another area is formed for the residence of participants, in the shape of a concentric circle.



*Fig. 1. Camp and installations Magic Forest 2021 - REBORN. Location: lake, Trostyanets village, Lviv region. Author of the illustration: Kvasnytsia R. Access source: <http://magicforest.com.ua/>*



*Fig. 2. Installation Magic Forest 2021 - REBORN. Location: lake, Trostyanets village, Lviv region. Author of the illustration: Kvasnytsia R.*

The temporary impulse of such a settlement creates an exchange of impressions from different forms of personal creative self-expression, the culmination of which is the burning of a giant sculpture. All kinds of commercial activities and money exchange are prohibited, and the participants live with their own stocks of food and household items, or as gifts from other residents. The territory is located on a certain suburban landfill, which conditionally ends the area of the established rules.

Thus, there is a gradual information "capitalization" of the idea of settlement, with the promotion of a platform for the creative class from different regions of Ukraine and other countries.

Observations of the life of temporary public spaces show that a comfortable environment is determined not so much by landscaping or design objects, but by the direction of the entire performance by organizing a life scenario.

In the 21st century, cognitive urbanism is becoming one of the most relevant systems of scientific knowledge, combining ideas from sociology, psychology, geography, cultural studies and other disciplines for use in architecture, urban planning and design.

## **CALIGRAPHIC LETTER: NATIONAL FORMS AND APPLICATION PRACTICES IN MODERN DESIGN**

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In recent decades, in the context of the intensification of cultural interactions in the discourse of art history, the issue of preserving national identity in various artistic practices has increasingly appeared. Researchers agree that the condition for preserving the identity of ethnic culture is the further development and integration of its traditional values into modern global culture. One of these values, when it comes to the design of visual communications, we consider traditional for many ethnic groups calligraphic writing. Calligraphy has acquired specific features in the context of Eastern, Arab and European traditions, and in some countries has become a stylistic field of artistic practice and has received the highest status among the plastic arts. Until recently, the formative basis of calligraphic writing was clear prescriptions of rules and canons. Today, in the process of solving current communication problems by designers, these canons and rules give place to creative interpretation, search for original, unique in formal qualities of font forms and rethinking them in different thematic and semantic configurations.

The works of designers analyze the space, image structure, rhythmicity and plasticity of calligraphic symbols, articulate the potential for the formation of a new aesthetic integrity. A wide range of stylistic, formal-plastic, technical and figurative characteristics, originality and authenticity of graphic language are found in accidental font compositions, in logos and elements of corporate identification, in poster art, newspaper and book and book graphics, multimedia design. subject environment. As a result of the creative-analytical process, modern calligraphic font composition often appeals to the viewer on a par with the work of art.

In calligraphic aesthetics, each of the traditions has its own interpretation of the creative act, different interpretive and communicative nature, different spatio-temporal perception. Even the most canonized calligraphic writing of the Eastern and Arab traditions outside its own semantic context, along with the religious-symbolic function, clearly emphasizes the artistic-decorative function. The latter has become a source of reception for contemporary artists and designers already in a multicultural environment outside a certain geographical context. Based on Arabic, Eastern and European calligraphic heritage, they use formal and morphological characteristics of writing (Gothic, cursive, elm, Chinese, Japanese and Arabic calligraphy) as geometric and ornamental abstractions in various areas of their own project activities - logo design, outdoor advertising, animations, street art.

In subject-spatial design, conceptual calligraphy is represented by two opposite approaches: the first involves the use of ready-made calligraphic symbols to decorate the space without changing the quality of the calligraphic sign; the second is the development and creative rethinking of traditional calligraphic elements. The purpose of this is to transform them from a medium of constant information into

a full-fledged design object without appealing to the content of the text. Another area of modern use of calligraphy is the experiments that contributed to the transition from plane-space plastic to space-time synthetic arts. Conceptual calligraphy becomes an area in which the main emphasis is on action, and the creative product becomes performance, in a process that synthesizes the means of literature, drama, animation, film and music. Calligraphic symbols are used as material, and digital tools become a means of visualization and demonstration, which allows a new understanding of the relationship between text, time and space.

It can be concluded that modern formal-plastic interpretations of classical calligraphy in design practice express both the creative positions of their authors and the overall intellectual and emotional coefficient of design in each national culture.

## **FACTORS OF EMOTIONAL INFLUENCE OF STOP-MOTION ANIMATION**

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Today, the development of technical innovations is rapidly updating the functional system in the whole complex of visual communicative practices, changing both the public reception of their perception and general approaches to the formation and implementation. The animation industry is changing naturally, demonstrating new forms, which feature not only computerization and expansion of the scope, but also the intention to enhance creativity in traditional forms. As a phenomenon of screen culture, animation today ceases to be a technical way of shooting and a method of entertainment and is formed into a new independent form of audiovisual art with its language, means of figurative expression and emotional impact. This art is able to create a different artistic reality in a different space-time. As part of this process, in search of emotionally effective visual forms for various communicative purposes, traditional technologies of stop-motion animation are gaining intensive development.

Stop-motion is a frame-by-frame animation that is shot sequentially, and the subject of the shooting are material objects made of a physical material (plasticine, bulk materials, any objects that are easily exposed to mechanical impact of the animator).

The process of creating and the result of stop-motion animation demonstrates the interaction of traditions and innovations, the synthesis of familiar art forms and technical experiments. In general, all stop-motion animation techniques have always been considered experimental. Formed over a century, the World Video Archive highlights several key technical areas of time-lapse animation that are formally comparable to current trends in computer 2D and 3D animation, such as working with in-plane images and three-dimensional objects in a stage environment. One of the first historically composed is the animation technique "translation", which involves the movement of two-dimensional drawn puppet figures, carved from individual parts. Emotional and visual effectiveness of the translation technique is achieved due to the possibility of using complex detailed characters and the uniqueness of the visual message of the moving series. The animation series remains within the two-dimensional plane. The same planar language is characteristic of the so-called "loose" animation, created by the method of frame-by-frame shooting; for silhouette animation; for painting on glass; pixelation techniques (animation of consecutive photos). These techniques allow you to create animated films with deep ideological content and strong aesthetic and emotional effect, because they attract unique ways of influencing the viewer's consciousness and use artistic and figurative means inherent in classical art techniques.

Puppet, plasticine and object animation techniques make it possible to go beyond the plane and form three-dimensional moving scenes in the environment. These techniques present the work of an animator designer with real material forms and objects that are consistently changed and moved in the frame and in synthesis with additional means of influence (scenography, directing, audio) form a visual story. The viewer's emotional perception is influenced by the right idea, the plot line, the staging, the design of locations and props, the overall organicity of the audiovisual series. Unlike puppet and plasticine animation, the subject does not require additional work on the creation of props and manipulates the finished objects in the frame. This technique is today in demand due to its simplicity, relative budget and visual effectiveness, especially in the advertising industry, as it allows to convey the advertising idea through the focus of events in a real environment and real characters.

## **MEANS OF SENSORY INTERACTION AS A RESULT OF TRANSFORMATION OF LIGHT EFFECTS INTO COMMUNICATIVE AND INTERACTIVE INSTALLATIONS**

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With the development of technological capabilities and the modernization of spatiality, there is a demand for the design of useful interactive objects. An important role, in this sense, is played by lighting design, which is based on the following aspects: aesthetic perception, energy efficiency and economy. This directly affects the emotionality and well-being of the observers, enriches and develops the outlook of the individual. Currently, light technologies can provide users with a number of possibilities that actively learn to interact with them.

Therefore, an important problem is the procedural and functional structuring of data related to the complex of modern technologies in the field of light and their psycho-physiological impact directed at the individual thanks to the design, their subsequent useful perception and action.

In this context, the following four promising directions of research can be distinguished: determination of the main psycho-physiological factors that provide light installations; identification of the field of predominant application light installations; consideration of the classification of types of light effects based on the analysis of existing proposals and findings; discovering how traditional lighting techniques are changing in response to new technological possibilities of light and user needs.

Analysis of design practice shows that light installations in design of a modern, positive and effective environment should be considered as a factor of the diversity of the spatial environment of the subject and can be divided into the following groups: a) dynamic (kinetic) systems (change in movement of the composition, change in color, change in shape); b) sensory systems (interaction by touch, voice, movement, etc.); c) combined systems (interaction or combination of different systems).

It is important to note that light installations play a role of interactive and communicative objects in the following functional areas: commercial and economic, thematic and festive, recreational, household

and everyday life. According to scientific generalizations, it should be noted that light installations are subject to certain principles:

1. the idea of the integration of light elements as a component of the interior environment;
2. the principle of visual-tactile user contact with elements compositions;
3. the idea of scenario planning of lighting effects;
4. the principle of interactivity of the light-colored environment.

A variety of classifications of lighting systems are used in certain areas and specific directions. They depend on the need of the organization in one or another context, at one or another time. The most common examples can be samples in the design of light installations in a social environment, which are created under the influence of complex solutions, and usually perform the following tasks: functional (ensuring functional conditions in the right place), decorative (ensuring aesthetic appearance and artistic expression in the right place), architectural (underlining the details of architectural plasticity) and economic (providing economic properties). The mentioned specificity is observed, in particular, in the works of the following groups and artists: Preciosa, Antonin Fourneau, Daan Roosegaard, Olafur Eliasson, Hernando Barragan, Helen Evans and Heiko Hansen and others.

Light effects have a significant impact on psychophysiological needs and feelings of the individual. They form a certain light-space and directly affect:

- a) emotional experiences (sense of security, loss of reality, peace, excitement, delight);
- b) physiological comfort (cozy-uncomfortable, comfortable-uncomfortable);
- c) psychological state (calm, harmony, energetic state);
- d) aesthetic feelings (impressions).

By the method of synthesis, generalization of research results and observing existing objects, it is determined that light and its technologically advanced capabilities are often transformed for sensory and interactive applications in any environment and in any field.

The generalized classification of existing modern installations, based on the analysis of the type of human interaction, looks like this:

1. Dynamically variable (kinetic) systems (change in movement of the composition, change in color, change in shape). Allow the individual to participate in changing the work dynamics of the facility.
2. Sensory systems (interaction by touch, voice, movement, etc.)
- d.) Allow to independently contact the object on which the action is assigned.
3. Combined systems (interaction or cooperation of different systems). Allows you to combine the capabilities of various system capabilities to ensure the desired result.
4. Traditional lighting techniques changing with new ones technological possibilities of light and user needs With the modernization of technology, there have been many design developments with using LED, sensor and other technically advanced ones opportunities They changed the environment of the modern world by making it global and interactive. Along with it, it transformed communication between people. It is established that light projects are aimed at cooperation of existing communicative and interactive objects, as possible use or interact with the entity.

# DESIGN AS A FACTOR IN THE FORMATION OF ENVIRONMENTAL CONSCIOUSNESS OF SOCIETY

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Nowadays, design, as an universal phenomenon of project culture, is an important tool of influencing the values and worldviews, ideals, norms and ways of modern man's life. It's difficult to overestimate its role in various aspects of human existence. By all means, the focus of design and its tasks is a person with own spiritual and material needs. And designers, as important participants in the formation of modern society, are responsible not only for the material quality of products, but also for their ideological content and messages that are embedded in them and become widespread.

Modern realities demonstrate dynamics and profluent changeability of the world, manifest rethinking values; meanwhile, design has to be flexible and adaptable to consumer needs and responsive to current global issues and challenges. We live in time of natural and man-made disasters as well as environmental instabilities. This is primarily due to the not always conscious and proper activities of mankind. The era of "consumerism" has led to disastrous environmental consequences. Analyzing the society world widely, we observe the cultivation of material goods, excessive consumption and production of things. To some extent, the trends of commodity fetishism are traced to the design as well.

Hence, one of the key tasks in design is to implement the principles of environmental friendliness. They provide application of appropriate design principles, energy-saving tools and systems, natural materials, reuse of products, recycling; production of long lasting goods. It is vital to take the right approach to the goods consumption, its optimization and design, which will ensure the implementation of primarily human needs, will be focused on the development of "human ecology": education of physical and mental health, nurturing moral, harmonious, and creative potentials of the individual.

Thus, outlining the range of consumer needs by differentiating the quantity and quality of manufactured products, advancing society in the direction of integral thinking, forming a relevant worldview, in which their spiritual, creative and intellectual development comes to the first place instead of excessive attention and attachment to material values. An the last one, in our opinion, is an important task of environmentally friendly design.

The following task in ecologically orientated context is the preservation of cultural heritage and its diversity. In our opinion, this would enhance development of national and ethnocultural identity in modern designing. This approach involves the use of local folk traditions, regional technologies and materials, dialogue of cultural potentials of the past and the present, which is the key to the formation of the original, harmonious and spiritually valuable environment of human life.

Design, as a leading project activity, has a significant impact on the formation of ecological society, should become more conscious and universal; actively help to solve inclusion problems; demonstrate and declare with their products such fundamental values as cooperation, integrity and humanity. Its goals should be personal growth of individuals, which involves spiritual enrichment, moral and aesthetic education and creative development of consumers, awareness of universal values and meanings of life: goodness, love, beauty, freedom, harmony, self-respect and gratitude. These universal values underlie the spiritual foundations of design creativity and the development of an ecologically healthy and protected society.



# THE ROLE OF LIGHT IN THE DESIGN OF THE OBJECT ENVIRONMENT

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The sanctity of light is a miracle, and no image, no life and no existence is possible without it. The God created flora and fauna, and the human became the highest form of existence. The humans obtained intelligence, intellect and abilities, manifesting themselves evolutionarily at the top of the biological existence. Their skills and talents have contributed to the demand – the social necessity and human development in the space and eternity. Only the three-dimensional object environment shapes our consciousness, enables orientation in space and time, creates a visual effect of volume and environment, and realizes the hologram of form and volume. This is possible only in the presence of the light with its natural origin – the Sun, without which the existence on the Earth is impossible. The Sun initiates the movement – the movement of the coordinate variation, the origin of coordinates in the nature and the artificial environment. The light coordinates the spatial orientation in the natural environment, without which a human cannot exist and create material goods or objects – elements of the object environment. Only in the presence of the light people can communicate in the ionosphere, work and fill in the object three-dimensional environment, adding functional and ergonomic parameters to it. The light creates a comfortable object environment, positively and vitally influencing the factors of our existence in nature. We have a wonderful term for the reflection of life – a photograph (*“svitlyna” in Ukrainian from the word “svitlo” – light*) as a reflection of objects in time and space. The photon-quantum basis of the light differentiates color spectral images of objects or volumes, their temporal and spatial relationship in the universe by fixing objects in the world information bank. The light directs the vector of eternity and development, projecting it over time. This is how the specific relationship between the time, epoch and age or period is traced and analyzed.

The evolution of progress, the development of the society do not have any sense without the visual-light reaction of the mankind to light and time factors of perception of the three-dimensional object environment, its holographic stereoscopy with the basics of the spatial-tonal perspective. The perception of the distance, volume and space is possible only in the presence of the light. Without the light, it is impossible to perceive temporal signs, spectral color images with their spatial position. The basics of the design transformation and progress are not possible and cannot be realized without the light. The light creates a shadow boundary, a factor of visual perception and a visual sense of the form and volume. The present of a light source creates a realization of the shape of space and material volume. Only with the help of the light it is possible to feel and perceive the space, the existence of a virtual learning process with its understanding. Energetic stimuli of the ocular fundus help to understand the response of ganglion cells, material contours of objects and their large-scale geometric quantities, which are overlapped by the spectral refraction of specific parts of the spectrum. Without the light, the process of science as such is simply impossible.

The light plays a dominant role in the principles of the higher design education. The use of innovative technologies has significantly enriched the visual capability of the design, what simplified and accelerated the process of the scientific approach. In these conditions, the process of design of the object image significantly accelerated. The change of the layout fundamentals for dynamic computer technologies

simplified and improved the light-and-shadow and color basics of the design. Graphic possibilities of the creation and manifestation of the object environment in space and time are organically manifested in the creation of forms in the surrounding environment. The combination of the range of spectral perception of artificial forms and the natural landscape environment is the basis of the decoupling of the white color through a triangular prism on the spectral basics of the psychological impact of the action and perception of the viewer. In general, this factor is formed on the basis of physical and mathematical principles that in our consciousness are identified as the light – as psychological aspects of the color characteristics or the reality of the reaction of our existence in the society, space and time.

## **THE DISNEYLAND EFFECT: MODERN FUNCTIONS OF THE ARCHITECTURAL ENVIRONMENT**

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Nowadays, the humankind is experiencing radical transformations, especially in the sphere of the information environment and technical development. This fact has led to the emergence of new and the development of existing functions of the architectural environment, which did not develop so rapidly before. In general, the architecture was often designed to impress the audience and served as spectacular decorations for secular or religious celebrations. However, today almost every person can organize a celebration, event, flash mob and, importantly, not only for physically present viewers, but also in the cyberspace. The global enthusiasm for social media created a phenomenon of “Instagram architecture”, increasingly mentioned by architects around the world. Now, it is not enough for the architectural environment to be comfortable, beautiful and durable. It must also be photogenic. Namely the virtual, photographic and video impressions about an architectural object or an environment that advertises this object spread information and encourage people from all over the world to visit it. It is often the case that the photogenicity becomes more important than functioning of an object in the real world. An example of such situation can be, in particular, the Monster Building in Hong Kong (China). Despite its terrible living conditions, the object has become a popular background for making photos. The importance of the photogenicity of the architectural environment was also realized by New York architects, where The Vessel Staircase was constructed for making spectacular photos of the city panorama. It should be noted that this completely functionless building is extremely popular with visitors. In these conditions, the characteristics of the visual attractiveness of the architectural environment in all of its aspects become very important.

At the same time, the entertainment industry is gaining an unprecedented scale around the world. The development of the cinema in recent decades led to a situation when the virtual reality penetrates into the real architectural environment. This effect was for the first time discovered on the architectural and urban scale in the process of creating the Disneyland Park. Cartoon architectural objects were embodied here and filled with “living” fairy-tale characters. Currently, we can increasingly frequently witness a situation where this “Disneyland effect” is beginning to spread around the world. We can see how the architectural environment becomes the scenery for movies and gains a special popularity with tourists, while the architectural spaces themselves are complemented by animators disguised as fictional characters. On the other hand, the scenery created specifically for filming movies now functions as a separate architectural environment, where one can feel oneself like a fairy-tale hero. An example of this phenomenon is Hobbiton in New Zealand, which was created for filming of *The Lord of the Rings*. The desire of many people to materialize the virtual world, as well as the availability of many opportunities and resources for realization of such ideas, challenges the architecture to perform the role of materializing of the virtual reality and the ability to move from direct functional and aesthetic functions to functions of the theatrical and cinematic scenery. We should also take into account such new characteristic of the

architecture as the interactivity. The more a person can interact with an object in an unusual way, the more emotions he or she will receive from it. Since the society is currently more and more willing to gain new impressions, the above-mentioned characteristics of the architectural environment should be taken into account in the process of development of design solutions.

## **DECORATING IN THE CONTEXT OF THE PERCEPTION OF THE SCHOOL UNIFORM**

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The paper presents the concept of decorating school uniforms, the scope of this topic research, and its meaning. The decorating of a school uniform is a creative process of generating a holistic aesthetic concept for a symbolic and stylistic addition to the volumetric-spatial forms of a suit. Decoration elements are not independent, separated from the product's composition, but on the contrary, serve as a harmonious addition to the integrated pupil's appearance [1].

Two types of decorative elements are important for the perception of school uniforms, which serve as means of identification and participate in forming the appearance. Elements of decoration of the first type are fixed on the clothes and turn into a means of identification (for example, a school emblem), forming the perception of a school uniform as a business style uniform. Decoration elements of the second type (flounces, ruffles, embroidery, etc.) determine explicit figurative-stylistic and decorative properties of a school costume. Practically, decorative features in school clothes are optional (pockets, fasteners, cuffs, and others). However, they bring the form to the level of a work of art, affecting and forming the socio-cultural environment.

The decoration of a school uniform carries the information about its owner, shows the dynamics of changes of an attitude to the pupil, and the educational process in general. Since the 19th century, decoration has not been an obligatory attribute in school uniforms. It was limited only to buttons and pockets, which played a purely functional role. With the development of materials, technologies, and socio-cultural trends, the attitude to decoration has changed. The decoration needs to be considered from psychology, pedagogy, image-making, and design points of view (table 1).

Artistic decoration of school uniforms is used to form an aesthetic sense and decency, educating levels of perception of the environment (detection, discrimination, identification, cognition through means of artistic expression) from psychology and pedagogy points of view. The decoration of the school uniform contributes to the education of the pupil's taste, which supposes a sense of the harmonious organization of the content and visual elements of the form, and, consequently, causes the development of the culture level [2]. Thanks to the decoration, the symbolic solution of the school uniform is generalized, in which the appearance acquires perfection and national peculiarities.

From the point of view of image-making, the decoration of a school uniform is interpreted as a symbol that evokes associations with the school and the learning environment, which is formed in the minds of children [3; 4]. Today, school uniforms with decor are seen as a kind of dress code. The school uniform is not only comfortable but also expresses certain rules and traditions of the state, ensures the formation of a positive impression.

From the point of view of the design, decorating in a school uniform involves the formation of an aesthetic concept of a holistic figurative and stylistic solution that combines aesthetic, functional, ergonomic, technological, and semantic aspects of design. A school uniform with appropriate decoration

acquires emotional and national features. The visual appearance of the pupil, complemented by appropriate behavior, becomes organic with the educational space.

So, we examined the concept of decorating school uniforms through four areas of research, namely through psychology, pedagogy, image-making, and design.

Table 1

### School uniform decoration concept

Sphere study	School uniform decoration concept	Meaning
Psychology	Artistic decoration on school uniforms is a means of shaping aesthetic sense and decency, education of levels of perception of the environment (detection, discrimination, identification, cognition using artistic expressiveness of finishing elements)	Formation of aesthetic perception, belonging to a certain educational environment
Pedagogics	The artistic decoration of the form determines the level of culture and requires appropriate behavior, forming a holistic appearance of the pupil	Formation of culture and behavior
Image-making	The artistic decoration of a school uniform is interpreted as a symbol that evokes an association with the learning environment, which is formed in pupils' minds. Provides the formation of the idea of the school	Construction of the appearance of a person, school, environment; identification of the pupil's personality
Design	The artistic decoration of the school uniform provides aesthetic, ergonomic, technological, semantic, and figurative-stylistic features, presenting a holistic appearance of the pupil.	Formation of an integral artistic impression of a school uniform utilizing design

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# THE HISTORICAL PRECONDITIONS OF THE SPATIAL SEGREGATION PHENOMENON IN LVIV, POSITIVE AND NEGATIVE ASPECTS

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Spatial segregation, as a reality of the city, can be traced back to the first cities of the early historical period. However, only in the urban planning of the modern era the thoughts not only about its negative psycho-social aspects, but also strategies for its elimination began to appear.

It can be claimed that a comprehensive vision of spatial segregation in Lviv still requires serious theoretical work, which may become the basis for practical steps in the future. The emergence and growth of isolated areas of the city and the transfer of property stratification to its fabric is currently not considered as a probable threat to normal development. Therefore, the lack of attention to this problem in Lviv can lead to irreversible spatial distortions, which will be a source of social tension and conflict.

The segregated reality of Lviv was founded in the Middle Ages and had a rather strict ethno-confessional character, which was eliminated only during Austrian rule, when the city received a new administrative structure. However, it was not completely eliminated. After World War II, much of the housing was occupied by Soviet administrative and military personnel. Newly built housing estates were inhabited mainly by people from the West of Ukraine, which created a new segregated landscape. Thus arose the urban expression of hidden antagonism between newcomers and locals.

In the era of Independence, a new segregative reality emerges. Due to the transition from a planned to a market economy, there are layers of rich and very rich citizens who create their own environment. As a result, the following segregative situation has developed:

- a) residents of "elite" single-family homes in prestigious areas of Lviv;
- b) residents of elite insert houses in historic buildings located in prestigious areas;
- c) residents of single-family homes on the outskirts of the city;
- d) residents of well-preserved apartments in pre-war buildings in the central and near-central part of the city;
- e) residents of Soviet buildings in the central part;
- f) residents of new buildings, including high-rise complexes;
- g) residents of Soviet buildings in dormitories.
- h) residents of degraded fragments of former pre-war apartments, which underwent division and redevelopment.

Most of the modern spatial-segregation reality belongs to the groups of categories "a", "c" and "f", partly "b". For example, people from category "a" almost do not intersect in the urban space with people from the category "g" and "h". In addition, people in category "a" often send their children to private kindergartens and schools using prestige rather than intimacy.

Therefore, the methodology for assessing spatial segregation in Lviv should take into account the following:

- a) the frequency of intersection of social groups of different categories;
- b) the place where this intersection takes place;
- c) territorial distribution of spatially segregated groups.

# LEGEND, AS A DNA BASIS OF BAGS BRANDS

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Behind every big bag brand there is a history that consciously and unconsciously is told to clients and the brands that do it the best dominate among their competitors and receive high profits. These companies made their names so popular that every person will recognize them without thinking, and the companies logos became synonyms to wealth and power.

Brand DNA is the system of characteristics and peculiarities of a brand that identify its individuality, let build an effective strategy of the brand positioning. The core of a brand DNA is the main idea, legend, directed at customers that aims to conquer and support its long-term favor (Pashchenko, Zakapko and Borushchak, 2020).

The legend of the brand, which produces bags, creates a unique emotional body around a fashion production. This is a plot that presents a company in an advantageous for the selling aspect, increases the recognizability, price justification, etc. The most characteristic types of the legends of fashion brands is: the history of a company or product creation, product peculiarities on the basis of which one can create a legend; products innovations.

The history of a company or product creation. For example, let us look at the legend of the fashion house “HERMES”, which is created on a more than a hundred years history, products quality, a halo of sophistication around the brand goods. The history of “Hermes” starts in 1837. The founder of the brand Thierry Hermes produced horse equipment in Paris. That is why a horse harness is pictured on the brand logo. Hermes bags are a separate chapter in the history of the world fashion and one of the main values of the House. The most famous products are the bags “Birkin”, “Kelly”, and O-Bag. To name the bags models after famous personalities, in particular Jane Birkin, Grace Kelly, Jacqueline Onassis, was a finding for the image brand. The stories of creating bags-legends became a successful business project.

Product peculiarities, on the basis of which a new legend can be created. The brand “Louis Vuitton” was first represented by Louis Vuitton Malletier in 1854. His brand started with creating of highly quality suitcases and gradually transformed into one of the most famous fashion houses, which patented a lot of inventions. In 1886 George Vuitton invented a unique lock with two springs, which was patented. Owing to a cardinally new technology road trunks became reliable as bank safes.

The brand Bottega Veneta received popularity owing to a characteristic leather weaving Intrecciato. It was founded in 1966 in Vicence by Michaele Taddei and Renzo Zendzharo. The most famous products are the bags “The Pouch” and “Bottega Veneta Padded Cassette”. Despite the fact that the brand does not have a logo, it is famous anyway and recognizable all over the world due to its branded weaving.

A legend based on production innovation. American brand Patagonia, which was founded in 1973 uses synthetic and natural tissues out of recycled plastic. The main slogan is “Create the best product, do not harm the nature, use business to inspire and realize ecological problems solving”.

Among Ukrainian bag producers which emphasize their attention on ecological innovation approach, it is worth to mention the brand “Keep” WE ARE ABLE, which was created in 2011 in Donetsk. As we know, Keep is a brand which refused to use leather and produces rucksacks and bags from vinyl, rubber, nylon and material Tyvek.

Conclusion: Having investigated the evolution of modern houses development and having analyzed the legends of famous brands, there was found out that the most successful and popular fashion houses use and base their legend on a true story of appearance of a fashion house or product, family traditions in production. Young recently created brands base their legends predominantly on the ground of product innovation and product peculiarity as well as on an unreal story. So for a successful marketing, effective positioning of newly created firms fashion houses legends is strategically important.

## **THE EFFICIENCY OF THE INFOGRAPHIC AS A WAY FOR DELIVERING INFORMATION**

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The term "infographic" appeared in the second half of the twentieth century, but the phenomenon itself arose much earlier. The first prehistoric rock paintings can be considered one of the manifestations of human understanding of the surrounding reality, namely the generalization of its facts as the main way of transmitting the information. Over a long period of its development, infographics have undergone significant transformations, becoming a powerful tool for visualizing information.

The widespread use of infographics is primarily related to technological developments, in particular, the implementation in the context of the virtual Internet environment. The Internet has become the main platform for the implementation of infographics due to its versatility and accessibility.

The reason for the popularity of infographics as a means of conveying information, especially today, is the problem of information overload, as new technologies and digital media play an increasing role in everyday life and professional activities, which in turn leads to reduced concentration in humans.

To process information, people use four main learning strategies - the VARK model (named after the first letters of English words - the names of strategies):

- visual (Visual) - people learn by perceiving not words but graphic materials, such as diagrams, maps, charts, etc.;
- auditory - people learn by listening to spoken words;
- verbal (Read / Write) - people learn by reading or writing words;
- kinesthetic - people learn from experience by doing something.

However, the main strategy is visual, which is based on the human visual system and is responsible for much of the brain. About 50% of the brain is directly or indirectly related to the functions of visual perception. The retina alone consists of more than 150 million cells and is essentially a physical complement to the brain. In addition, neurons responsible for visual perception account for about 30% of all gray matter (for comparison: neurons responsible for touch and auditory perceptions are 8% and 3%, respectively).

Due to a number of the above objective reasons, it can be assumed that the brain is easier to build logical sequences of perceived information, which is presented in the form of infographics than in any other, such as audio or text, in which each letter in the word is a symbol. To read the text, the brain, first of all, needs a certain sequence of actions, which involves decoding textual information through analysis and synthesis. First, the brain compares the sounds and shapes of a letter stored in memory. The next step is for

the brain to understand how sounds come together and form words, then how words form sentences and sentences form paragraphs. Although this whole process takes a short period (milliseconds), when compared to the way the brain perceives images, it becomes clear that it requires much more mental effort.

Thus, using an infographic can greatly simplify the perception and understanding of the information presented to the audience. Thus, the main advantages of infographic visualization are the following:

- more effective perception of information, ideas, and concepts;
- increase the ability to think critically, generate and develop ideas;
- improved memorization and reproduction of information.

## **COOPERATION OF ACADEMY WITH UNITED TERRITORIAL COMMUNITIES FOR THE PURPOSE OF MODERNIZATION OF PUBLIC SPACES OF CITIES AND VILLAGES**

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The newly created united territorial communities (UTG), their leaders, and residents are interested in the enhancement of public spaces - civic centers, squares, parks, as the areas that represent the city and village. The issue now is not so much the finding of funds, as the creation of the concept of development and its professional planning. In recent years, students and teachers of the Department of Urban Planning and Design of Lviv Polytechnic National University have developed and continue to work on conceptual solutions for planning individual areas and facilities of Chernivtsi, Uzhgorod, Kolomyia, Mykolaiv (Lviv region), Skole.

An example is the request of the Skole City Administration for a draft concept for the modernization of the city's market square. Today it is a large area in front of the city administration building with a monument to S. Bandera and two sculptural objects without artistic value. The area has nor specific purpose, nor arranged areas for recreation or holiday fairs, as is the case in the market squares of European cities. As a result of the students' work, four versions of the functional-planning organization of Skole central square were proposed, which will be discussed among the city residents and will be the basis for the development of working project documentation.



*Fig. 1. Skole. Topographic map of von Mig, 1772–1780.  
Military archive. Vienna.*



# PRACTICAL TRAINEESHIP OF STUDENTS OF THE FACULTY OF ARCHITECTURE OF LPI (NOW LVIV POLYTECHNIC NATIONAL UNIVERSITY) IN 1949

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Letters, accidentally found in the family archive (Fig. 1), which were written at the time of the practical construction traineeship by a student of Lviv Polytechnic Institute Andrii Rudnytskyi to his family in summer of 1949, allow us to look at the educational process of that time through the eyes of his immediate participant.

It should be noted that in 1949 the Department of Architecture, which accepted only 25 students annually, was a part of the Faculty of Civil Engineering. The construction traineeship was supervised by the Department of Architectural Structures, which was then headed by a former Kharkiv resident, Ass. Prof. Oleksandr Bedylo. Naturally, much attention was paid to the construction traineeship of future architects in the educational process.

Lviv students underwent their traineeship near Zaporizhzhia. According to the letters, it lasted two months – from mid-June to mid-August. In addition to Lviv students, students from other universities also underwent traineeship here (the letters mention volleyball competitions between students from Lviv and Moscow). Trainees lived in brick houses called “barracks” in a camp located on the right bank of Dnipro River, 1 km from Zaporizhzhia. In one of his letters, A. Rudnytskyi drew a plan of the camp.

The letters contain interesting information about the organization of the traineeship and the tasks that students had to perform. A trainee had the status of a “backup foremaster” supervising the work of several young workers – factory training school graduates, who also underwent traineeship. The workers addressed the student as “boss” («товариш начальник») and followed his instructions. In its turn, the work of three or four “backup foremasters” was supervised by one real foremaster – the head of the practical traineeship. The working day of the trainees lasted from 7:00 a.m. to 4:00 p.m., with a lunch break from 12:00 p.m. to 1:00 p.m.

During the traineeship, each student together with the workers entrusted to him had to build a small facility from start to finish, going through all the stages of the construction process and consolidating the theoretical knowledge gained in the process of studies. For example, A. Rudnytskyi was commissioned to manage the construction of a public toilet (he drew the plan of the building in one of his letters). The following words from his letter testify to the high quality of studies at the Lviv Polytechnic Institute: “I built my house up to the roof and we (me and 4 carpenters) had to cover the roof with the roofing felt. Neither I nor my workers have ever seen such procedure. Only I knew that roofing felt is to be glued with bitumen, and how one layer overlaps the other... We came from work being totally dirty and black, but proud. We start plastering on Monday” (a letter dated July 21, 1949). Obviously, the roofing felt was a new technology at that time, and not everyone was familiar with it. A “backup foremaster” worked in the real atmosphere of the construction process. A. Rudnytsky describes his working day like this: “For 8 hours, a man runs..., shouts, persuades, urges, and quarrels with the building superintendent about every board and every brick.” When the construction was completed on July 31, the students were writing a traineeship report for two weeks. They were visited by the head of the Department Assoc. Prof. O. Bedylo, and some excursions were organized.

Therefore, the conditions of the construction traineeship in 1949 were as close as possible to the actual working conditions of the foreman at the construction site. A. Rudnytskyi often used the gained experience of the personal participation in construction processes both in his professional activity, and in the process of construction of his own house.

Modern realities of the architectural education essentially differ from the realities of that time. But these “letters from the past” confirm the extraordinary importance of the complex practical traineeship in the educational and professional training program for future architects.



*Fig. 1. Letters of student A. Rudnytskyi written in the course of his traineeship in Zaporizhzhia. 1949 (from the author's archive)*

## **COLLECTIVE APPROACH TO THE DESIGN ENGINEERING PROCESS AS A METHODOLOGICAL ASPECT OF TEACHING DESIGN DISCIPLINES**

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Given the specifics of teaching creative and artistic disciplines, the educational process, in addition to transmitting knowledge from teacher to student, should be considered as a way to expand the consciousness of future professionals. Intensification of education should take place in two parallel directions: scientific and creative, this is the approach that will increase the index of creativity, as a result of which students increase their ability to analytical and research work, there emerges a need to experiment and think critically. But in order to force students to apply a creative approach in practice, it is necessary to create all the conditions for this way of thinking for it to become a habit and be used for various design processes. To increase the level of motivation for the design process one should take into account psychological factors, for example, the fear of making a mistake, of implementing an idea that can be criticized is often the factor that inhibits creative thinking. One way to reduce the pressure of responsibility for the decision is to use a collective approach to design. Brainstorming, as a group method of finding ideas to solve a problem, helps to generate new ideas, listen to unexpected points of view, make positive decisions, which encourages a more dynamic project image search. Making and implementing a decision agreed in the group drives the creative potential of the designer. Participation in group discussions or in the joint implementation of certain activities increases the effectiveness of finding solutions in terms of tasks in classrooms. Moreover, due to such a comprehensive approach, each member of the creative team solves project problems within the overall concept, it is possible to avoid situations where the student receiving

the task implements it as a technical performer, without taking into account other thoughts and ideas. The practice of effective search for solutions through the communicative and game form of exchange of concepts allows to develop a general algorithm of system design with a clearer planning of the process. This makes it possible to form an operational strategy that is developed directly in relation to a specific project situation. The use of game scenarios that involve students in the process of rapid response to events and the use of techniques that ensure active interaction between them, significantly improves the efficiency of the educational process, stimulates creative development and activates project thinking.

## **ASPECTS OF CONFRONTATION OF PROFESSIONAL AND ACADEMIC EDUCATION OF ARCHITECTS**

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Recently, the opinions about the inappropriateness of academic education have been often raised by practicing architects. They argue that an architect can be trained in a workshop, when following their example, thereby promoting a workshop-based method of mastering the profession. Is this a problem typical of our time only, or has the confrontation of these two ways of training existed before? Academic education developed in the Renaissance when the concept of "criticism" emerged, which offered the basis for theoretical works. The workshop-based method was known much earlier and did not involve any criticism, and therefore no generalized knowledge. The master conveyed their own experience to the student, and everything outside his experience remained conventionally unknown. Therefore, academic education was a new step forward on the path to learning.

Another problem is the development of your "own style". There is a position that by learning from a particular master who is an architect with the recognizable works, a learner will adopt a manner of expression of the master, and later, he will be able to produce his own way. Academic education offers generalized knowledge and often sets abstract tasks that does not help a young architect define their individual style. However, is it true to facts? After all, a student falling under the strong influence of a teacher from the very start may never go beyond, land remain in the shadow of his master. Likewise, he is unlikely to make independent decisions. The purpose of academic education is to train specialists for a long period of time. Depending on the changing challenges dictated by the society, they will be able to flexibly find suitable solutions because they have a universal knowledge base. That is why it is not surprising that a large number of the world's famous people originally have an architectural background. They managed to successfully actualize themselves in other creative areas relying on a universal base of academic education.

Does university education completely deny the workshop-based training (coaching by a master)? After all, previously, in order to be considered a full-fledged specialist, it was necessary to undergo a three-year internship in an architectural bureau. It was always not enough to limit yourself to studying only in a classroom. Upon obtaining their diploma, former students would often travel the World, where they got acquainted with the activities of various famous architects of the times. Thus, Friedrich Kiesler, at the beginning of the twentieth century, in his search for the origins of avant-garde art and architecture, got acquainted with the activities of Adolf Loos, of the "Style" group, of a film director Dudley Murphy, of a Dadaist poet Tristan Tzara, of the artists Fernand Léger and Marcel Duchamp.

The architecture surrounding us every day has a great impact on the quality of our lives. How to train an architect to be able to successfully solve pragmatic issues and create innovative objects that not only harmoniously fit into the existing environment but are also the true works of art? By far the best answer to this question was given by Vitruvius in ancient times on the pages of Ten Books on Architecture,

which received approval as late as in the Renaissance days. “The architect's training is based on practice and theory. Practice is the constant and thoughtful application of experience to the performance by human hands of work on any material, according to the provided drawing. The theory is to be able to show and justify performance in accordance with the requirements of art and expediency. Therefore, architects who tried to fill their hand without theoretical background could not get a recognition corresponding to their performance; those who relied solely on scientific reflection and theoretical training, obviously, pursue a shadow, not an essence. Whereas the people who studied both have become all-round trained professionals and have quickly achieved their goal, and also recognition.”

## **PLEIN AIR METHOD IN CHILDREN’S EXPRESION OF THE ARTISTIC IMAGE SEMANTICS**

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A plein air “Inspired by Pinsel in Hodovytsia” within the project “Under Pinsel’s Star” took place in the village of Hodovytsia, Pustomyty District, Lviv Region. There were workshops, a lecture about All Saints Church in Hodovytsia and concerts as well. The plein air works will form an exhibition which will tour the country. This project unites prominent artists of Ukraine and children. It aims to draw attention to the state of the monument, create public resonance so that the church is restored, preserved, safe and protected.

Johann Georg Pinsel’s sculptures became a part of the world heritage treasury. Majority of All Saints Church’s sculptures is preserved owing to Borys Voznytskyi and passed to the Lviv Art Gallery, Olesk, in 1965. 2007 was announced a Year of Johann Georg Pinsel in Ukraine. His figures from the the high altar of the All Saints Church in Horodytsia were exhibited in Parisian Louvre in 2012. The architect of All Saints Church is Bernard Meretyyn, author of the St. George’s Cathedral in Lviv, the Buchach Town Hall, churches in Rava-Ruska Kolomyia, Busk. The Church in Hodovytsia was consecrated in 1774.

Opening of the site. Participation of children is an important part of the plein air. Child’s perception is substantially different from adult’s one, thus, being a part of the socially important performance will allow children to develop motivational attitude to preserve valuable architecture, artistic treasures, which will remain a sort of a value guide for the rest of their lives. Lake, beautiful big trees, sunny glade, trodden paths, blue sky are all components of the image of the place.

Cognitive interaction of images – Pinsel, the Church, ruining, rescue, participation, joy, presence – opens the essence of the environment. The first reflections of children are put on paper with sketches, conversations, views of the church, coastal grasses, towering old trees. Observations of children are impressions, emotional involvement, ideas, images, adjusting time, measuring space by a quick walk around the church.

The presence of professional artists and the media coverage of the project give a sense of the importance of the topic, the involvement of children in an “adult” business, and, thus, set the mood for work as something important, maybe even immeasurable, but great, which will be seen from afar in the following children’s years.

The first embodiments in the material: pastel, watercolor, crayons, felt-tip pens – each material reflects the impressions of what was seen, felt, put on paper in its own way.

The discussion after the plein air takes place in the studio, a lively exchange of memories, impressions about the smallest details from dewdrops, ants, leaves falling from trees, village goats, that

came in amazement and look at this almost biblical action, up to the mystery of the church, ancient crumbling brick walls. The tattered church, weathered, torn, with collapsed vaults, but alive; with the silent gaps of the windows-eyes, it asks for help to stand for at least one more year, or ten, or maybe even a hundred...

To draw and draw – a young soul wants to say so much.  
And then the formation of the exhibition exposition.

Conclusion: The importance of choosing and presenting a topic for children and by children themselves – art treasures, destruction, rescue, restoration and preservation: Pinsel, Meretyn's Church, place, nature, life, participation, engraving in memory.

Personal motivation – going to the plein air: discovering and getting to know places, stories, and the joy of freedom and creativity.

First reflections: psychological observations – impressions, emotional involvement, ideas, images, desires. The first embodiments in the material in the plein air are sketches, discussions, returns, memories, reproductions, idea.

Comprehension after the plein air: associations, comparisons, participation, the joy of learning and understanding the great topic of Pinsel, the forgotten church, the desire to create.

Creation of works and participation in the formation of the exhibition exposition: we will do it and show it to everyone - we care, it depends on us, we will convince, we will preserve it, Pinsel is ours and everyone's, Meretyn must live in the church built by him. It is our business, we are not indifferent to what we got from history and how we deal with it. We live and Pinsel and Meretyn live with us - our contemporaries and inspirers.

The plein air method is an effective cognitive process in children's understanding and expression of the complex artistic image semantics.



*Fig. 1.*



*Fig. 2.*

# LIGHTING SCENARIOS IN ENVIRONMENTAL DESIGN

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Lighting scenarios are a process, which aims to improve the perception of space. Lighting scenarios are a powerful functional tool for conceptual design of the environment and the creation of the necessary light-color climate. Light-color climate is one of the most effective methods of forming the necessary atmosphere, bright artistic image, stylistic unity of color of space, comfortable environment and impressions of the space as a whole. The climate contributes to the harmonization, mutual coordination of the components of the spatial light-color composition, inclusion of individual spaces in the overall compositional structure and stylistic unity.

Creating lighting scenarios and exclusive environmental design solutions require careful elaboration at the stage of conceptual interior design. Good lighting contributes to the comfort and coziness of the interior. And the possibilities of modern lighting tools are so wide that designing optimal lighting scenarios can partially hide the defects of the planning, and emphasize its advantages, such as location of furniture, and interior equipment.

Different scenarios can be implemented within the living environment: for the living room - scenarios for receiving guests, watching TV, romantic dinner, for the bedroom - morning, leisure, night scenarios, etc. Other lighting scenarios are used to create huge community or commercial spaces.

Appropriate lighting scenarios can help reveal the benefits of the environment, create light-color accents, maintain the required level of lighting, divide the space into zones, change the look and perception depending on the time of day, contribute to the maintenance of psychological and physical comfort, perform a decorative function.

Lighting scenarios have to be created while taking into account the functional purpose of the environment and its individual zones; characteristics of natural lighting of the environment; groupings of lighting tools by functionality; combination of several types of lighting tools (chandeliers, sconces, lamps); placement of switches, control panels, dimmers; design and presence of motion sensors, light control touch panels; light source parameters (light temperature, possibility of dimming); arrangement of furniture, ways of opening the doors; architectural and construction parameters of the premises (proportions, wall material); color scheme of the environment.

Lighting scenario is formed by specialist designers (architects or designers of light) with the involvement of specialists in related fields (electrical specialists, installers). Light-color scenes and ambient lighting effects are adjusted according to certain parameters (power intensity, brightness, saturation, chromaticity of light, operating time, dynamic elements (sound synchronization or sound), motion, etc.). Smart technology will save electricity in an empty room, provide separate combinations of lighting for different time of day, special cases (festive, romantic), individual events (work, reception, recreation, leisure, sports, sleep).

A computerized system of automation elements, which creates such systems that can be controlled through the center panel, mobile phone, tablet or remote control. Dimmers for brightness adjustment are

used to create lighting scenarios, separate different zones of the room (working, rest, guest); and group the lighting tools (table lamps, floor lamps, which often work in manual mode).

A night scenario is implemented with less brightness and the lighting tools are placed along the trajectory of the residents' movement (for example, from the bedroom to the bathroom), using motion sensors or designing separate night scenario switches near the bed.

The design and implementation of lighting scenarios is an important component of shaping the light - color climate of the environment, which is crucial in the modern information - and communication-based environment of human life and activity.

## **MODERN TRENDS IN RESORT-BASED HOTEL COMPLEXES INTERIOR DESIGN OF THE WORLD 2019-2021**

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Despite the significant decrease (by 70%) in the volume of international tourism during 2019-2021 year a number of hotels were built in the world.

Hotels are classified according to: -purpose ; - hotel class; - capacity; - stay of tourists length; - location; - transport type; - operating mode; - ownership form.

*27 resort-based hotel complexes* (as the most significant type of hotels in terms of design and architecture) were selected for the study from such countries as Portugal, Italy , France, Norway, Croatia, Slovakia, Turkey, the USA, Brazil, Mexico, Republic of Maldives, Indonesia, Hong Kong (China) , Thailand, India, South Korea, Japan.

These resort-based hotel complexes are located on the shores of reservoirs or in picturesque mountain areas. They are maximally integrated into the existing natural environment.

The main trends in the resort-based hotel complexes interior design of the world in 2019-2021:

- the presence in the buildings of complexes in addition to various classes hotel rooms of such areas and premises for tourists as: lobbies , lounge areas, various types of public catering facilities (e.g., restaurant, multifunctional banquet halls , pool bar), children's club, fitness centers , business center, conference hall, cinema, art gallery, stages for various programs, saunas and baths, retail establishments;

- provision of a visual connection between the premises of the complex with the surrounding territory and views by: •arranging of terraces (in rooms, around restaurants and pools) •using of translucent materials in enclosing structures (in rooms, restaurants, lobby, saunas); • using of transformer partitions (in hotel rooms, restaurants, lobbies, swimming pools);

- visual hierarchy in rooms (zones) interior design. The most interesting in this terms are a lobby area. In some hotels the most interesting are a restaurant, terraces by the pools, "luxury" rooms;

- thoughtful and laconic interior design, which on the one hand tends towards functionality and multiculturalism, on the other hand is characterized by the use of ethnic (regional) motifs;

- increasing the comfort of luxury rooms by: •creating an atmosphere of home comfort; •provision of additional functions (installation of saunas in rooms, placement of hammocks and bathtubs in living rooms and on open terraces with views);

- "luxury" rooms interior design using author's objects of decorative and applied art, elite furniture of well-known manufacturers;

- ensuring environmental friendliness and sustainable development by: •using of natural materials (brick, clay, soil, bamboo, rattan, metal, natural textiles) while preserving or emphasizing their natural visual texture or tactile texture; • using of natural colors both in structures and in furniture, decorative and applied art objects.

The interiors of resort-based hotel complexes of the world 2019-2021 are characterized by an increase in the level of environmental comfort, well-thought-out functionality and laconic design, connection with the environment, environmental friendliness.

## **MODERN APPROACHES TO THE EXHIBITION SPACE FORMATION IN OPEN-AIR MUSEUMS**

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The main types of visitor behavior in the museum are contemplation, studying and participation. Today, open-air museums are transformed into large cultural centers, where the exhibition function becomes only one of many parts of the overall program and is based not only on education but also on presentations and "living history".

The museum exhibition is created based on original objects and supplemented with additional elements (new works, models, reproductions, copies, replicas, cartographic materials, etc.) [1]. A competently designed exhibition allows you to influence the intellectual, emotional and moral spheres of the visitor's personality. It is important to choose the method of actualization of cultural heritage objects. Among them are translation (fixation), interpretation, reconstruction, revitalization and modeling [2]. Having chosen the most optimal method, the concept of the museum's exhibition is determined.

The main concepts of exhibitions in open-air museums can be considered entertaining, educational, archaeological and scientific. New approaches in the design and decoration of the museum have led to the transformation of exhibition spaces, among which we distinguish functional, display and substantive spaces.

The popular principle of modern museums exhibitions, which is also characteristic of open-air museums, is interactivity. "Living history" has outgrown an ordinary theatrical action and has become a method of transmitting information, a philosophical and educational tool. "Historical reconstructions" as one of the manifestations of the "living museum" can differ greatly in purpose (philosophical, behavioral, technical, material) and the nature of the reconstructed material (reconstruction of events, objects, symbolic actions and rituals) [3; 4].



Heritage sites, which are not subjects to any modern functional adaptation, in open-air museums are also a full-fledged element of the exhibition and can be the basis for various actions and installations. Thus, even those buildings that do not have the opportunity to "work" as a room are involved.

Increasingly, the exhibition space combines material and the virtual environment with the help of new information and multimedia tools. The use of modern technologies provides an opportunity to expand the information component of the exhibition, to demonstrate the subject in the context of virtual space, in the atmosphere of the relevant time period, provide interactivity, attracting visitors to the game and active participation in the exhibition. Multimedia technologies provide ample space for action, and technological development makes them increasingly flexible in use.

Augmented and virtual reality tools are becoming increasingly popular. The most effective technologies will be LBS (location-based service), AR (augmented reality) and RVI (real video images).

Exhibition spaces in open-air museums, which feature a combination of learning with impressions, games, entertainment and recreation, serve as an exhibit, an element of various activities, as well as serve as the main tool for identifying and emphasizing the characteristics of exhibited complexes and ensembles.

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## **CRYPTOART IS A NEW PARADIGM OF MODERN ART**

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The steady expansion of cryptocurrencies, fueled by the global rethinking of values during the COVID-19 pandemic, has given rise to such a phenomenon as cryptoart. Let's reveal the essence of the main terms.

Cryptocurrency is a type of digital currency, the emission and accounting of which is performed by a decentralized payment system in a fully automatic mode.

Blockchain is a distributed database that stores an ordered chain of records (blocks), which constantly grows to infinity; e-book, the data in which cannot be deleted or changed, can only be supplemented.

An NFT is a unit of data in a digital ledger called a blockchain, where each NFT can represent a unique digital item, and therefore any one of them is irreplaceable. NFT tokens are a kind of development of the idea of cryptocurrencies.

These categories form the concept of cryptoart - a category of art related to blockchain technology. The first experiments with NFT began in 2013-2014, and in 2021, for the first time, a tangible work of art was transformed into a digital asset - the company Injective Protocol bought Banksy's "Morons (White)" stencil for \$95 thousand and burned it during a live broadcast on Twitter. At the moment, the total number of Ukrainian NFT artists in the Internet environment is about 1,000 people, among whom more than 30 are

in demand on the market. The number of online platforms that sell and exhibit NFT is constantly growing, while the ten most important markets cover 90% of all funds in this area. There is currently no answer to the question of whether cryptoart needs aesthetics, because the movement has a distinctly decentralized nature, so the trending aesthetics of NFTs is shaped by user demand.

Generalization about aesthetics:

- futuristic, retro and science fiction themes;
- "3d" art is the most popular;
- the number of views is highly correlated with the price;
- NFTs with the "drawing" tag are usually sold cheaper;
- the average NFT color palette tends towards purple.

Factors contributing to the popularization of cryptoart:

1. Digital nature
  - instant payment from the collector to the artist;
  - the ability to freely donate or exchange works of art;
  - benefit from low commissions or their absence;
2. Geographical independence
  - no delays in the delivery of the artwork;
3. Democracy
  - artists earn interest from the resale of their own works, which is impossible in the traditional market;
4. Decentralization
  - full control over the price by the artist, not the art gallery;
  - the ability to use already existing physical works of art;
5. Anonymity of collectors and artists.

Factors determining sales:

- activity in the community of crypto-artists;
- regular creation of new works;
- self-PR in the relevant segments;
- fame of the artist's name;

Results:

1. The biggest profit from the development of the flow accrues to the owners of trading platforms, because for the opportunity to put an NFT-token on sale, it is necessary to pay (minting & listing). The environmental friendliness of issuing tokens remains in question, since the use of Blockchain technology accounts for almost 0.07% of the total human carbon footprint.

2. The popularization of NFT has drawn the attention of independent creators to new channels of communication and the formation of new decentralized communities, which usually show a high level of cooperation and culture in general. Creators, on the one hand, got the opportunity to accumulate funds for their work immediately from the audience, and on the other hand, they must master the tools of self-promotion in the digital community. The change of paradigms leads to awareness of the fact of dematerialization of art objects.

3. "Value" as a property and characteristic of objects or assets (NFT tokens) in the current environment is increasingly determined not by the past, but by the future, because collectors invest in digital art when they see the likelihood of price growth. This is what defines a "paradigm shift."

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# INTERIOR DESIGN OF THE EVENT CENTER AS A SPACE FOR THE ORGANIZATION OF COMMUNITY WORK

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The topicality of the topic is due to both the rapid development of technologies, which significantly affected the way of public work, and changes in the organization of public spaces and their transformation in accordance with the new demands of society.

The purpose of creating event centers is to improve public space, which becomes special for active and creative people. Which in turn form an active environment for development and improvement, team/group work, interaction between people with different knowledge and specializations. It provides an opportunity for presentations, business communication and leisure, project discussions, round tables, formation of startups, individual educational and work events. After all, the general humanization of the office environment with the main place of communication between employees, as well as the expansion of working boundaries, self-realization and self-expression, is becoming more and more important.

The topic of event centers of an educational and work nature is becoming popular abroad, but in Ukraine there are currently no such counterparts. Such centers are usually built on the basis of coworking and are closely connected by one idea, namely, the joint work of people. Coworking is a joint workplace in which different professionals work, mostly freelancers with different professional levels in a large field of the knowledge industry. In fact, it is an office space for rent where employees rent desks and Wi-Fi connections. The goal of co-working is to solve the problem of loneliness, to create a team so that everyone can perform their own tasks, but at the same time become part of one. Designers, programmers and copywriters can work in the same room. In Ukraine, co-working is a relatively new phenomenon, which explains the lack of clear recommendations for the design of such places.

Returning to the event center, the following factors have been identified that affect the effectiveness of such spaces: location (usually this is the commercial center of the city, so it is more convenient in terms of the surrounding infrastructure and the remoteness of partners to ensure their interaction with residents); zoning of space (negotiation areas, dining rooms, lecture halls, entertainment and recreation areas); ergonomic methods (adaptation to the workplace, work items in accordance with the psychological and physiological characteristics of the human body to optimize overall work productivity); interior (interesting design decisions, use of colors that affect the productivity and creativity of colleagues for joint work); policy of the organizers (customer reviews, flexible pricing policy, selected services for the event, information security); equipment of the center (convenience of work, necessary technical support, modern equipment).

The main characteristics of the event center include:

1. Flexible planning structure and subject-spatial content to ensure collective work and communication while complying with current regulatory ergonomic requirements.
2. The use of mobile furniture-transformers and various partitions to ensure a change in the functions of the space.
3. Integration of the latest technologies and equipment.

4. Availability of natural or individual artificial lighting.
5. Whenever possible, use natural materials and landscaping.
6. Implementation of the principles of inclusive design.
7. Artistic and aesthetic decoration that meets the conditions of psychological comfort and stimulates mental activity.

Thus, it can be argued that the concepts of "event" and "co-working" are relatively new for Ukraine, so a clear definition of the difference in their functions has not been fully formed. An event center built on the principle of co-working should adapt to a specific function. The analysis of foreign analogues showed that in global practice, event centers have a much larger scale and are considered as platforms for mass events. The analysis of domestic analogues showed that in Ukraine there is an insufficiently represented niche for the formation of event centers, due to the fact that the popularity of the co-working platform prevails. The functional, planning and aesthetic principles of organizing the subject-spatial environment of event centers include: integrity of space, functional expediency, comfort, color solution and subject content. The planning, volume-spatial and artistic-compositional solution of the interior of the event center was aimed at bringing the domestic and professional space closer together, making the psychophysical well-being of people a priority.

## **ARCHITECTURE OF HIGH-RISE BUSINESS CENTERS OF URBAN SPACE**

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Among the most popular and relevant areas of commercial real estate construction nowadays is the construction of business centers. The expansion of economic ties in Ukraine and abroad contributes to the construction development of the latest business centers. In modern megacities, it is difficult to find a lot of free territory for construction, therefore one of the natural development trends is the construction of high-rise buildings of various purposes (residential, commercial and office complexes, multifunctional, etc.) for more efficient use of space.

Progress in science and technology actively affects the development of high-rise construction of business centers, increasing the number and height of skyscrapers. However, it should be noted that high-rise buildings, mostly built in the 20th century, often have shortcomings associated with: imperfection of architectural and planning solutions, functional incompatibility with the modern needs of the urban population, high level of energy consumption, deterioration of the microclimate of adjacent territories, negative effects of wind load and deterioration of aeration in cities. Modern megacities began to be characterized by the presence of hyper urbanized zones, which arose as a result of dense construction of urban areas and excessive load on the original natural landscape, which has a clearly defined geomorphological structure.

So, the process of urbanization has both positive and negative effects on society. Business centers have a significant impact on the compositional and spatial structure and prestige of the city. There are also

centers of social and economic development. Often becoming the original symbols of the urban landscape of the city, performing the role of spatial landmarks. At the same time, with their appearance in cities, the influence of anthropogenic factors on the environment increases.

Low-quality building and finishing materials, air conditioning and power supply systems used during the construction of business centers can negatively affect the health and well-being of people who spend a significant part of their lives in these premises. The architects designing high-rise business centers need to implement innovative strategies of an environmentally friendly construction methods, which will help eliminate identified problems, as well as create a safe environment for both employees and visitors.

In Ukraine, the market of "green", ecological construction has just begun to form. Due to the lack of legally established standards, this direction is developing rather slowly. Implementation of world standards BREEAM and LEED in Ukraine will allow to reach a new high level of quality of commercial objects.

According to the law "On the Energy Efficiency of Buildings", adopted in June 2017, a certificate on the energy efficiency will be necessary to put a new building into operation. Therefore, this law will be able to give another impetus to the development of "green" construction and the use of LEED and BREEAM standards in design in the territory of Ukraine.

Designing buildings according to the standards of the LEED and BREEAM systems has obvious advantages:

- reduction of operational costs of construction;
- use of energy-efficient equipment and materials;
- improving the quality of the public environment;
- application during construction of technologies that correspond to the main principles of sustainable development;
- implementation of innovative solutions that minimize the harmful impact on the environment during the construction and operation of buildings.

However, the requirements of regulatory documents regarding construction in Ukraine must be followed even when using the global LEED and BREEAM strategies. These standards only supplement the requirements for the quality of buildings.

Therefore, during the design and construction of new high-rise buildings of business centers, it is necessary to be guided by three main principles of sustainable development:

- environmental (energy efficiency, energy saving, reuse, etc.);
- economic (economic feasibility, profitability);
- social (quality of life of the population).

# INNOVATIVE TECHNOLOGIES IN THE DESIGN AND MANUFACTURE OF EXCLUSIVE DESIGNER FURNITURE

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**Summary:** Abstracts for the conference are devoted to the topic of innovative technologies in the design and manufacturing of exclusive furniture. The modern equipment, form and materials of designer furniture are determined and analyzed.

**Keywords:** innovative technologies, exclusive furniture, decorative elements, design.

The next century determines the penetration of the latest technologies in all spheres of human activity, including architecture and design. Modern materials, the latest equipment and bold, creative ideas allow to create the interior of a hitherto unknown future.

Today, innovative technologies are widely used in many areas, including furniture design and manufacture. Technical equipment, interesting solutions and modern materials – all this helps to create exclusive furniture. Introduction of laser technologies and software control of machines allows to carry out high-precision cutting and production of various decorative elements. Due to the development of the chemical industry, it has become possible to make artificial materials, such as imitation leather, fur, silk, ceramics, stone, etc. Such materials have not only external similarity, but also often surpass natural analogues in quality characteristics. Wear resistance, product weight and appearance give modern furniture many advantages. The combination of artistic component, rationality and technical expediency in such furniture makes them extremely attractive to the consumer.

New trends in furniture production show that designers of fashion houses are trying to widely apply the new properties of various materials and take as a basis the motifs of nature, flora and fauna. They interpret and rethink the elements of wildlife in their projects, trying to impress and draw attention to the objects they created. Now furniture ceases to have only a functional value and becomes an art object. They are an extremely expressive accent, so they are beginning to dominate the interior. Today, the competitiveness of a furniture product depends not only on the appearance of the object, on the capabilities of modern materials and technologies, but also on the emotional and aesthetic load it carries.

Among all the works presented at international furniture exhibitions, the furniture art objects of the French house Louis Vuitton stand out. These products are extremely emotional, bright and impressive in their shapes (see Fig. 1 and 2).



*Fig. 1. Cocoon chair, Louis Vuitton*



*Fig. 2. Bulbo chair, Louis Vuitton*

Exclusive and fresh solutions in furniture design always attract large audiences with their uniqueness. That is why designers create unique designer things, which are a new wave in art. Household items and furniture are now becoming very individual, they serve as a compositional, semantic and aesthetic center of the room. In the development of modern furniture, artists embody their boldest ideas and organically fit into the interior of various elements, and use numerous decorative techniques, changing the standard "face" of furniture.

Conclusion: In recent years, very important changes have taken place in the field of design and engineering. The furniture acquired its individual character and began to stand out. This was made possible by a symbiosis of ideas and technologies.

Summarizing the global trends in the development of furniture design as an element of art design in the interior, there is a clear relationship between the creative vision of the designer and the possibilities of innovative technologies. It is this combination that creates a new style in the design of modern interiors.

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## **NATURAL AND LANDSCAPE COMPONENT IN THE DEVELOPMENT STRATEGY OF DROHOBYCH AGGLOMERATION**

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Guided by the definition that "an urban agglomeration is a compact territorial location of urban settlements, united by intensive economic, labor and cultural connections..."<sup>1</sup> the important factor in the agglomeration development is also the links between its landscape components, which may play a role of growth poles for the health and tourism industry.

As a result of decentralization and administrative reform in Ukraine, the borders of united territorial communities (UTC) have been formed since 2014. Newly established UTCs are gaining more and more rights in regulating spatial planning. With the lifting of the moratorium on the sale of agricultural land in 2021 emerges a need to outline the environmentally optimal nature of land use. The result of the study is the development of a plan of ecologically optimal structure of use and management of land resources of Drohobych agglomeration, which includes several UTCs. The development of regulations for the use of the most valuable landscapes, in terms of nature, culture and recreation, will focus the impact and resources in the main vectors of agglomeration development; to strengthen the logic of establishing the boundaries of natural-territorial zones and the validity of urban planning regulations in their use.

<sup>1</sup> *Resolution of the Cabinet of Ministers of Ukraine of March 17, 2000 N 521 "On the main directions of ensuring the integrated development of small monofunctional cities".*

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