

DOI: 10.21005/pif.2017.31.B-06

# THE TYPOLOGY OF MOSAIC COMPOSITIONS APPLICATION IN LVIV ARCHITECTURE OF THE END OF THE XIX<sup>TH</sup> – THE BEGINNING OF THE XXI<sup>ST</sup> CENTURIES

TYPOLOGIA STOSOWANIA KOMPOZYCJI MOZAIKOWYCH W ARCHITEKTURZE LWOWA KOŃCA XIX – POCZĄTKU XXI WIEKU

# Natalia Piddubna

Assistant

Lviv Polytechnic National University, Institute of Architecture, Department of Restoration of Architectural and Art Heritage

# **ABSTRACT**

Based on the analysis of empirical research and bibliographic materials highlights the typology of known mosaic compositions application in Lviv architecture of the end of the XIX<sup>th</sup> – the beginning of the XXI st centuries.

Key words: mosaics, mosaic compositions, typology application, classification of mosaic, types and subtype of mosaics, Lviv architecture.

# **STRESZCZENIE**

Na podstawie analizy badań empirycznych i materiałów bibliograficznych, opisana została typologia stosowania kompozycji mozaikowych w architekturze Lwowa końca XIX – początku XXI wieku.

Słowa kluczowe: mozaika, mozaikowa kompozycja, typologia stosowania, klasyfikacja mozaiki, typy i podtypy mozaiki, architektura Lwowa.

#### 1. INTRODUCTION

In the context of the Ukrainian national identity development, the idea of researching the historical and architectural heritage finds itself in the spotlight of attention. Consequently, it becomes necessary to conduct the inventory, systematization and analysis of the insufficiently studied architecture and its constituent components, such as mosaic compositions in particular. Over the past centuries in Lviv, mosaic compositions have been an important expressive element creating the architectural image of buildings and constructions and their usage has altered along with the development of architecture. The stages of mosaic compositions formation have been tightly connected with customs, traditions, style, technological achievements, and ideology. They have been used for finishing building facades, decorating interiors and small architectural forms. Mosaic compositions have been designed as being of different size and depicting varying plots and narrative content details; they have been made using various materials and techniques and placed in different city locations and constructions. The wide range of mosaic compositions that are a constituent component of building architecture urges us to proceed with the analysis, comparison and definition of its typological features. The preservation state of mosaic compositions, which are an integral element of building decorations in Lviv, requires special attention of the broad-ranging professionals, especially in the areas of science and restoration, in order to keep and exploit the previous experience of using mosaic in urban space arrangement and new architecture design that is aimed at formation of an integral, informative, aesthetically complete, and artistically balanced architectural environment.

At the current stage, the term "mosaic" has acquired the broad content, the wide range of types and their usage. Mosaic composition in architecture is an artistic work in the format of a picture (narrative plot, ornament, signs), which is made of a set of colorful pieces (stones or tessera, i.e. small cubes) of smalt, natural stone, ceramics, glass, or their combination, which are fixed by special solution at the surface of an architectural object.[1]

The analysis of bibliographical sources has revealed the absence of scientific works that would present the typology of using mosaic compositions in the architecture of Lviv during the time span from the late19th century till the early 21st century. The peculiarities of using mosaic in the architecture of Lviv have been studied by the author in publications, conference proceedings, and results of master's research paper.[13,14] Some historiographical aspects of using mosaic in Lviv architecture have been covered in publications. [3,6,9,19]. The research of mosaic in architecture is the topic of multiple historiographical and restoration works; its classification is illustrated fragmentarily as based on the material, technical and technological characteristics.

#### 2. BASIC THEORETICAL PART

As based on the field observations, the photographic evidences of preserved samples, the bibliographical materials and the interviews with designers and performers of mosaic compositions, the author has analyzed the historiographical aspect of formation and peculiarities of using mosaic in the composition of architectural constructions and environment in Lviv starting from the late 19th century till the early 21st century. Applying the methods of classification, systematization, comparative and compositional analysis, the author has outlined the typology of using mosaic compositions in the architectural environment.

# 2.1. Chronology of usage and stylistic typology

The analysis and systematization of mosaic compositions of the late 19th century – the early 21st century has revealed their dependence on the architectural stylistics peculiar for the Lviv cultural environment. Therefore, the typology of Lviv mosaic compositions is determined as based on the stylistic peculiarity:

The period of historicism (40's – 90's of the 19th century) – mosaic in the Lviv architecture appeared at the end of the century during the period of the intensive development of the city, its economic and construction prosperity that had been predefined by the range of factors. The historicism style was influenced by the development of the historical sciences, namely by the new approach to the study of history where the description was substituted by the analysis. Architects came up with the new approach to designing and interpreting architecture: "...as to not just the embodiment of technological progress, but as to the embodiment of the general progress and the achievements of civilization". In the neo-style that arose in architecture of the 19th century, authors synthesized and used the experience and the material means of the past in a new manner [2]. During this time, the mosaic tradition returned to the decoration of Lviv architecture, but taking into account the fact that technical and material base of the city was not well-developed, the technique of smalt mosaic compositions did not gain the broad popularity. Mosaic compositions were ordered at the German and Austrian factories and were made using the "reverse" method. They are present in the exterior of sacred buildings of the medieval Byzantine tradition as iconographic insert panels in the finishing of the main entry portals: two compositions from 1879<sup>2</sup> in the Church of St. John Chrysostom that is executed in the neo-Gothic style with the elements of the neo-Roman style, and one composition from 1990<sup>3</sup>, in the St. George Church of the neo-Roman style with the elements of the neo-Byzantine style.

The historicism architecture of European cities is associated with the dim coloristics [4]; it is followed as well in the calm and noble colors of classical ornaments that were peculiar for mosaic made of natural stone (black, grey, red, ocher, white), which became the most widespread in the Lviv architecture of this period. In the city, there were factories that made mosaic compositions in combination with the technique of a concrete floor, known as terazzo<sup>4</sup>. Such a decision for designing floors went in line with the tradition of the mosaic paving of luxurious Greek villas and mansions and, therefore, emphasized the wealthy status of citizens who owned neo-Renaissance residential buildings in Lviv, where it was exploited. (Fig. 5) Mosaic compositions were placed in entrance lobbies of the houses (from one to three floors), starting from the entrance doors and up to the staircase platform at the ground floor, depending on the configuration of the house project and the intention of an architect. They were placed following the principle of a carpet with a central ornamental mosaic composition and a frame that could be either simple or supplemented with small corner ornaments; or it could be without a frame in general. Mosaic frame was made of the rows of stone pieces (from one and up to eight rows), or could be executed using the terrazzo technique, according to which the frame was separated by the fill color, or as a geometric ornament. Central insert panels were made in the format of a central element, often inscribed into a circle, and an ornament that was stemming from its two or four sides. Usually, these were octagonal elements, like stars or rosettes, or such shapes as diamonds, palmettes, lilies or heart-like ornaments with curves. Similar mosaics were used to finish floors of lobbies and halls of administrative (former directorate of state railway at 3 Sichovych Striltsiv Str.) and sacred architectural objects (former Dominican monastery at 1 Muzeina Square [6]). They were distinguished by the manner of placing a composition as a rhythmic system of small carpets put together in accordance with the shape of a room.

<sup>&</sup>lt;sup>1</sup> which include: the self-government right (1870), the growth of the number of inhabitants and the increase of the territory, the adoption of I Construction Statute (1877), the development of the local architectural school and artistic education; the increment of construction during 1887 – 1890 constitutes 73 %[2].

<sup>&</sup>lt;sup>2</sup> German factory of Franc Mayer "Mayer'sche K. Hof Kunstanstalt"[3]

<sup>&</sup>lt;sup>3</sup> Austrian factory of Albert Neuhauser «Tiroler Glasmalerei und Mozaik Anstalt»[9]

<sup>&</sup>lt;sup>4</sup> «Giovanni Zuliani i syn» (established in 1892 p. [5], but mosaic was made starting from 1883, A. Werner under the supervision of G. Zuliani [7])

<sup>&</sup>lt;sup>5</sup> (20 B. Lepkyi Str.; 3, 5 Yu. Slovatskyi Str.; 65 P. Doroshenko Str.; 1, 13, 17 S. Krushelnytska Str.; 5 I. Hryhorovych Str.; 5 Dudayev Str.; 10 K. Levytskyi Str.)

The period of secession (1900 - 1918) - the city continued its economic and cultural growth, which was depicted in the rapid development of construction<sup>6</sup>. This style in architecture was distinguished by the tendency of "revival": i.e. the bright coloristics and the active use of plant motifs and ornaments in decoration of buildings.[4] The tendency facilitated and found its reflection in application of mosaic in the Lviv architecture. Though the quantity of smalt mosaic compositions increased, there was no mosaic workshop in the city and the majority of compositions were made by the Krakiv factory of stained-glass windows and mosaic of S. Zhelenskyi. The smalt wall rhythmical ornamental and heraldic mosaics were applied in both the exterior and the interior of administrative and educational architecture8. Also, rhythmical compositions were used in the decoration of residential houses: 9 ornamental compositions with plant motifs at the window tiles placed at the main facade of the building at 36 Shota Rustavelli Str., and 28 (plus 2 not preserved) floral compositions at marble framing of the wall panels at the staircase in the interior of the building at 3 Mentsynskyi Str. The large-scale smalt iconographic compositions were used to finish the walls, the dome, the squinches, and the ceiling of the reorganized interior of the eastern part of the Armenian Cathedral, designed by Yu. Mehoffer; the mosaic was made at the factory in Murano, Venice, and was significantly influenced by Italy in its technical and compositional characteristics.[8] During the period of secession, the two major projects combining mosaic composition made of natural stone and terrazzo were implemented. In the former credit land community (4 Kopernik Str.), mosaic paved the floors of such spacious rooms as the lobby, the hall, and the operating room, and was used to make simple mosaic frames for terrazzo compositions at the side staircase (740 m<sup>2</sup> in total; interior architect K. Stefanovych[10]). Peculiar for the hall interior were the wall rhythmical ornamental insert panels made of natural stone, which were located above the doorways - three compositions for each of two projections. In the former "Krakivskyi" hotel (7 Soborna Square), the floor of the entrance lobby leading to the spacious hall was paved in the form of terrazzo carpets with modern mosaic ornamental frames and tiny insert panels arranged in the chessboard pattern. The large and small compositions conventionally subdivided the space into the main and additional functional zones and simultaneously united them into an integral space (140 m<sup>2</sup> in total).

The interwar period – is the period of modernism (1919 – 1939) and functionalism (1935 – 1939) in architecture.[2] The complicated post-war economic situation served as a certain restriction for the application of mosaic compositions in architecture of Lviv and, as a result, a few projects remained unfulfilled. The architectural style of these years was considerably simplified with the limited usage of decorations and polychromy, which was reduced to neutral colors. The tendency for achromaticity and "true" architecture – i.e. the color of the construction materials [4], was not favorable for the popularity of mosaic. Only two sample were preserved: the modernism in sacred architecture (the Ukrainian Greek Catholic Church of the Protection of the Blessed Virgin Mary, which is the former Church of the Mother of God of Ostrobram), and the mosaic amulet at the villa that dates back to the period of functionalism (8 Panchyshyn Str.).

The period of the totalitarian regime (1940 – 1956) is the difficult time for the development of the city. No samples of mosaic dating back to this period were located in the architecture of Lviv; most probably, they did not gain popularity and wide-spread application in the city architecture.

<sup>&</sup>lt;sup>6</sup> Increment of construction during 1900 – 1914 constitutes 109%. [2]

<sup>&</sup>lt;sup>7</sup> The former Chamber of Commerce and Industry, 17/19 T. Shevchenko Avenue (56 samples in the interior and 16 samples in the exterior).

<sup>&</sup>lt;sup>8</sup> The former private female gymnasium of Z. Stshalkovska at 22 Zelena Str. The exterior depicts the heraldic composition and the ornamental table with the name of the institution. The interior design of the large school hall was decorated with 15 heraldic compositions and one icon of the Black Madonna of Czestochova in the chapel behind the stage (mosaic in the interior is either coated with plaster or lost).[3]

<sup>&</sup>lt;sup>9</sup> The period of the Worls War II, German occupation of the city.[2]

During the Soviet period (1956 - 1991), according to the reconstruction and development plan, the city was to be transformed into a large industrial center. The number of inhabitants increased and new buildings united into brand new districts [2] were constructed with the monotony, functionality and efficiency being their characteristic features. The search for the new artistic language that would correspond to the requirements of the new epoch, illustrate and promote the ideas of the ruling power was conducted by the Communist Party of the Soviet Union through the prism of V. I. Lenin's ideas of social realism in art, as founded on the principles of national character and party affiliation, states the program of the CPSU.[11] During this period, mosaic compositions occupied a particularly important place and became one of the major means of expressing political ideology and agitation in architecture. As a result of the policies that displaced religion from the life of citizens, designers left the environment of sacred architecture and majorly adapted panel pictures to the nondescript facades and interiors of numerous public buildings and spaces. Mosaic compositions gave buildings their individuality, which identified them and provided them with the aesthetic coloring that had the subtle shades of ideology and agitation. Large monumental chromatic compositions located at the dim achromatic background of the construction served as a dominant and a colorful central point, which involuntarily captured attention of a viewer. Mosaic compositions were made as per state order and, therefore, the state contributed to ensuring inventory and logistics support and providing high wages for executors and authors of mosaic designs. The educational component came to the foreground as well and students of the Institute of Applied and Decorative Art made panel pictures for the city architecture under the supervision of their lecturers. 10 In 1969, the scientific and research department at the institute was established and it dealt with the execution of orders not only for Lviv and other cities, but also abroad: in the Caucasus region and Moldova.[12] One of the key organizations completing the orders at that time was the Lviv Artistic and Manufacturing plant (from 1946)<sup>11</sup>, headed by the Union of Artists of the Ukrainian Soviet Socialist Republic. All design projects had to be approved by the Arts Council at each stage of their execution and this was the way of monitoring whether the projects correspond to the political program of the state.

The post-Soviet period (starting from 1991) - having acquired its independence, the society "returns" to legalization of church, which, consequently, leads to the large-scale process of constructing, restoring and reconstructing sacred buildings. The tradition of mosaic finds itself in the spotlight of attention and "returns" to interior and exterior environment of temples of the byzantine rite with the new blend of stylistic language and modern technologies.[13]. Mosaic compositions are inserted into the environment of the existing temples that date back to different stylistic periods (Church of the Protection of the Blessed Virgin Mary at 175 Lychakivska Str.; Church of St. Joseph the Betrothed at 11 M. Zalizniak Str.; and others) and decorate the architecture of the newly-built temples (Church of the Nativity of the Blessed Virgin Mary at 2 Pope John Paul II Square (Fig. 2); Church of All Saints of Ukrainian People at 32 S. Petliura Str.; and others). The authors of mosaic designs of the local school are majorly graduates of the Lviv Academy of Arts (departments of monumental and sacred arts); execution of masters' and course projects as ordered by sacred objects in Lviv region and farther becomes more and more popular. Smalt for compositions is taken from stocks of the previous period and only separate necessary colors are bought additionally from the modern samples. At this stage, mosaic compositions are most frequently used to decorate sacred architecture in Lviv, and only a few samples are used in educational (Lviv National Academy of Veteri-

<sup>&</sup>lt;sup>10</sup> For example, diploma projects: in 1964, M. Krystapchuk made two panel pictures in the yard of the former House of Culture of Builders at 16 a Stefanyk Str.; O. Iniutin made the panel picture at the façade of the residential building at 38 Vitovskyi Str.; in 1971 Smirnov made the panel picture for the opening of Olena Kulchytska Artistic and Memorial museum at 7 Lystopadovoho Chynu Str.

<sup>&</sup>lt;sup>11</sup>With the monumental section (from 1964) and the monumental and paining workshop (from 1977)

nary Medicine at 50 Pekarska Str.), administrative Consulate of Canada at 2 Academ. Bohomolets Str.), private property (villa at 9 Rutkovych Str.), and other types of architecture.

Having analyzed the objects dating back to different periods, we outlined the typology of mosaic compositions in architecture as based on such criteria as **architect's design and date of creation**: a mosaic composition that is **presupposed** by architect's design and created during the process of building a construction; a mosaic composition that is **inserted** – i.e. not presupposed by architect's design, but inserted into the reorganized project of a construction and created during the process of its execution; a mosaic composition that is **adapted** – i.e. an easel mosaic composition created as a separate artistic work and adapted to the architectural environment.

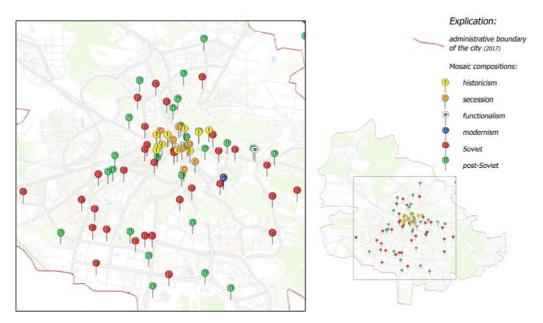


Fig. 1. Widespread mosaic compositions in the Lviv architecture (as based on the preserved samples of mosaic constructions) Source: N. Piddubna

# 2.2. Influence of the functional profile of buildings on the narrative palette of mosaic constructions

During field observations of mosaic in the Lviv architecture, we have revealed the interconnection between the narrative plots of compositions and the functional profile of buildings. Designers of mosaic compositions determine those characteristics that would reflect the content and the function of a construction and, thus, enhance associativity, clarity and recognition of an architectural image. The functional profile of an architectural object determines the content, shape and location of mosaic compositions in space, indicating its subordination to the functional peculiarities of a construction. Therefore, we have suggested the typology based on the criterion of the functional peculiarities of architecture 12, which go in line with the state classification of buildings [15] and the State Building Codes of Ukraine "Public buildings and constructions" [16]:

<sup>&</sup>lt;sup>12</sup> While analyzing an architectural object with mosaic compositions, we take into account the functional profile of a construction at the time when mosaic was made.

# 2.2.1. Residential buildings

The residential buildings of the neo-Renaissance period (10 preserved objects) and the period of secession (2 preserved objects) display the ornamental compositions that correspond to the stylistics of architecture. Mosaic icons of Virgin Mary in the format of small insert panels were placed as amulets at villas' facades [villa of functionalism at 8 Panchychyn Str.; there is information about the amulet for the residential house of Bromilski family, 1910 [3]). During the Soviet period, the side and back facades of newly-built and historical buildings were decorated with ideological and agitation mosaic compositions, the narrative plot of which was not connected with the functional profile of a building, but oriented itself at the space of a street or a square with the purpose of producing an influence and popularization of the communist ideology (2 preserved objects, more than 4 destroyed objects). Also, panel pictures were used to highlight the function of an architectural object that was located nearby or was adjacent to the facade of a building; this technique served to unite and organize the architectural space (3 preserved objects).

# 2.2.2. Non-residential buildings and constructions:

**2.2.2.1. Office buildings.** The interior and the exterior of these buildings display the rhythmical ornamental mosaic insert panels and the heraldic compositions, the elements of which partially or fully reproduce the symbols of state, city or land, depending on the type of affiliation and authority of the administration that was housed in the building (during the period of secession: the former Chamber of Commerce and Industry at 17/19 T. Shevchenko Avenue (Fig. 3, 7); and the former credit land community at 42 Kopernik Str.; during the period of independence: the Consulate of Canada at 2 Academ. Bohomolets Str., and others).

**2.2.2.2. Religious buildings.** During the period of independence, mosaic icons are used to decorate facades of monastery complexes (monastery complexes of: sisters of the Holy Family at 15 Yalovets Str.; sisters of Mercy of St. Vincent at 14 Selskykh Str.; sisters of St. Onuphrius at 36 B. Khmelnytskyi Str.).

**2.2.2.3. Industrial and transportation buildings** (tram depot No. 2 at 39 Promyslova Str.; tram depot No. 3 at 1 Troleybusna Str.) During the Soviet period, the ornamental compositions with a narrative plot<sup>13</sup> were used to reflect the direction of work of the institutions.

#### 2.2.2.4. Public buildings and constructions:

**Hotels, restaurants and similar buildings** — the preserved sample of mosaic was found in a building of the former secession hotel "Krakivskyi" at 7 Soborna Square, where the floor of a hall was made in the format of the mosaic ornamental carpet as combined with the technique of terrazzo. Also, there are references about the secession mosaic in the interior of the café "Sztuka"[3] (not preserved).

For buildings and construction of the functional type (such as **Commercial buildings** (Vynnykivskyi market at 3 Solodova Str.; the shop "Ocean" at 26a V. Velykyi Str.); **Buildings for public performances and leisure activities** (palace of culture: the former House of Culture of Builders at 16 a Stefanyk Str.; the Palace of Aesthetic Education of Student Youth at 2 Ye. Petrushevych Square; the Palace of Culture LORTA at 2 Riashivska Str.(Fig. 6)); **Museums** (the Olena Kulchytska Artistic and Memorial museum at 7 Lystopadovoho Chynu Str.); **Public healthcare buildings** (the geriatric rest home at 71 Medovoyi Pechery Str.), the ornamental compositions with symbolic meaning and with

<sup>&</sup>lt;sup>13</sup> Narrative composition is the composition with a narrative plot that depicts everyday household situations.

narrative plots were used during the period of the Soviet architecture in order to fully or partially reflect the direction, profile and work specificity of the institutions.

Educational and research institutions. The decorations exploit the heraldic (symbols of state, city or land) and the text mosaic compositions (the period of secession: the former private female gymnasium of Z. Stshalkovska at 22 Zelena Str.; the period of independence: the educational building of the Lviv National Academy of Arts at 23 Virmenska Str.). During the Soviet period, which was the period of the active establishment of educational and research institutions, architects used the narrative plots that emphasized affiliation of a construction to the area of education and frequently indicated the direction or peculiarities of educational process by depicting the figures of girls and boys while working with a certain object (book, parchment, pen, globe, test tube, etc.)<sup>14</sup>. For the pre-school educational institutions, architects used the pictures of nature, children or professions that are interesting for children (for example astronauts) (pre-school educational institutions: 18 Vechirnia Str., 29 Nekrasov Str., 24 Yaroslavenko Str.). The exception is the ornamental panel picture mosaic from 1996 at the building of the Lviv National Academy of Veterinary medicine (late 1970, 50 Pekarska Str [2]), which does not reflect any information about the architectural object.

**Sports buildings.** The Soviet period (70's – early 80's) was the time, when sports complexes in the city were actively built and re-constructed. The exterior and interior designs of the constructions used mosaic compositions with the narrative dynamic plot. The topic of sports was reflected by portraying figures in sports suits and with sports equipment<sup>15</sup>, which indicated not just affiliation of a building to the sports type of architecture, but made it clear which kind of sports is presented by the institution. Also, architects used compositions in the format of the sports emblems and the heraldry of the corporate, Olympic, state and city symbols (sports complexes: of Army at 39a Kleparivska Str.; "Spartak" at Zamarstynivska Str. (does not exist from 2016)).

Sacred buildings. For sacred constructions, the choice of the content of a mosaic iconographical composition is determined by its location within the architectural space. In the interior of a temple, mosaics usually occupy the central functional places and, therefore, emphasize and draw viewers' attention to them. The Byzantine tradition promotes the system of constructing the sacred space by following the principle of the hierarchy of images [17], according to which the icons of God, Jesus Christ, and Virgin Mary are large in size and occupy the central places, like the dome or the center of an apse, while the icons of apostles, saints, angels and other elements are smaller in size and occupy the position in order to supplement the main composition (e.g. side walls, squinches, etc.) (the Armenian Cathedral at 7-13 Virmenska Str.). Most frequently, the exteriors portray iconographic compositions, the narrative plot of which correlates with the name of a parish. Such compositions are placed at the main facade to crown and emphasize the entry portal of a temple (the former Church of Holy Jesus' Heart at the monastery of the Franciscan sisters of the Eucharist at 43 Lysenko Str.; the Church of St. Andrew at 38 Varshavska Str.; the Church of Sts. Borys and Hlib at 148v Stryiska Str., the Church of St. Joseph the Betrothed at 11 M. Zalizniak Str., etc.

Having studied the functional typology, we classified the mosaic compositions in the Lviv architecture **as based on the main narrative lines** into: ornamental, heraldic, text, iconographical, symbolic, narrative, and ideological.

<sup>&</sup>lt;sup>14</sup> The secondary school "Leader" at 59 Nekrasov Str.; the secondary school No.86 at 34 Skoryna Str.; the Lviv High Vocational School of Restraurant Service and Tourism at 36 I. Puliuy Str.; the Technical College at the Lviv Polytechnic National University at 17 M. Pymonenko Str.; the IX educational building of the Lviv Polytechnic National University at 9 St. Yura Square; the Ukrainian National and Scientific Institute of Printing Industry named after T. H. Shevchenko at 4 V. Velykyi Str.; the Lviv Design Institute at 52 V. Velykyi Str.

<sup>&</sup>lt;sup>15</sup> The Palace of Sports "Halychyna" (the former "Budivelnyk") at 8 Kerchenska Str. (Fig. 4); "Ukraine" (the former "Spartak") at 18 Melnyk Str.[18]; the sports complex "Labor Reserves" at Snopkivska Str.

The narrative plots of mosaic compositions as based on the degree of reflecting the function of a construction can be: actual – fully reveal affiliation of a construction to a certain functional type (for example, text with the name of a construction, heraldic, iconographic); associative – partially reveal affiliation of a construction to a certain functional type (symbolic, narrative), independent – not linked to a certain functional type (ideological).

### 2.3. Compositional and spatial typology of mosaic in architecture

Having analyzed mosaic compositions as a constituent component of the architectural space system, we outlined the main compositional and spatial characteristics and the patterns of their application, which serve as a basis for defining their types in the architectural environment.

# Mosaic compositions as based the criterion of their location in the architectural space:

In the **exterior** design, mosaic compositions are placed at: main facade; back facade; side facade; small architectural form; pavement.

Most frequently, mosaics are applied at the main facades. During the Soviet period, mosaic compositions started to be used at the side and back facades. Oftentimes, these are panel pictures inscribed into the existing constructions, located at the spacious surface of a facade and, sometimes, a part of architect's design of a newly-built construction16. In the Lviv architecture, there are samples dating back to the Soviet period, which have an interesting spatial solution of mosaic compositions that are continuously expanded from the main facade to the side one (the shop "Ocean", the Lviv Design Institute). The exception is the use of the mosaic frieze at the back facade of the Army Sports Complex at 29 Kleparivska Str., which consists of four cascade avant-corps portraying the continuous composition (the panel picture is on the verge of destruction). Also, unique for the architecture of Lviv is the pavement near the cultural and artistic center "Museum of Ideas", which is designed in the format of the large mosaic composition "The Shadow of The Tree" (2015), made of glass and ceramic pieces. (Tab. 1, Tab. 2)

In the interior design, mosaic compositions are placed at: walls, floor, ceiling (dome).

The most popular for the Lviv interior design is the usage of the wall mosaic compositions, which were most actively produced during the period of the Soviet architecture. Mosaic floors are characteristic for the architecture of lobbies created during the period of historicism in the late 19th century. Mosaic ceilings and domes are present exclusively in the architecture of sacred objects (the mosaic of the early 20th century in the Armenian Cathedral and the mosaic produced from 2010 till the present time in the Church of the Nativity of the Blessed Virgin Mary, at 1 Pope John Paul II Square). (Tab. 3, Tab. 4)

Access to mosaic compositions in the architecture is connected with openness of a building for public. This concerns mainly compositions located in the interiors of residential and public buildings with the limited or closed access, or the exteriors of building complexes of the closed type. During field observations, we have concluded that the visual access to mosaic compositions in the Lviv architecture is divided into two types: open (unlimited) and limited (partially visible or visible only with special passes). Therefore, the access to mosaic compositions determines the degree of their participation in the visual image of the city as: universal or direct – (in the city environment), open, unlimited, in the space of a street, an avenue or a square; local or indirect – (in the limited space) local, which influences a part of the whole without crossing the borders of an architectural object or a complex.

-

 $<sup>^{\</sup>rm 16}$  Used in the sacred architecture during the period of independence.

Tab.1.Correlation between the location of mosaic compositions in the exterior design and the functional profile of a construction in the architecture of Lviv during the time span from the late 19th century till the early 21st century (as based on the preserved samples of mosaic constructions). Source: N. Piddubna

:	Residential	Non-residential	Office	Religious	Industrial, transportation	Public:	Hotels, restaurants	Commercial	For public performances	Museums	Educational and research	Public healthcare	Sports	Sacred
main facade	4	36	2	2	1	31		3	1		11	1	5	10
side facade	4	17		1	2	14		2	1		6		1	4
back facade		3				3			1		1		1	
small architectural form		5			1	4			1		1			2
pavement		1				1				1				

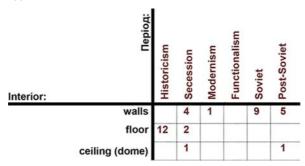
Tab. 2. Correlation between the location of mosaic compositions in the exterior design and the period of their application in the architecture of Lviv. Source: N. Piddubna

Exterior:	Historicism	Secession	Modernism	Functionalism	Soviet	Post-Soviet
main facade	2	3		1	19	15
side facade					15	6
back facade					3	
small architectural form					3	2
pavement						1

Tab. 3. Correlation between the location of mosaic compositions in the interior design and the functional profile of a construction in the architecture of Lviv during the time span from the late 19th century till the early 21st century (as based on the preserved samples of mosaic constructions). Source: N. Piddubna

Interior:	Types of architecture:	Residential	Non-residential	Office	Religious	Industrial, transportation	Public:	Hotels, restaurants	Commercial	For public performances	Museums	Educational and research	Public healthcare	Sports	Sacred
	walls	1	18	3			15			3	1	4		2	5
	floor	10	4	2			2	1							1
	ceiling (dome)		2				2								2

Tab. 4. Correlation between the location of mosaic compositions in the interior design and the period of their application in the architecture of Lviv. Source: N. Piddubna



# Mosaic compositions within an architectural object as based on the criterion of their quantity and originality

One – original – mosaic composition within one architectural object.

Two or more – original – compositions with different narrative content, which usually supplement each other. Unrelated compositions are separated by location in space (for example in exterior and interior design of one object).

Two or more – with repetition – compositions as duplicated within an architectural object are used to create rhythmical compositions. Repetitions are used: without changes in composition or with partial changes of: picture, contour, size, or color.

# Mosaic compositions as based on the criterion of compositional location within the architectural space:

Open – mosaic composition, which is located at a wall, does not cover it fully and is not framed by an architectural molding; usually has irregular contour. This type of compositions was popular during the Soviet period.

Closed – mosaic composition, which covers an architectural surface but does not cross its borders or mosaic composition that is framed by an architectural molding.

As based on the criterion of contour geometry: rectangular, square, triangular, circular, oval, half-round (semicircular, bow-shaped), arched, of irregular form.

The most frequently used contour geometry that is peculiar for the Lviv architecture is rectangular, the second most widespread one is an irregularly-shaped contour, which is built repeating the contour of a picture or fills the space of an irregular form. Semicircular and arched compositions are characteristic for the sacred objects, often of the closed type, and usually fill in a niche. Mosaics of square, circular, oval and triangular geometry, usually of the closed type of composition, have not become widespread in Lviv.

As based on the criterion of dimension in space: plane – a composition that is placed on one surface; dimensional – a composition that is placed on a concrete relief, started to be used in the Lviv architecture during the Soviet period.

As based on the criterion of size in architectural space: small (up to 50 sm<sup>2</sup>), medium-sized (from 50 sm<sup>2</sup> till 150 sm<sup>2</sup>), large (from 150 sm<sup>2</sup>).

Compositions of small and medium size, mainly of the closed type, are inserted into an architectural form and framed by an architectural molding. Large compositions, usually of the open type, are oftentimes located at spacious surfaces of a facade and were popular during the Soviet period.



Fig. 2. Fragments of interior decoration of the Church of the Nativity of the Blessed Virgin Mary at 2 Pope John Paul II Square. Source: il. N. Piddubna, 2013



Fig. 3. Fragment of mosaic from the facade of the Prosecutor's Office of Lviv Region (the former Chamber of Commerce and Industry at 17/19 T. Shevchenko Avenue). Source: il. N. Piddubna, 2009



Fig. 4. Fragment of facade of the Sports Palace "Halychyna", SOLIT Ltd. (the former "Budivelnyk"), at 8 Kerchenska Str. Source: il. N. Piddubna, 2017



Fig. 5. Fragment of interior decoration of the residential house staircase, 5 l. Hryhorovych Str.;. Source: il. N. Piddubna, 2017



Fig. 6. Mosaic composition in the interior of the Palace of Culture LORTA at 2 Riashivska Str.. Source: il. N. Piddubna, 2017



Fig. 7. Fragment of staircase of the Prosecutor's Office of Lviv Region (the former Chamber of Commerce and Industry at 17/19 T. Shevchenko Avenue). Source: il. N. Piddubna, 2017

#### 3. CONCLUSIONS

Taking into account the preserved samples in the architecture of Lviv from the late 19th century till early 21st century, we have analyzed the usage of mosaic compositions and determined their typology in the context of the chronological and stylistic dimension, the functional typology of architecture and the compositional and spatial solution in architecture. The research results have proven that mosaic in decoration of Lviv constructions is an important element of architectural composition that is tightly connected with the architectural space for which it is designed and influence the visualization of streets and the city image in general. The architects entail mosaic with the function of representation that facilitates identification of the functional profile of an architectural object, organizes and subdivides the space, which, in its turn, enhances the architectural composition and the image of a building, emphasizes and foregrounds it in the space.

The narrative palette, popularity and peculiarities of using mosaic compositions in the architecture of Lviv correspond to the general direction of the stylistic period and are guided by the economic and political situation. They are actively used during the periods of the intense development of the city, its economic and construction growth, and become widespread in those functional types of public spaces that are the most socially and politically crucial at the certain stage. During the periods of economic decline, mosaic disappears from the city decorations.

#### **BIBLIOGRAPHY**

- [1] Vlasov V. Novyy entsyklopedicheskiy slovar` izobrazitel'nogo iskusstva: v 10 t. / Vlasov V. SPb.: Azbuka-klassika, 2006. – 5 t. – S. 585-586.
- [2] Arhitektura L'vova: Chas i styli. XIII–XXI st. L.: Centr Yevropy, 2008. S. 240-263, 387, 607-612.
- [3] Smirnow J. Lwowskie mozaiki historyczne / Jurij Smirnow //: [Elektronnyy resurs]. Rezhym dostupu: http://barwyszkla.pl/lwowskie-mozaiki-historyczne/ Data dostupu: trav. 2017 r. Nazva z ekranu.
- [4] Efymov A. V. Kolorystyka goroda. / A. V. Efymov. M.: Strojyzdat, 1990. S. 41-44.
- [5] Borodin K., Gonak I. L`viv po polsku znak yakosti / Kseniya Borodin, Ivanna Gonak // L`viv: Drogobych: Kolo,2015. 152 s. S. 44-45.
- [6] Kazanceva T. Teraczovi pidlogy u L`vovi: evolyuciya zastosuvannya, kompozycijnyy ta stylistychnyy analiz / Tetyana Kazanceva // Visnyk NU «L`vivs`ka Politehnika» «Arhitektura». – 2016. – S. 228-235.
- [7] Posadzki kamienne Gazeta Lwowska. 1884, nr 111.
- [8] Kultury i Dziedzictwa Narodowego Książka Joanny Wolańskiej o katedrze ormiańskiej w Lwowie Katedra Ormianska w latach 1902/38 w serii "Poza Krajem", Warszawa: MKiDN, 2010.- 560 S. 40-42.
- [9] Grankin P., Mozayiky v ozdoblenni sakral'nyh sporud L'vova (druga pol. XIX persha pol. XX st.) / Pavlo Grankin // Materialy XIV mizhnarodnoyi konferenciyi. Istoriya religij v Ukrayini. 2004 r. L.: 2004. S. 203-208.
- [10] Biryulyov Yu. O. Mystecztvo I'vivs'koyi secesiyi L.: Centr Yevropy, 2005. S. 52.
- [11] Programma Kommunisticheskoy partyyi Sovetskogo Soyuza M.: Politizdat, 1969. S. 131.
- [12] Mel'nyk I. A. Naukovo-doslidnyy centr akademiyi mystetstv / Ivan Mel'nyk //«Rukotvir» #1 L'viv: Naukovo-doslidnyy centr LAM, 2010. – S. 9-10.
- [13] Piddubna N., Radoms'ka V., Tyrpych I. A. Identyfikaciya sakral'noyi arhitektury za poserednytstvom mozayik i stinopysiv // "Mir nauki i innovatsyy". Vypusk №2, Tom 10. Ivanovo: "Nauchnyy mir", 2015. – S. 61-64.
- [14] Piddubna N., Radoms`ka V. Mozayichni dekory L`vova. Istorychnyy aspekt. / N. Piddubna, V. Radoms`ka // Visnyk NU «L`vis`ka politehnika» L.: L`vivs`ka politehnika, 2013. S. 374-383.
- [15] DK 018-2000 «Derzhavnyy klasyfikator budivel` ta sporud». K.: Derzhstandart Ukrayiny, 2000.
- [16] DBN B.2.2-3-97 «Budynky i sporudy. Gromads'ki budynky i sporudy. Osnovni polozhennya».
  K.: Derzhbud Ukrayiny, 1999.
- [17] Demus O. Mozayiki vizantiyskih hramov. Princypy monumentalnogo iskusstva Vizantiyi / Otto Demus / Per. s angl. Smirnovoy Э. S., red. Preobrazhenskiy A. S. – M.: Indrik, 2001. – S. 6-10.
- [18] Tregubova Tetyana, Myh Roman, L`viv. Arhitekturno-istorychnyy narys Yunist' Starodavnyogo Mista (1960-1980-i roky) / Tregubova Tetyana, Myh Roman // Rezhym dostupu: http://www.alyoshin.ru/Files/publika/tregubova/tregubova\_19.html
- [19] Grankin, P., Mozaiki firm witrażowych we Lwowie // Witraż w architekturze, architektura na witrażu", Kraków, 2011, S. 33.
- [20] Posats'kyy B. S. Prostir mista i mis'ka kul'tura (na zlami XX XXI s.)/B. S. Posats'kyy. L.: L'vivs'ka politehnika, 2007. – S. 101.

#### **AUTHOR'S NOTE**

Natalia Piddubna – assistant and postgraduate student of the Department of Restoration of Architectural and Art Heritage, Institute of Architecture, Lviv Polytechnic National University. Scientific subject: Research of mosaic compositions application in Lviv architecture.

Contact | Kontakt: nat.piddubna@gmail.com