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POLYCHROMY ON THE FACADES OF L`VIV BUILDINGS IN THE SECOND HALF OF THE NINETEENTH CENTURY – TECHNIQUES, MATERIALS AND THEIR MANUFACTURERS

POLICHROMIA NA ELEWACJACH BUDYNKÓW LWOWA DRUGIEJ POŁOWY XIX WIEKU – TECHNIKI WYKONYWANIA, TWÓRCY I MATERIAŁY

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ABSTRACT

On the base of field research, polychrome techniques and materials on the facades of L`viv buildings in the second half of the nineteenth century have been classified. On the base of the analysis of archive documents, periodicals, address books and catalogues, we have found companies and manufacturers of polychrome techniques and materials, identified architects who influenced upon their use.

Key words: companies and manufacturers of polychrome techniques and materials, L`viv, the second half of the nineteenth century.

STRESZCZENIE

Na podstawie badań terenowych zostały sklasyfikowane techniki polichromii i materiały na elewacjach budynków Lwowa z drugiej połowie XIX wieku. Na podstawie analizy dokumentów archiwalnych, periodyków, książek adresowych i katalogów odnaleziono firmy i producentów technik i materiałów polichromatycznych, zidentyfikowanych architektów, którzy wpłynęli na ich wykorzystanie.

Słowa kluczowe: firmy i producenci polichromii i materiałów, Lwów, druga połowa XIX wieku.

*Dedicated to the memory of the extraordinary course of lectures
"Historical materials and techniques in architecture" by Kost' Prysiazhnyi*

1. INTRODUCTION

In the second half of the nineteenth century, namely in 1870, the city of L`viv became the capital of Galicia, which provoked its intensive comprehensive development. L`viv as an important cultural, administrative and commercial centre belonged to major European cities. New buildings in L`viv were built in the style of Historicism, which developed in the Neo-Renaissance, Baroque, Medieval and Vernacular trends. That time under the influence of Gottfried Semper the polychrome techniques and materials in architecture gained popularity. Polychromy in architecture is a very short-lived aspect, which easily can be changed or destructed. Architectural heritage of historical city of L`viv belongs to UNESCO World Heritage List (since 1998) however no controlled development of touristic industry in L`viv, the absence of severe building legislation concerning polychromy, the lack of funds for qualified restoration causes constant and consequent ruination of L`viv polychromy [21, 25].

In addition, the second half of the nineteenth century is not so distant in time as, for example, the Middle Ages. Therefore, we have a great opportunity to classify the preserved samples (The question of the evolution of polychromy in L`viv architecture of the nineteenth century was partly considered in [22, 28]). Moreover, as the aim of this publication, we can identify the creators and manufacturers of the polychrome techniques and materials and explain the tendency of their use on the facades of L`viv buildings of the second half of the nineteenth century. The study is based on the analysis of periodic sources that were published in L`viv at that time or which dealt with L`viv, special architectural or art issues, address books, where advertising was placed etc. In addition, the material base of this research is the set of all L`viv buildings, facades of which can be attributed to the second half of the nineteenth century.

2. THE MAIN THEORETICAL PART

In terms of facades polychromy, the second half of the nineteenth century can be divided into two periods: before and after the period of autonomy. Thus, one of the legal requirements of the Austrian building legislation until 1885 was the **restrained polychromy of facades** that imitates the surface of natural stone in various gray and ochre shades. In addition, architectural plastic was emphasized with polychrome means, namely projecting architectural elements (such as cornices) were highlighted with lighter shades and buried elements (such as plane wall) - with darker shades. Therefore, the field research of façade polychromy Galicia Sejm [45] (1877-81) showed a complex polychrome decoration with dark cream façade plane, white details and gray color of columns and socle. Such architectural painting is depicted on old postcards of the Sejm [8]. Revealed finish corresponded with the fashion and building standards of the nineteenth century. Bright polychrome Renaissance and Baroque facades on the Market Square [23] did not meet the aesthetic tastes of the second half of the nineteenth century. Research of Kost' Prysiazhnyi and Myroslava Mayorchuk has shown that authentic coloured facades in the Market Square were repainted with cement mortar in the middle of the nineteenth century and gained delicate palette of ochre, gray and light-green color. It was the time of so refined colour concept that even white colour was perceived as something too bright. A letter of magistrate (1879) evidenced that the owner of the house on 10 Market Square was asking to repaint the façade in a restrained color, because the dazzling white frames stroke the eyes of passers [48]. The rebuilt façade on 11 Market Square was painted in ochre color, architectural decoration - in gray, on 22 Market Square the façade was painted in different shades of gray (Ukrainian Regional Specialized Scientific and Resto-

ration Institute, 1996 [47]). In general, stratigraphic analysis of façade paintings until 1885 confirms the common polychrome design.

However the Building Statute of 1885 [34, p. 487-501] had no mention of color, therefore L`viv architects had no restrictions by the Austrian authorities in use of polychrome facades, required only their high aesthetic design. Therefore, in the end of the nineteenth century, polychrome facades design became brighter and more varied. According to field research of West Ukrainian Restoration Institute, common color facades schemes were found, namely red background and light details (City Casino [52], the Grand Hotel), which reproduced in its decoration the features of the late Baroque (Fig. 1). A similar painting we observe in watercolours and postcards of that time, including the building of the former city shooting range [7], which probably appeared under the influence of open brick masonry of facades in picturesque style (Fig. 2). Another trend for painting of plastered facades in the end of the nineteenth century was a bright colouristic design according to the architectural decoration and aerial perspective. This is reflected in the bright (almost white) painting of moulding and columns and a gradual increase of brightness of façade - from dark gray socle to much lighter upper floors. Actually, such painting we can see in old postcards of Opera House [5]. It is also confirmed by laboratory tests of authentic polychrome, including facades of the house on 8 Matejko Street [53].

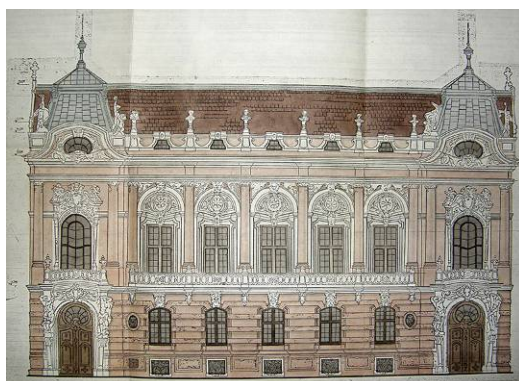


Fig. 1. Authentic polychromy of the City Casino façade, 1899. Archive of Ukrainian Regional Specialized Scientific and Restoration Institute 'Ukrzakhidproektrestavratsiya'. Source: [52]



Fig. 2. Façade painting of the former city shooting range. Watercolour of the end of the nineteenth century. Source: [7]

During the period 1886-1911, we have found only one manufacturer and thus vendor of **façade paints** for L`viv façades. This is Carl (Karol) Kronsteiner [6, 39], the owner of the Viennese factory 'Façade Farben Fabrik', founded in Vienna from 1860. In L`viv Kronsteiner sold his facade paints from 1886 until 1911, first he transported them directly from Vienna, and only in 1903 opened his head warehouse in L`viv in A. Hübner`s city house in 38 Market Square [15]. The absence of other proposals during this period suggests that L`viv facades were painted in the same color as Vienna, which satisfied inhabitants. Carl Kronsteiner, advertising his products as necessary to renew the facade after a severe winter or hot summer, describes that his paints give shine to the facades, similar to oil painting [14, 16]. Number of colours in his assortment were gradually increasing: 36 in 1886, 40 in 1893, and 50 in 1911 according to advertisements. A large number of shades of colour indicates the complex colour palette of the period and refined colour perception of L`viv citizens. The palette of this colours is presented in the catalogue of facade paints of Carl Kronsteiner`s factory kept in Arts and Crafts Museum in Zagreb (Croatia) (Façade-Farben Carl Kronsteiner Wien [31]. Palette of colours is available to us due to their coding through Pantone Color and CMYK (The authors are grateful for the coding of Carl Kronsteiner`s catalogue to Koraljka Vlajo, Senior Curator, the Head of Design Collections,

Museum of Arts and Crafts, Zagreb, Croatia). Among the proposed shades, one can see both delicate ochre and rather contrasting red and blue colours, which is not very consistent with concepts of Historicism polychromy, but perhaps served for **advertising paintings**, which were very popular at the time.

Such advertising paintings mostly were located on the first floors only, but sometimes can spread all over the entire facade, as in Jan and Karol Schulz' house in 38 Market square with advertising of paints and decorative materials of 'Alojzy Hübner' company and storage [35]. Advertising paintings can be studied due to the destruction of façade plaster [30], archival photographs and suggestions in address books of the time. Masters, who painted these ads, were called 'malarze szyldów' ('painters of signboards'), and, judging by their numbers in advertisements, the demand for them was high [33, 42]. Generally, these advertising paintings can be divided into two types. Diagonal and, rarely, horizontal stripes, which indicated the newly opened shops, often in the Jewish quarter can be attributed to the *first type*. Colouristic of these stripes pointed to the certain historic period: yellow and black (Austria-Hungarian Empire), white and red (Poland Republic). Inscriptions and drawings of sold goods can be referred to *the second type*. The advertising paintings of both types were located on rustication, intervals between them, blind windows, friezes, firewalls etc. Such decoration is exceptionally interesting in terms of research of façade polychromy because these inscriptions were mainly performed in authentic color of facade. For more than 30 preserved specimens of advertising paintings one can find a very large number of expected shades of gray, ochre, cream, but also unusual for the period bright rich colours like blue, turquoise, red, dark gray (almost black), which were likely the background for the ad (Fig. 4).

Besides Carl Kronsteiner two small storages of façade and other paints existed at that time: W. Czopp (from 1843) [12, 44] and O.T. Winckler (from 1856) [9]. Since 1892 the first Galician chemical-technical factory of Henryk Blumenfeld [40] have existed in Lviv, but information about the sale of facade paints appeared only in 1907 [1]. Although in contemporary advertisements, the authors of the herewith paper have found the lists with dozens of small storages, which sold paints and varnishes, but without remarks that they were for façade painting.

Another manifestation of picturesque trend of Historicism was the appearance of **decorative paintings** on the façades. We have no information about painting on the facades of L'viv buildings of Renaissance or Baroque period; therefore, the architects of the late nineteenth century followed polychrome façades of the Italian Renaissance and other European countries. Of course, in a humid climate of L'viv painted façades could not get widespread. In the 19th century in L'viv the painters did not know the Keim technique of mineral painting (Keim technique appeared only in 1920-s in L'viv as paintings in Studite's chapel), resistant to atmospheric conditions, therefore this fact limited the use of façade paintings which preserved in a very bad state.

A little quantity of preserved paintings can be divided into two groups. *The first group* includes those that reminds Sgraffito because of their earthen palette (black, ochre, white, red, gray shades). The most characteristic here is the Schulz brothers' mansion (Fig. 5-6), which walls are covered with paintings, imitating the architectural Renaissance decoration (like the Sgraffito of Silesia) that was designed by authors (architects Jan and Karol Schulz, 1899) even on the stage of project drawing (1895) [2]. The use of such paintings on panels of the upper floors also characterized the creative manner of Ivan Dolynskyi e.g. playing *putti* with attributes of art and fruits (34 Lemyka Street, 1898) [41] or the Mother of God with Jesus (22 Mushaka Street). In addition, this was typical to the creative manner of Karol Boublik e.g. arabesque ornaments on the facades on 2-4 Parkowa Street (1898) (Fig. 7). *The second group* includes bright multicolour paintings like those that decorate the façades of the Italian Renaissance. The most spectacular example here is the façade of Chopin Hotel (architect Franciszek Skowron, 1897) covered with colourful paintings of Neo-Renaissance ornament with garlands and plant decoration.

The richness of these paintings was covered with plaster for many years and appeared only during the restoration of the building (architect Yevhen Sobolievskiy, 2000s) (Fig. 8). Accordingly, we can assume the existence of paintings on the facades of other buildings in L`viv at the time, waiting to be discovered. In particular, because of plaster ruination on deaf windows of the house on 30 Samchuka Street we can observe the presence of paintings in New Baroque style - bouquets in vases of blue tones. The creative manner of the architect of this building Jakób Rysiak was characterized with the use of picturesque paintings both on the façades and on interiors.



Fig. 3. Catalogue of facade paints of Carl Kronsteiner's factory (Facade-Farben Carl Kronsteiner Wien: brošura). Source: [31]



Fig. 4. Advertising painting with cobalt background on the wall of Andreoli passage. Source: photo by Tetiana Kazantseva



Fig. 5. Fragment of façade painting of Schulz brothers' mansion. Ochre background and black outline. Source: photo by Sergii Lieonov



Fig. 6. Façade painting of Schulz brothers' mansion. Imitation of architectural decoration like Sgraffito. Source: photo by Sergii Lieonov

At the beginning of 1880, the **mosaics** appeared on L`viv facades. We have no information about the use of this technique in earlier periods, while it appears in a picturesque tendency of historicism as a following of early Byzantine art. Similarly to their origin, mosaics decorated facades of L`viv sacral buildings. In addition, the conception of manual production opposed to machine production was typical for the second half of the 19th century and influenced upon the spreading of mosaics. Luxury however small mosaic composition decorate the facades of Franciscan Church (Lysenko Street) (Fig. 9-10) and the Church of St. George (Korolenko Street). The use of vivid open colours (red, blue, green, yellow) on a gold background according to medieval tradition characterized these works of art.

However, Julian Zachariewicz, designing polychrome decoration of Franciscan Church, noted that it 'cannot be done in the Land' (Galicia) [18]. Accordingly, mosaics production was ordered to the Austrian companies that also produced stained glass for L'viv buildings of the second half of the nineteenth century - the companies 'Franz Mayer Königliche Bayerische Hofkunstanstalt für Glasmalerei' and 'Tiroler Glasmalerei und Mozaik Anstalt'. Great cost of mosaics, the absence of local production has limited the spread of this picturesque technique.



Fig. 7. Fragment of façade painting of the façade of 4 Parkova Street. Imitation of Sgraffito. Source: photo by Tetiana Kazantseva



Fig. 8. Fragment of façade paintings of the façade of Chopen Hotel (after restoration by Yevhen Sobolevskyi, 2000s). Source: photo by Tetiana Kazantseva



Fig. 9. Polychrome design of entrance of Franciscan Church. Source: photo by Tetiana Kazantseva



Fig. 10. Mosaic on the brick façade surface of Franciscan Church. Source: photo by Sergii Lieonov

Another approach to the decorating of the facade in the second half of the nineteenth century was masonry with opened brick surface [27], plastic and colourful combination of which often became a main façade decoration. The first manifestation of this trend appeared in L'viv in 1850-s, in the architecture of so called *Rundbogenstil*, namely in the House and Chapel for war veterans (Kleparivska Street). Instead, this style was not widespread in L'viv, and a tendency to demonstrate opened brick surfaces revived in the late nineteenth century in combination with other beautiful finishing and building materials. In fact, architects Teodor Talowski and Napoleon Łuszczkiewicz used brick masonry in combination with stone incerts on the facades of the buildings (villas Yu. Wang, 'Przystań'). Traditionally the façades of industrial buildings were created in 'brick style', e.g. Water Tower located in Stryjski Park by Arnold Röhring (Fig. 11). To create a brick surface of the façade special facade brick was used (so called *Ziegelrohbau*, *Verblender*

[20]) and glazed bricks (Fig. 12), which have been actively produced by local brick factories [38, 32]. Actually, in the late nineteenth century in L'viv and Galicia many factories appeared. We can name the most important of them, e.g. 'Stillerówka' (1867) [43, 50], Berl Neuwohner's factory (from 1873), Ivan Lewynskyi (from 1888), 'Krasuczyn' (from 1880s) [20], J. Rzędowski, 'Reiss' factory (from 1889) [37]), 'Bracia Mund' (from 1898) [36], A. Werner's factory in 'Glinśko' [11] etc. They manufactured, sold and installed the ceramic production such as bricks, roof and floor tiles and majolica. In particular, in his own house (1893, 98 Franka Street) Berl Neuwohner used brick ornamented masonry with majolica tiles (Fig. 16) as the advertising of his factory products on the main road to the Regional Exhibition of 1894 [4].

In the second half of the nineteenth century, brick factories in L'viv produced not only the brick, but also other ceramic elements, including ceramic wall and floor tiles. Actually, **facade majolica** [26] has a special place in this new architectural decoration of the late nineteenth century due to its saturated color palette and ability to reflect light. Such interest definitely appeared under the influence of architectural majolica manufactured by della Robbia family in the Italian Renaissance, which heritage was well-known in the late nineteenth century. We have no information about the use of majolica in L'viv Renaissance, while it got extremely active spread and diversity on the facades of L'viv buildings of the nineteenth century.

A wide range of majolica of picturesque style is generally consisted of monolithic elements (coats of arms, cartouches, stars and square tiles (from which arabesques were made. On one building façade, one can see almost all kinds of majolica of that time, such as on the mansions of Jan Styka (Fig. 13), Bruno Bauer or Galician saving bank. Sometimes majolica tiles were inserted singly as a rare jewel (Dasheks' villa). Majolica of the late nineteenth century similar to its Italian sample was relief. This relief mostly caused the pollution of surface and distortion of color. Cleaning by authors of majolica tiles on the facades of houses in 41 Kotlyarevskogo Street, 27 Konovaltsia Street, 21 Chupryny Street revealed its authentic palette: orange, blue, green and brown colors on a white background. Tiles with rosettes or rustication were black with brown tint (4 Kolberga Street) and green (1 Uzhhorodska Street).

Much less in the end of the nineteenth century smooth ceramic tiles were used. They were decorated with floral compositions and versions of an ornament that followed folk Hutsulian painted tiles. Actually, ceramic factory of Ivan Levynskyi (Fig. 14) had its painting department, where prominent artists of that time designed colours and ornamentation of tiles. Tiles with folk ornaments decorated facades built by architects interested in manifestation of folk motives - 19 Chupryny Street (Michał Kowalczyk) and 32 Mushaka Street (Ivan Dolynskyi).

Obviously, majolica façades of the late nineteenth century became the most appropriate polychrome material in L'viv due to its resistance to excessive moisture of the climate, affordable price (compared to mosaics), due to the presence of local manufacturers (Fig. 20), particularly I. Levynskyi's factory [12]. At the same time, a huge number of ceramic products were exported from the Czech Republic, Austria, partly from Romania and Germany at low prices, which provided a large number of varieties of products.

Wooden decorative and structural elements were additional polychrome emphasises that enriched the palette style of facades in picturesque style. Since 1880, namely in Ethnography Regional Exhibition in Kolomyia, the active development of the national architectural and artistic traditions started in L'viv. The construction boom in the late nineteenth century in Galicia led to the emergence of a network of workshops and factories engaged in the manufacture of building products and crafts. In the late nineteenth century L'viv was the centre of wood manufacturing, L'viv companies (as 'Tartak i Fabryka Parowa Wyrobów Stolarskich i Parkietów Braci Wczelak' (before 1873) [10], 'Marcin Prugar i Syn' (1854) [19] determined the artistic and technical level of production. At the beginning, the building company of Ivan Lewynskyi collaborated with such companies,

in particular for manufacturing of timber construction and decoration of exhibition hall in L'viv in 1892 and other buildings. Since 1896 real joinery workshop opened at the Levynskyi's factory, which also held teaching students, and in 1911 transformed into a real joinery factory [55].



Fig. 11. Brick masonry in combination with stone inserts. Water Tower of the Regional Exhibition of 1894. Source: photo by Sergii Lieonov



Fig. 12. Polychrome brick masonry contrasting with disharmonious color of modern roof. Source: photo by Tetiana Kazantseva



Fig. 13. Arabesques made from majolica tiles on the façade of Jan Styka's villa. Source: photo by Tetiana Kazantseva



Fig. 14. Majolica tiles as advertisement on the façade of Ivan Levynsky's factory. Source: photo by Sergii Lieonov

Researchers divide wooden architectural elements on the facades of L'viv buildings of the second half of the nineteenth century into two styles: made in *Hutsulian style* (geometric relief ornament, high roofs) and *Zakopane style* (vegetative plane ornament, verandas). Two outstanding architects, Julian Zachariewicz and Edgar Kováts [29] actively declare the spreading of these styles. Julian Zachariewicz after studying of Carpathian wooden folk architecture used these elements on the facades of his villas in Kasteliwka district (1880-1890-s). The arsenal of wooden elements includes verandas (Fig. 15), balconies, roofs, brackets under the roof and roof frame structures (Fig. 16), roof and attic windows, towers, pergolas (courtyard of the house on 52 Antonovycha Street). The architect and theoretic of art Kazimierz Mokłowski worked out the theory of the union of this two styles in one style of Carpathian mountains and realized it in his buildings (38-40 Pekarska Street) [46]. Another trend that has spread in the late nineteenth century was following to the elements of Northern Mannerism architecture, namely the combination of rich carved wooden frame with plastered filling. In this style of the late Historicism, few facades were performed, e.g. Dombchanska's Villa (35 Chaikovsky Street), already men-

shioned Schulz brothers' mansion (56 Khmelnytsky Street). Wooden elements made in this style, characterized with geometrical ornaments with small diamonds and rustication. Sometimes wooden elements seem stylistically 'strange', not consistent with the image of the façade in Historicism style. Most often, it concerns verandas (19 Zelena Street) and the wooden bay windows on the upper floors (2 Stepanivny Street). Such inorganic combination of wooden and stone facade parts occurs mainly at the beginning of this wooden fashion, namely in 1880-s.

Due to astonishingly diversity of designs and materials, **roofs** play a particular part in facade polychromy of the second half of the nineteenth century. Popular since medieval period shingle remained important roofing material in L'viv, which provided a delicate palette of gray and ochre shades on the roofs. In 1870 the St. Anthony church, Sacrament church, Armenian cathedral bell tower and the adjacent Archbishop's Palace, most L'viv stone buildings had shingle roofs. Nowadays because of roof ruination of Franciscan church, we can see original shingle coating, which later was covered by slate tiles apparently due to increased funding and for fear of fire (fig. 17, 18). Due to massive deforestation, gradually the price of shingle in 1888 became actually equal to the price of roof ceramic tiles, which were firstly transported from the Czech Republic and Vienna, because poorly developed industry in Galicia was not able to provide quality products. Gradually the shingle was replaced with roof tiles due to the actions of L'viv authorities to remove flammable shingle roofs and activities of Regional Department of support and development of mass production of roof tiles (1888) [17]. However, we meet information about covering roofs with shingles up to 1930s [51]. At the end of 1890s in the picturesque historicism a special attention was given to the picturesque features of rooftops due to the high roofs, towers, introduction of glazing and color, as well as ceramic decorative elements on the roof of the building on 29 Kotlyarevskogo Street (Fig. 19). Perhaps the leading architect of the second half of the nineteenth century Julian Zachariewicz have brought an active use of color glazed ceramic roof tiles in L'viv architecture. In his youth, he took part in the restoration of the famous Cathedral of St. Stephen in Budapest including the covering of its roof with two hundreds of thousands of colourful glazed roof tiles [3, p. 9]. Often large roof planes were covered with monophonic roof tiles or with coloured ornaments with zigzags and diamonds. Towers as indispensable attributes of picturesque style were covered with glazed plain roof tiles ('karpíówka') (Fig. 20). Towers roofs as almost vertical elements are clearly visible and the light shone favourably, stressing on the picturesque coloured coating (23 Lysenko Street, 50 Chuprynky Street. Actually, in advertisements we meet such separation between color glazed round plain roof tiles ('karpíówka') and ordinary tiles ('dachówka'). From advertising we learn about the features of the palette, 'all products were produced in natural color (bright red), as the black color (impregnated with tar) and gray color with steel brilliance (coloured with smoky gases when burning)'. In addition, roof tiles served for covering windowsills, cornices, roofs over entrances, which gave special color expressiveness to the façade, e.g. Ivan Dolynskyi's villa.

Roofing iron sheets, like roof tiles, at first were imported from other cities in Austria-Hungarian Empire, mostly from Silesia. First iron sheets were more expensive from roof tiles, which were used for 80% of houses. The building of the railway link with Krakow (1861) caused the increasing of import of roofing materials to L'viv, including the natural slate and tarpaper. Slate was imported from Czech Republic and for its high price was used for covering only of representative buildings (Potocki's Palace, 1881), which gave a special blue and gray color of roofs. Actually, Adolf Campel [13] sold and installed French, English and Silesian slate tiles. Since 1860-s Asphalt and Ruberoid factory owned by Stanisław Szeliga Łyszkiewicz [54] manufactured square asphalt tiles, which can be coloured, as building manuals of that time say [49]. Often iron sheets were joined with lock seams so they imitated slate sheets, which, of course, were much more expensive (21 Shevchenka Av.). Actually so-called 'moulding iron roof tiles' were manufactured from iron, mention of which we meet since 1843 [13]. In this way, towers usually were

decorated, including the Sacrament church (Fig. 21, 22). If in the 17th century roofing iron was painted in red, then in the late nineteenth century gray painting imitating natural slate color was spread.



Fig. 15. Wooden veranda of the villa on Yaroslavenka Street (destroyed now). Source: photo by Sergii Lieonov



Fig. 16. Wooden brackets and cornice in combination with brick ornamental masonry of the building on 91 Bandery Street. Source: photo by Sergii Lieonov



Fig. 17. The fragment of shingle coating of the roof of Franciscan church covered later with slate tiles. Source: photo by Sergii Lieonov



Fig. 18. Slate tiles on the roof of Franciscan church in combination with ochre brick walls. Source: photo by Sergii Lieonov



Fig. 19. Ceramic decorative elements on the roof of the building on 29 Kotlyarevskogo Street. Source: photo by Tetiana Kazantseva



Fig. 20. Glazed plain roof tiles ('karpíówka') on Lviv towers (6 Samchuka Street, 50 Chuprynki Street). Source: photo by Sergii Lieonov

Despite this diversity of techniques and materials, we can note that polychromy in the architecture of L`viv Historicism more actively have been developed in the interior. The interiors of public and sacred buildings in various historical styles demonstrated an outstanding polychrome diversity of techniques and materials according to their historical analogies: parquetry, ceiling and walls paintings, marble and wood wall coating, stained glass, wallpapers, brass and bronze details, Terrazzo, ceramic floor tiles, linoleum and more. This polychrome richness, especially in dwelling houses interiors [24], and its manufacturers require special consideration in the following publications by authors.



Fig. 21. Covering of the roof with so-called 'moulding iron roof tiles'. The tower of the building on Soborna Square. Photo by Sergii Lieonov



Fig. 22. The fragment of the Covering of the roof of Sacrament church with so-called 'moulding iron roof tiles'. Source: photo by Sergii Lieonov

3. CONCLUSIONS

Polychromy of facades of L`viv buildings of the second half of the nineteenth century are worth of thorough research, systematization and classification because of a considerable number of preserved objects and sufficient material for historical and bibliographic search. Polychromy was one of the most important means of artistic expression of the period, especially after 1885, when the new building legislation had no restrictions in polychromy use. So polychrome techniques (advertising, decorative paintings and painting according to the architectural concept) and polychrome materials (decorative brick masonry, majolica, wooden details, roof ceramic and slate tiles, shingles, and painted roofing iron) were used. We can name L`viv architects of the second half of the 19th century, creative manner of which characterized with the use of polychrome facades. These are Julian Zachariewicz, Ivan Lewynskyi, Edgar Kováts, Kazimierz Mokłowski, Michał Kowalczyk, Ivan Dolynskyi, Jan and Karol Schulz, Teodor Talowski, Napoleon Łuszczkiewicz, Franciszek Skowron, Jakób Rysiak and Karel Boublík. Authors determined that Carl Kronsteiner`s Viennese factory (1886) was the only manufacturer and supplier of facade paints in L`viv, which provided 40 color shades for decorative facade painting and advertising. The mosaics were produced by Austrian companies 'Franz Mayer Königliche Bayerische Hofkunstanstalt für Glasmalerei' and 'Tiroler Glasmalerei und Mozaik Anstalt', thus they were not wide spread so as majolica elements, which were produced by the local brick factories (Ivan Lewynskyi, Berl Neuwohner, 'Stillerówka', 'Krasuczyn', 'J. Rzędowski', 'Reiss', 'Bracia Mund', 'Glinśko' etc). Also coloured façade bricks and roof tiles were manufactured there which provided their use during all the period. At the same time, a huge number of ceramic products were exported from the Czech Republic, Austria, Romania and Germany at low prices, which provided a large number of varieties of products. The local factory of 'Braci Wczelak' manufactured wooden constructive and decorative elements, ensuring their use during all the period. Overall, the polychromy

of building materials was more widespread on the facades of L`viv buildings of the second half of the nineteenth century unlike the polychromy of techniques that were developed in the interiors and requires a separate detailed study.

BIBLIOGRAPHY

- [1] Architekt, 1907, sierpień.
- [2] Biryulov Yu, *L`viv: city guide (L`viv : turystychnyy putivnyk)*, L`viv, Centre of Europe, 1999.
- [3] Biryulov Yu, *Zakharevych: Creators of the capital city (Zakharevychi: Tvortsi stolychnoho L`vova)*, L`viv, Tsentr Yevropy, 2010.
- [4] Borodin K, Honak I, *Lvov po polsku. Star quality: guide (L`viv po polsku. Znak yakosti: putivnyk)*, L`viv-Drohobych, Kolo, 2015.
- [5] Delcampe Luxembourg SA, <http://www.delcampe.net/page/item/id,319201016,var,Ukraine-Lwow-Lemberg-non-mailed-old-postcard-City-theatre-animated,language,D.html>, access 2017-08-01.
- [6] Dziennik Polski, 1886, nr. 168.
- [7] Etoetro.ru, http://www.etoetro.ru/pic89855.htm?sort_field=image_date&sort=DESC, access 2017-08-01.
- [8] Galicia Sejm (1900-10), Fotopolska, <http://fotopolska.eu/501780,foto.html?o=b122694>, access 2017-08-01.
- [9] Gazeta Lwowska 1887, 58
- [10] Gazeta Lwowska, 1873, nr. 155
- [11] Gazeta Lwowska, 1885, nr. 54.
- [12] Gazeta Lwowska, 1893, nr. 125.
- [13] Gazeta Lwowska, 1897, nr. 128
- [14] Gazeta Lwowska, 1898, nr. 131.
- [15] Gazeta Lwowska, 1903, nr. 118.
- [16] Gazeta Narodowa, 1900, nr. 110.
- [17] Grankin P, *History of L`viv roof XV-XIX centuries (Z istoriyi l`vivs`kykh dakhiv XV-XIX st.), Building in another way*, 1999, nr. 3-4, 38-39.
- [18] Grankin P. *Mosaic decoration of sacred buildings of L`viv (the second half of the XIX - first half of the XX century) (Mozaiky v ozdoblenni sakral`nykh sporud L`vova (druha pol. XIX - persha pol. XX st.))*, in: *History of religions in Ukraine (Istoriya relihiy v Ukraini): Materials of XIV International Conference*, 2004, 194-208.
- [19] Kalendarz Ilustrowany 'Słowa Polskiego' na Rok 1906.
- [20] *Katalog Powszechnej Wystawy Krajowej we Lwowie w roku 1894 pod protektoratem najmiłocześniejszego cesarza i króla Franciszka Józefa I.*, Wyd. 2., Lwów, Z drukarni i litografii Pillera i Spółki, 1894.
- [21] Kazantseva T, Bilinska O, Searching of the polychromy in a historical city. Ukrainian experience. Proceedings of the 19th International Conference and Assembly 'Heritage for Planet Earth 2017 – Smart Travel, Smart Architecture and Heritage Conservation and its Enjoyment for Dialogue', Florence (Italy), 11-12 March, 2017, 56, https://issuu.com/istitutointernazionalelbt/docs/2017_ga_abstract_book, access 2017-08-01.
- [22] Kazantseva T, *Evolution of the Polychromy in L`viv Architecture in the period of the second half of the 17th century to the first half of the 19th century (Ewolucja polichromii w architekturze Lwowa od drugiej połowy 17 wieku do pierwszej połowy 19 wieku)*, *Technical Transactions / Czasopismo Techniczne (Architecture and Urban Planning)*, 2017, Politechnika Krakowska, 5-23. DOI 10.4467/2353737XCT.17.001.6098 <http://www.ejournals.eu/autorzy/9999998423/Tetiana-Kazantseva/>, access 2017.08.01.
- [23] Kazantseva T, *Evolution of the Polychromy in L`viv Architecture of the 14th – the first half of the 17th century (Ewolucja polichromii w architekturze Lwowa w okresie od XIV wieku do pierwszej połowy XVII wieku)*, *Space & Form / Przestrzeń i Forma*, 2015, nr. 24(2), Instytut Architektury i Planowania Przestrzennego Zachodniopomorskiego Uniwersytetu Technologicznego, 39-50, http://www.pif.zut.edu.pl/images/pdf/pif-24-2_pdf/B-02_PIF24-2_Kazantseva.pdf, access 2017.08.01.

- [24] Kazantseva T, Lieonov S, 28 Chekhova Street – the Dwelling House, in: Center for Urban History of East Central Europe, L`viv Interactive, <http://www.L`vivcenter.org/uk/lia/objects/chekhova-28/>, access 2017.08.01.
- [25] Kazantseva T, Lieonov S, Secrets of L`viv Polychromy, Proceedings of the *19th International Conference and Assembly 'Heritage for Planet Earth 2017 – Smart Travel, Smart Architecture and Heritage Conservation and its Enjoyment for Dialogue'*, Florence (Italy), 11-12 March, 2017, 56-57, https://issuu.com/istitutointernazionalelbt/docs/2017_ga_abstract_book, access 2017-08-01.
- [26] Kazantseva T, *Majolica facades of buildings in L`viv style 'pittoresk'. Typological and compositional analysis of field studies*, *Studies of art*, 2009, nr. 1, 51-66. <http://dspace.nbuv.gov.ua/bitstream/handle/123456789/27587/04Kazantseva.pdf?sequence=1>, access 2017.08.01.
- [27] Kazantseva T. *Brick facade decoration of L`viv stone buildings of the late nineteenth - early twentieth century (Tsehlyane dekoruvannya fasadiv l'vivs'kykh kam"yanyts' druhoyi pol. XIX – poch. XX st.)*, *Bulletin 'Ukrzakhidproektrestavratsiya' (Visnyk 'Ukrzakhidproektrestavratsiya')*, 2005, 15, 128-133.
- [28] Kazantseva T., *Evolution of the Polychromy in L`viv Architecture of the second half of the 19th century (Ewolucja polichromii w architekturze Lwowa w drugiej połowie XIX wieku)*, *Space & Form / Przestrzeń i Forma*, 2016, nr. 27, Wyd. Instytut Architektury i Planowania Przestrzennego Zachodniopomorskiego Uniwersytetu Technologicznego, 227-244. DOI: 10.21005/pif.2016.27.E-02
- [29] Kováts E, *Sposób zakopiański - Manière de Zakopane - Die Art Zakopane (The Way of Zakopane)*, Wien-Lwów, 1899, in: Biryulov Yu, 2005 *L`viv Art Nouveau*, L`viv, Center of Europe, 2005, 30-31.
- [30] Kowalska A, L`viv's Ghost Signs, in: *Shadows of a Forgotten World* <http://shadowsofafortottenworld.blogspot.com/2012/06/L`vivs-ghost-signs.html>, access 2017.08.01.
- [31] Kronsteiner, C. Catalogue (coding by Koraljka Vlajo). *Facade-Farben Carl Kronsteiner*, Wien, brošura, in: Museum of Arts and Crafts, Zagreb, <http://athena.muo.hr/?object=view&id=50595>, access 2017.08.01.
- [32] Księga Adresowa Król. Stoł. Miasta Lwowa, 1900
- [33] Księga adresowa Król. Stoł. miasta Lwowa, Rocznik i Lwów, 1897
- [34] Lewicki J, *Between tradition and modernity. L`viv Architecture of 1893-1918 (Między tradycją a nowoczesnością. Architektura Lwowa lat 1893-1918)*, Warszawa, Neriton, 2005, ISBN 83-88372-29-7.
- [35] Lieonov S, Alojzy Hübner (?-1906), https://www.facebook.com/seleonov/media_set?set=a.10212838723385130.1073742068.1300307980&type=3, access 2017.08.01.
- [36] Lieonov S, Bracia Mund, https://www.facebook.com/seleonov/media_set?set=a.10208831612129853.1073741984.1300307980&type=3, access 2017.08.01.
- [37] Lieonov S, Brick factories and apartments of Reiss family, https://www.facebook.com/seleonov/media_set?set=a.10211781870364465.1073742046.1300307980&type=3, access 2017.08.01.
- [38] Lieonov S, Cegielnie, https://www.facebook.com/seleonov/media_set?set=a.10211830311095453.1073742049.1300307980&type=3, access 2017.08.01.
- [39] Lieonov S, Fabryka farb fasadowych Karola Kronsteinera (Wieden), https://www.facebook.com/seleonov/media_set?set=a.10213395871153476.1073742074.1300307980&type=3, access 2017-08-01.
- [40] Lieonov S, Henryk Blumenfeld (Zólkiewska 4), https://www.facebook.com/seleonov/media_set?set=a.10213656716034435.1073742083.1300307980&type=3, access 2017.08.01.
- [41] Lieonov S, Kazantseva T, 34 Lemyka Street – the Dwelling House, in: Center for Urban History of East Central Europe, L`viv Interactive, <http://www.L`vivcenter.org/uk/lia/objects/lemyka-34/>, access 2017.08.01.
- [42] Lieonov S, Lwów. Malarze szyldów (1897-1935), https://www.facebook.com/seleonov/media_set?set=a.10210279142677212.1073742000.1300307980&type=3, access 2017.08.01.
- [43] Lieonov S, Stillerówka (1867, st. Snopkivska 1), https://www.facebook.com/seleonov/media_set?set=a.10211806147131369.1073742048.1300307980&type=3, access 2017.08.01.
- [44] Lieonov S, Wolf Czopp (Zólkiewska 2), https://www.facebook.com/seleonov/media_set?set=a.10213606290853837.1073742082.1300307980&type=3&pnref=story, access 2017.08.01.

- [45] Mayorchuk M, Prisyazhnyi K, *L'viv National Ivan Franko University - a monument of architecture of the nineteenth century. Working drawings of painting. Survey facades to identify colors (L'vivskyy derzhavnyy universytet imeni Ivana Franka – pam'yatka arkhitektury XIX st. Robochi kreslennya pofarbuwannya. Obstezhennya fasadiv na vyyavlennya kol'oru)*, in: Archive Ukrainian Regional Specialized Scientific and Restoration Institute 'Ukrzakhidproektrestavratsiya', 1984, L-9-13 V.
- [46] Mokłowski K, *Sztuka ludowa w Polsce*, Lwów, 1903, in: Biryulov Yu, *L'viv Art Nouveau*, L'viv: Center of Europe, 2005, 30-31.
- [47] *Monuments of architecture of XVI-XIX centuries. Houses on 11-21 Market Square in the city of L'viv. Technological façade research. Technological schemes of research (Pam'yatky arkhitektury XVI-XIX st. Budyanky № 11-21 na pl. Rynok u m. L'vovi. Tekhnolohichne doslidzhennya fasadiv. Tekhnolohichni skhemy restavratsii)*, in: Archive Ukrainian Regional Specialized Scientific and Restoration Institute 'Ukrzakhidproektrestavratsiya', L-296-2, 1996.
- [48] Prisyazhnyi K, Mayorchuk M, *Architectural monument of XV-XVIII centuries - Rynok Square in the city of L'viv (Pam'yatka arkhitektury XV-XVIII st. pl. Rynok u m. L'vovi)*, in: Archive Ukrainian Regional Specialized Scientific and Restoration Institute 'Ukrzakhidproektrestavratsiya', 1983.
- [49] Rovald P., Faulvasser I, Schwartz T, Schulz G, Ebe H, *History and Modern Art Technics. Construction Industry and technology. Encyclopedia of industrial knowledge in 10 volumes (Istoriyya i sovremennaya tekhnika stroytel'noho yskusstva. Promyshlennost' i tekhnika. Ęntsyklopedyya promyshlennykh znanyy v 10 tomakh)*, I-XVI, 1901, 421.
- [50] *Słowo Polskie* (wydanie poranne), Lwów, Waclaw Wolski, 1903, 546.
- [51] *Słowo Polskie*. 1931, nr. 27
- [52] Sobolyevskiy E, Shpolyanskiy O, *Architectural monument of the nineteenth century - former "Casino" on 6 Mitskiewicza Street. Generalization of research materials to identify the original facade polychrome (Pam'yatka arkhitektury XIX st. – kol. «Kazino» - budy'nok vcheny'x u m. L'vovi na vul. Miczkevy'cha, 6. Uzagal'nennya materialiv doslidzhen' na vy'yavlennya pervisnoyi polixromiyi fasadu)*, in: Archive of Ukrainian Regional Specialized Scientific and Restoration Institute 'Ukrzakhidproektrestavratsiya', L-20-72, 1987.
- [53] Sobolyevskiy E, Shpolyanskiy O, *Monument of architecture – the dwelling house on 8 Matejka Street in L'viv. Chemical technological analysis of facades (Pam'yatnyk arkhitektury - zhytlovyvy budy'nok na 8 Matejka vulytsi u L'vovi. Khimichnyy tekhnolohichnyy analiz fasadiv)*, in: Archive of Ukrainian Regional Specialized Scientific and Restoration Institute 'Ukrzakhidproektrestavratsiya', L-31-3, 1987.
- [54] Szeliga-Łyszkievicz S, *O pokryciach dachowych w praktyce przez. inżyniera we Lwowie*, Lwów, Nakładem Lwowskiej Fabryki Asfaltu i Ulepszonych Ogniotrwałych Tektur do Krycia Dachów, 1892, 44.
- [55] *The case for permission to I. Levynskiy about doing carpentry work / Sprava pro nadannya dozvolu I. Levyns'komu pro vedennya stolyarnykh robıt* (Central State Historical Archive Ukraine, 2/2/2571-2573), in: Noha O, *I. Lewynskiy - architect, entrepreneur, philanthropist*, L'viv, Center of Europe, 2009.

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