

The specifics of lighting of restoration objects (on the example of stave and stone church structures)

Abstract

The article deals with the specifics of lighting of stave churches of Ukraine and stone temples, erected or rebuilt during the 19th century. It explains how the approach to the lighting of Orthodox churches changed during the Synodical period. The Ukrainian experience of solving the issue of lighting of restoration and reconstruction objects was described. The specifics of lighting the interiors of church structures is illustrated by the examples of the Dormition Cathedral of the Kyiv Pechersk Lavra and the Saint Vladimir Cathedral in Chersonese. The specifics of lighting of restoration objects is based on the need to combine the conformity to the authentic view of light fittings (according the photos from the archive) and modern lighting technologies, so in many cases light fittings are manufactured in the limited quantity under the author's drawings.

Keywords: lighting issues, restoration objects, stave and stone churches and cathedrals, authentic

1. Introduction

It is a well-known fact that every significant historical era is distinguished by the specific architectural forms, a stable system of functional, spatial, aesthetic characteristics which are generalized by the notion of the era style. The era style is a notion that, beside architecture, covers a wide range of ethical, aesthetic, artistic forms and reflects the level of the society material and spiritual culture.

The history of architecture is the history of consistent changes of stylistics – the whole set of means of expression of architectural forms, objectively comprising semantic features, signs of architectural and artistic image. Just due to these properties architecture it is nearly the most reliable source of objective information about the history of civilization and culture.

The architecture of the Secession of the late 19th – early 20th centuries attracts the attention of various scientific specialists not just by chance. Just the very style of the Secession became the sign of the era, nearly the highest rise of economy and culture, the architectural and town-planning activity of the time of formation of developed capitalism with its ambitions, material and technical and financial capabilities which stimulated investment processes in construction, favoured the development of art, in particular, decorative, monumental, applied, arts related to the formation of the objective-spatial environment of human life activities.

It has been frequently said that the Secession was the last style with the highly expressed artist's individuality. Manifestations of the style uniqueness and originality are traced at different levels, which explains the fact why the professionals are so much interested in this style.

The issues of the Secession research are reduced to the following by different Ukrainian and foreign scientists:

– cultural, aesthetic, artistic problems of the European Secession, its unique phenomenon were studied by F. Shmalenbah, R. Shmuzler, M. Reims, M. Pevzner, V. Hoffman, G.Yu. Sternin, A. Borisova, V.G. Lisowski, V.S. Goriunov, M.P. Tubli;

– causes of emergence, specifics of manifestation, style originality, periodization, compositional principles of the Secession, its innovation, communication between the Secession centres in different countries, Art Nouveau elements were studied by G.Yu. Sternin, E. A. Borisova, J. V. Ivashko, E. I. Kyrychenko, D. V. Sarabianov, V. G. Lisovsky, V. V. Kyrylov, M. V. Nashchokina, A. A. Berseneva, O. V. Orelska, S. Grosa, S. S. Levoshko, O. B. Ushakova, G. A. Parkhomenko;

– analysis of the impact of external factors and interstyle processes, the connection of the Secession with other styles are represented by the works of G. Yu. Sternin, E. A. Borisova, J. V. Ivashko, V.G. Lisovsky, V.S. Goriunov, M. P. Tubli, O. V. Orelska, G. A. Parkhomenko;

– historical descriptions of the Secession objects, biographies of architects were studied by J. V. Ivashko, V.G. Lisovsky, B. M. Kirykov, S. S. Levoshko, O. B. Ushakova, M. V. Nashchokina,

D. V. Malakov, O. G. Mokrousova, O. M. Drug, O. P. Serdiuk, G. S. Dukhovichny, T. V. Skibitska;

– studying and popularization of the Secession specific features in Ukraine (Ukrainian Art Nouveau) were performed by D. P. Galagan, L. M. Zhemchuzhikov, O. G. Slaktion, G. K. Lukomsky, V. G. Krichevsky, K. V. Sherotsky, H. P. Serdiuk, K. M. Zhukov, D. M. Diachenko, M. G. Filiansky, S. P. Timoshenko, I. I. Trush, V. K. Trotsenko, D. V. Antonovych, I. I. Levin-sky, V. E. Iasievich, V. V. Chepelik, G. S. Dukhovichny, T. V. Skibitska, V. V. Vechersky, V. F. Otchenashko;

– modern studies of the regional specificity of the Secession of Ukraine are highlighted in the scientific works of Iu. S. Biriulov, J. V. Ivashko, V. V. Kodin, S. V. Bilenkova, L. K. Polischuk, M. M. Stakian.

The causes of the Secession emergence in Ukraine on the background of the historical situation in Ukraine of the late 19th – early 20th centuries and impact of the external factors were highlighted by V. E. Iasievich, J. V. Ivashko, H. P. Serdiuk, G. S. Duhovichny, T. V. Skibitska, Iu. S. Biriulov, S. V. Bilenkova, L. K. Polischuk and M.M. Stakian. Specificity of the Secession as a style, features of this style manifestation in Ukraine as a whole and within individual centres, the Secession types with the description of typical objects were studied by V. E. Iasievich, Iu. S. Biriulov, H. P. Serdiuk, T. V. Skibitska, S. V. Bilenkova, L. K. Polischuk, M. M. Stakian. V. E. Iasievich revealed the Secession periodization – two periods, early and late – and related them to schools in the certain cities. The Secession centres in Ukraine were studied by V. E. Iasievich, Iu. S. Biriulov, S. V. Bilenkova, L. K. Polischuk, T. V. Skibitska, H. P. Serdiuk, M. M. Stakian, who classified the Secession centres by location in the cities, determined the specifics of the Art Nouveau centres within a single city. V. V. Chepelik was the first researcher to introduce the term “Ukrainian Art Nouveau”, as the name of the main kind of the national-romantic modernist style in Ukraine, and highlighted its specific features in detail.

2. Origins and specificity of the formation of Western European Secession and its manifestations in lighting devices

The Secession symbolism in the countries of Western Europe and the Russian has much in common: first of all, it is the opposition of rational and irrational, sublime and earthly, beautiful and ominous, life and death, which can be clearly seen in poetry, philosophy, art, and architecture [1, 2, 3]. The principal motto of this Secession became turning the useful into the beautiful. At its early stage, the Secession was characterized by highlighted decorativeness, which was especially expressed in the design of interior items, in particular, in lighting devices, which acquired the unique features of the works of art. Later, the style supporters started defending the form-creating value of design and material, and the functional and constructive basis of buildings started acquiring the style-forming sense.

The nature becomes the source of development of the interior objects in the Secession, which leads to the emergence of mushroom-shaped stained glass lamps and chimerical

flower-shaped lamps and lamps woven into sculptural water lilies. There are several explanations for this: first, the Secession artists adhered to the principle of avoiding using the architectural heritage of past centuries; second, the very romantic, idyllic nature of Art Nouveau was encouraging this; thirdly, natural sciences developed just in the late 19th – early 20th centuries evolved

Many scientific sources (in particular, in scientific works of K. Frempton, H. Fudzioki, M. Speidel) contain the issue of a special role of the Eastern, first of all, Japanese culture in the establishment of the European Secession (“Art Nouveau”) as an architecture and art style [10, 11, 13]. According to D. V. Sarabianov dialogue with the East, initiated by romanticism, continued by impressionists in painting and especially developed during the Secession period, was especially important for the Secession. Consequently, according to D. V. Sarabianov, the artistic trends that preceded the Secession and, at the same time, the discovery of the Eastern culture formed the historical preconditions of the Secession [7, p. 41]. According to E. I. Kyrychenko, stylization allowed the Secession to address many different sources, including the Japanese art, not losing the integrity of style at the same time. She sees the influence of Japanese culture, discovered by the Europeans in the late 19th century, in flexible lines of shapes and the Art Nouveau decor (which is seen also in flexible lines of the Secession lamps, each of them being unique) [4, c. 215]. The ideological and artistic program of Japanese art impressed the Secession as well. Europeans saw the basic importance of Japanese art for Europe and the art and architecture of the Secession in the Japanese art was based on the unity with nature. According to M. Voloshin, acquaintance with Japanese art developed in European artists the aspiration for schematics and generalization without following the established rules and dogmas [4, c. 217]. Oriental (in particular, Japanese) art quickly spread in the USA and Europe in the 1850s under the influence of the certain political events, social and spiritual circumstances.

M. V. Nashchokina also drew attention to the presence of Orientalism in the Secession; she noted that the beginning of interest in Oriental art began from de Goncourt brothers. She emphasized that in many ways Orientalism favoured the development of the Secession aesthetics through borrowing the figurative language elements of oriental

painting and applied and decorative arts, was asserting the refined aesthetics of asymmetry, important for Art Nouveau which resisted centuries of prevalence of classical regularity [5, p. 202–203].

Japanese culture influenced the European Secession in several directions [6, 11]. First of all, the Secession artists borrowed the tradition of poetizing nature in all its manifestations from the Japanese artists and poets. The usual lamp turns into flowers, on chimerically woven stems (as in the building of Kachkovsky Clinic at 33 Gonchara Street in Kyiv, designed by Polish architect Ignatii Ledochovsky) (ill.1), lighting lamps can grow out of water lilies and tails of giant fishes (as in the famous “House with Chimaeras” by Polish architect Vladislav Gorodetsky Bankova Street 10 in Kyiv).

A significant contribution to promote Japanese art, which had a special influence on interior design, including lighting, was made by a collector and a businessman Samuel Bing, who opened two stores in Paris, and in 1900, presented his “Art Nouveau” pavilion at the World Exhibition in Paris.

Partly from the wildlife, partly from Japanese engravings and hieroglyphs, a line typical for the Secession, a ‘whiplash’, was borrowed, which became widespread in the patterns of lighting devices [6]. Later in their works, the Secession artists addressed the natural origins as symbols of a harmonious, perfect environment, although they were against the literal citation of natural forms. However, the Secession architectural forms were able to form indirect association with natural forms: natural motifs are well-seen in Art Nouveau stained glass, in silhouettes in the interior items, in lamps, in wrought iron grates. In Art Nouveau, the border between artificial and natural environment has gradually disappeared, because the artificial environment acquired the features of “naturalness”. In the Secession, a special place is occupied not by some real image but a characteristic symbol as a point of intersection of human inner world and the outside world, which was typical for Japanese art. For the Secession artist, the object – even if it is a common stairwell lamp – is often perceived not as a real world image and implementation, but as an immersion into the world of nature or unreal mysticism. That is why, the common Secession becomes a phenomenon similar to the Japanese principle of “wabi-sabi” – poetic sorrow, loneliness, philosophical reflection in solitude when a beautiful thoughtful girl is holding a flower lamp and looking somewhere into the distance (as embodied by the architect J. Zekker in the front lobby of Boruch Moroz profitable home at 61/11 Volodymyrska St. in Kyiv).

The ‘Dialogue with the East’, which lasted during the process of familiarization of the European artists, architects, collectors with the Eastern art, influenced the formation of European Art Nouveau [12]. A well-known Art Nouveau researcher, D. V. Sarabianov, emphasized that the influence of Japanese art was felt at the beginning of the Secession style formation which led to the influence of the East, that is to say, from “inside the style”, in all its manifestations, undergoing transformation in accordance with the European world perception [7]. There were several prerequisites for the Secession development in Ukraine, and they differed depending on the ad-



Ill. 1. The lamps of the Kachkovsky Clinic stairwell. The photo by J. Ivashko, 1998

ministrative and territorial specifics. The processes that took place in Austria-Hungary and Russia also influenced the emergence and spread of the Secession in Ukraine, with the only difference that the role of Lviv, Kyiv, Kharkiv and Odessa was much smaller than the role of Vienna, Prague, Budapest, Moscow, and St. Petersburg. The Secession arose on the territory of modern Ukraine in 1896–1898 years, even several years earlier, within the

Ill. 2. The shell lamp in the entrance hall of the House with Chimaeras. The archive photo of the early 20th century from the personal archive of J. V. Ivashko



western centres, which at that time belonged administratively to the Austrian-Hungarian Empire. Around 1908–1910, the new style popularity in all the Art Nouveau centres, except for the western ones, began to decrease. In the same way as in the European countries, the development of Secession in Ukraine took place on the background of rapid economic development, the activity of the new social class, the bourgeoisie, and was connected with the implementation of a large number of technical inventions.

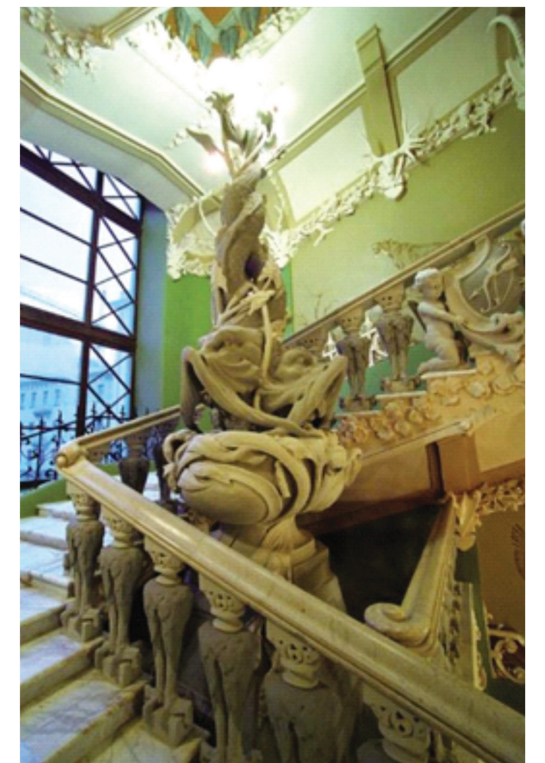
In scientific sources, it is possible to find rather detailed information on lighting devices of Art Nouveau age, examples of original Art Nouveau lamps in Kyiv are much less known – mostly due to the fact that in the most cities of modern Eastern Ukraine, Art Nouveau was expressed primarily as a facade style, and furniture components remained typical. That is why the original lamps in Kyiv buildings should be especially highlighted. There are several such objects. For example, the famous Polish architect Vladislav Gorodetsky, even having deviated from the Secession canons in the House of Chimaeras, however, kept the basic principle of the idea put forward by the apologist Henry Van de Velda; it was the idea of “Gesamtkunstwerk” – the total space of art, when the decoration of walls and ceilings, furnishings and even the inhabitants’ clothes are merged into one unit (ill. 2). In the House of Chimaeras, like in a house owned by A. Van de Velde in Ukkle, picturesque panels on the walls and ceiling combine with sculptures and bas-reliefs dedicated to animal underwater and terrestrial worlds and hunting attributes. Round in the plan, the hall is covered with the vaulted ceiling, divided into eight faces, along which a giant octopus spread its tentacles, and in the centre a large lamp in the shape of a shell is mounted (ill. 2). Four-storied parade staircases are illuminated with a large window from the side, and the centre of the staircase is a sculptural composition of two huge, swirling fishtails overtaken by water-lilies (ill. 3).

In the past, water lilies had white matte fixtures mounted into them in the form of bullets with electric lamps. Kyiv residents know less about the interior of the former Kachkovsky Clinic on Gonchara Street, 33 with a flower lamp in the form of three intertwined plants and curved staircases of the front lobby.

According to the general style of the premises, in 2001 the specialists of the “UkrNDIproektrestavratsiya” Institute developed the lighting devices of Rodzianko residential building at Yaroslaviv Val St., 14–b with modification of the homeowner’s apartment premises to be used as a chamber theatre “Susyriya” (ill. 4, 5).

3. The experience of restoration of lighting devices of modern items

The issue of the correlation of the required lighting and the object authenticity is especially important for the objects of restoration, many of which were illuminated in accordance with that time requirements. We should consider solving the issues of lighting on the example of the famous “House with Chimaeras”, modified to be used as the residence of the Pre-



Ill. 3. The lamp with fishes in the House with Chimaeras. The photo from the funds of “Ukrrestavratsiya” corporation



Ill. 4. The glass globe of the ‘English office’ of the former Rodzianka flat. The drawing from the funds of “Ukrrestavratsiya” corporation

sident of Ukraine. Since in the Soviet times, the government polyclinic was located in the house, typical standard Soviet lighting devices were installed everywhere and no original lamp from the time of V. Gorodetsky was preserved. Therefore, during the restoration and recovery work with the new building adaptation, our specialists had to study the enormous number of archival sources and perform the research of the original lighting system to provide the authentic look of the



Ill. 5. General view of the 'English office' after the restoration. The photo from the personal archive of J. V. Ivashko

restored premises. In total, according to individual drawings, 66 chandeliers and lamp-brackets (15 chandeliers of ten types, 51 lamp-brackets of seven types) were made, besides 95 chandeliers and lamp-brackets (23 chandeliers of seventeen types, 72 lamp-brackets of thirteen types) were manufactured (ill. 6). Consequently, we can state that the lighting system of the building taking into consideration its uniqueness was exclusive, which determined the variety of types of lighting devices used.

The main solution of the lighting system of the House with Chimaeras was that, during the time of Gorodetsky, all the lamps were designed by the author, and the restorers of the "Ukrrestavratsiya" corporation, had to develop them according to the author's drawings. The authors of the designed devices were famous artists S. Adamenko and M. Ralko. The entire wiring was replaced, and all lighting devices were arranged in those places where they were installed at the time of V. Gorodetsky. The glass globes, identical to the original initial ones in design, were made in Italy from Venetian glass ("Murano") of various shades; other domestic chandeliers were adorned with Czech crystal in combination with bronze and brass. In cases where the archival photographs of the premises interiors were preserved, there was a possibility to manufacture lamps according to their initial appearance, including the use of horns of some particular animal (for Gorodetsky was a hunter), and lamps of minor premises were selected depending on the lamps (chandeliers and lamp-brackets) of the main premises and based on the general style of interiors. Moreover, chandeliers from alabaster RP268A and 268E, Alabastro crema and lamp-brackets from alabaster 268N Alabastro crema were used in the lobby and the rooms of the first and second floors.

The most difficult task for restorers was to modify the former profitable home of V. Gorodetsky to be used as the State residence; for example, in order to hide communication lines on the floor, its level was raised by 40 cm.

The project of electric lighting was developed on the basis of the customer's order, the order of Svetlotechnika Ltd. (when

re the installation sites and lamp power were specified), and drawings of the architectural and construction part of the project. The project provided for the arrangement of working, emergency and operational lighting systems, and the choice of types of individual interior lighting devices. The installation of lighting devices with incandescent lamps (in the main premises of the Residence) and lighting devices with fluorescent lamps (in the auxiliary premises) was provided in the premises of the House with Chimaeras. In order to receive and distribute power, switchboards with automatic and differential switches were mounted. It was assumed that during the power emergency shutdown, the lighting automatically switches to the reserved power supply system, the local lamp control was provided, via switches. The electric lighting system of equipment in special premises was separated from all electrical networks of the building and connected through network filters. Electrical wiring in special premises, as well as supply networks were installed with the use of the screened wires and cables in PVC insulation in the metal sleeve, hidden behind the suspended ceiling or in steel pipes in the floor of the upper floors (to the chandeliers). In the pipes leading to the chandeliers, the backup wire of the same section was laid.

Separate working drawings of electric lighting of the cellar, basement floor, the first and fifth floors of the "House with Chimaeras" were developed. Two spiral lamps with argon filler 60, 100, 150-1 and 40, luminescent mercury low pressure lamps LB20, LB40 were used. In the former Gorodetsky's dining room, elk horns, brass and bronze, reproduced according to the archival photographs, according to the authentic appearance of interiors, were used in the chandelier L5; elk horns were also used for lamp-brackets of B5 type (5 lamp-brackets). Elk horns were also used in the chandelier L6 and 6 lamp-brackets of B6.

In the room with paintings on the ceiling, dedicated to hunting, two chandeliers of type L8 with mouflon horns and lamp-brackets of B8 (6 pieces), B17 (6 pieces) and B18 (6 pieces) types with mouflon horns were installed.

The project provided for the backlight of the facades, the electrical wiring performed by a cable openly on the wall. The control of external lighting of the facades was provided with the help of photocells located on the building facade (the lighting program was installed in a separate cabinet). Protective grounding was performed by connecting to the



Ill. 6. Comparison of initial appearance of lamps on archive photos and restored lamps (from the funds of "Ukrrestavratsiya" corporation)

power network zero wire. During solving the system of illumination of the house facades, the task was to reveal and emphasize maximally the unique architectural plastic of all facades and the individuality of the style of "House with Chimaeras". A project of architectural external lighting was developed, which provided for the arrangement of the backlight on the windowsills and on separate pillars located around the house perimeter, where powerful searchlights are installed.

4. General conclusions

Lighting plays an important role in the perception of the architectural object and adds to its attractiveness for tourists to the large extent. This fact is successfully used to illuminate the unique objects of Krakow, Vienna, Budapest, and Prague. The complexity of the restoration of the Secession objects is in the fact that restorers have a task to achieve maximal authenticity, including the smallest details, and Secession is just characterized by the increased plasticity and complex detailing. Just in Secession that individual design of interior elements, especially lighting devices, becomes very significant, which is clearly seen from the examples of the objects restored by the specialists of "Ukrrestavratsiya" corporation [6].

The European Secession left a noticeable track in the world culture, in the first turn, due to the fact that it transformed every element into a work of art. In distinction from the previous historicism–eclecticism and the following functionalism–avant-garde trends, that actively used numerous elements of furnishings, the Secession praised the individual details, each of them was considered as an integral part of the continuous art space where all the components are equally important – a building in general, a lamp, a door handle, and the inhabitants' clothes.

Such a refined and artistic attitude to the elements of furniture and the air of individuality had a special impact on the design of lighting devices that were turned in the work of art. The Ukrainian Secession covers fewer examples of the ori-

ginal lighting devices in comparison with the European countries, but the examples shown are considered the best examples of the interiors of Kyiv, Lviv, Kharkiv and Vinnitsa. Such prominent objects in Kyiv include "The House with Chimaeras" by the architect Vladislav Gorodetsky, and all the objects by Ignatii Ledohovsky, that is why the task of restoration of these buildings was assigned to the professionals, and all work was performed in accordance with the international restoration principles.

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