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THE RECONSTRUCTION AND RESTORATION OF THE FORMER JEWISH HOSPITAL IN KROPYVNYTSKYI

Maryna OMELIANENKO[1*], Marek PABICH[2], Paulina SZTABIŃSKA-KALOWSKA[3]

[1] Kyiv National University of Construction and Architecture, 31 Povitrianykh Syl Avenue, Kyiv, 03037, Ukraine
[2] Lodz University of Technology, Institute of Architecture and Urban Planning, 116 Żeromskiego Street, 90-924 Lodz, Poland
[3] University of Lodz, Institute of Art History, 65 Narutowicza Street, Lodz, 90-131, Poland

Abstract

The article analyzes the experience of reconstructing and restoring one of the former buildings of the Jewish hospital in the city of Kropyvnytskyi. This object is an architectural monument, built in 1910–1914 in the eclectic style with elements of modernism, in interiors with motifs of the traditional "Jewish" style. It is significant that, during its existence, the hospital was used for its intended purpose; however, some buildings were rebuilt and lost part of their original decor. As of the beginning of the restoration work, building No. 2 had signs of disrepair. The article highlights the history of the object, its style characteristics, and characteristics of the original structural roofs and materials. The stages and content of the restoration project are described.

Keywords: *Reconstruction; Restoration; Jewish hospital; Kropyvnytskyi*

Introduction

Thorough archival research of the historical hospital was carried out by specialists from the Ukrproektrestavratsiia Institute in 1995 and became the basis for developing a reconstruction and restoration project.

The historical building of the former Jewish hospital is located on the outskirts of the historical development area of the city of Kropyvnytskyi (formerly Yelysavethrad). The main facade of the building is oriented towards the roadway of Preobrazhenska Street but is located at a considerable distance from its red line of street development. The estate plot occupies almost the entire area of the quarter (originally, the estate plot of the Jewish hospital occupied the entire territory of the quarter).

The beginning of the construction of the Jewish hospital dates back to 1910, when its construction began with the charitable contributions of Jews and money from the box collection. An article in the newspaper “Golos Yuga” (“Voice of South”) for October 1, 1910, states, "The laying of the foundation of the hospital. On Sunday, October 3, the laying of the foundation of the new Jewish hospital on Preobrazhenskaya Square will take place."

The construction of the Jewish hospital was completed in 1914. This hospital (which included at least three medical buildings and utility buildings) was built next to the former Skotoprohinna Square, halfway between the central quarters of the city and the Kushchivka

* Corresponding author: mariom@ukr.net

district. No architect was appointed for the project, and the construction was commissioned by the Jewish community.

In terms of style, the building is built in the eclectic style, using elements of the Art Nouveau style in the decoration of the facades, which occupied an honorable place during the period of construction (Fig. 1). The interior decoration uses motifs of the national "Jewish" style.

Fig. 1. The main facade of the medical building No. 2 (state before restoration).

In the 1930s, the Jewish hospital complex was nationalized, but its purpose was not changed.

After World War II, the main building of the former Jewish hospital was adapted and used as a regional oncological dispensary; the other buildings were also used for their intended purpose as hospitals for children and adults. In 1951–1957, a number of construction works were carried out on the buildings of the former Jewish hospital, including reconstruction, re-equipment of utility networks, building of superstructures, and completion of one- and two-story volumes, integrated with the old buildings. In 1972, the complex of buildings, including the two medical buildings of the former Jewish hospital, began to be used exclusively as a regional children's hospital, and the departments for the treatment of adults were transferred to other buildings.

The restoration project was developed for one of the buildings of the former Jewish hospital, medical building No. 2 (Fig. 1), which is used by the regional children's hospital. This building houses the outpatient department on the semi-basement floor, the surgical and traumatology departments on the ground floor, and the ophthalmology and otolaryngology departments on the first floor.

During the field surveys, it was established that during the period of operation, the building underwent changes in the volumetric and spatial solution and in the planning system of the premises. The original overall dimensions of the building in the plan did not change significantly (a small one-story volume of economic purpose), and a superstructure on the first-floor premises was built over the entire volume of the old building.

The facades of the old volume of the building have a high degree of preservation, but most of all, in the 1950s, during the reconstruction, the decorative elements of the crown cornice and the stucco decoration of the pediments were lost (Fig. 2). The original authentic interior decoration was not preserved; the heating stoves, which were located in the rooms of the basement and first floors, were lost, and a room for filling coal was preserved in the basement.

Fig. 2. Main facade of treatment building No. 2. Archival photo from the 1950s

The hospital's treatment building has still retained its significance as an architectural accent on one of the city's central streets. It is an example of a public building, an architectural object of the early 20th century, in which the exterior decoration elements and planning system have been preserved, mostly authentically.

The historical building was registered in 1993 as an architectural monument of local importance as part of the "Former Jewish Hospital Complex," protected area No. 279, approved in the List of Monuments of Urban Planning, Architecture, Landscape and Park Art of National and Local Importance and Discovered Monuments by the Order of the Head of the Kirovohrad Regional State Administration dated December 25, 1997, No. 427-r. As part of the urban planning monument "Former Jewish Hospital Complex," protected area No. 279-Kv, as an architectural monument of local importance "Treatment Building No. 2," protected area No. 279-Kv 1, was approved in the List of monuments of urban planning, architecture, and landscape art in the Kirovohrad region by the order of the head of the regional state administration dated December 28, 2004, No. 792-r as a monument of local importance "Treatment building No. 2" protected No. 279/1-Kv, which is part of the "Complex of buildings of the former Jewish hospital."

By decision of the Kirovohrad Regional Council of June 23, 2006, No. 32, the cultural heritage monument was included in the list of monuments of urban planning, architecture, and landscape art in the Kirovohrad region, which are not subject to alienation (privatization). By decision of the Kirovohrad Regional Council of June 23, 2006, No. 32, the cultural heritage monument was included in the list of monuments of urban planning, architecture, and landscape art in the Kirovohrad region, which are not subject to alienation (privatization).

The city of Kropyvnytskyi in Soviet times was called Kirovohrad; it was the administrative center of the Kirovohrad region, which continues to bear the old name.

The purpose of the study was as follows: to highlight the history of a little-known cultural heritage site, the procedure for its research, stylistic specifics, and the nature of reconstruction and restoration measures.

The objectives of the study were as follows:

– to analyze the historical and architectural value of the site;

– to describe the structural schemes and original materials;

– to analyze the list of proposed restoration measures.

The scientific novelty of the study lies in highlighting the experience of restoring a little-known cultural heritage site in the city of Kropyvnytskyi.

Materials and Methods

The purpose and objectives of the study determined the use of the following research methods:

– the method of historical analysis to highlight the history of the monument and the stages of changes in its development;

– the method of photo fixation – to create an evidence base and develop a restoration project;

– the graphic-and-analytical method – to develop design drawings;

– the analytical method – to analyze the proposed restoration measures.

During the study, the source base was processed in the following areas:

– studies devoted to the problems of preserving the historical environment of the city [1], [2], [3], [4];

– problems of restoration and restoration of architectural monuments [5-13];

– the role of the environment in the perception of architectural style [14];

– the specifics of professional education [1], [2], [4].

Also, a large series of bibliographic references from the scientific literature in the field were used in the preparation of this study, of which we mention only a few representative ones [15], [16], [17]. [18], [19], [20].

Results and discussion

Characteristics and technical condition of the object

The overall dimensions of the building are 77.60 m × 35.75 m, including the central volume arranged parallel to the longitudinal axis of Preobrazhenska Street (13.45 × 77.60 m); the volume of two wings arranged perpendicular to the longitudinal axis of Preobrazhenska Street – 22.30 × 10.10 m with entrance vestibules – 22.30 × 12.7 m; and the central wing – 17.20 × 15.25 m (without utility extension).

According to the structural scheme, the building is rigid with load-bearing longitudinal and transverse walls, and a system of columns is arranged in the central part.

The original construction project of the building has not been preserved. There are no reconstruction and major repair projects. It is known that in 1956–1957, the building was reconstructed; major repairs of the facades and interiors and an extension were carried out; and in 2013–2014, a partial replacement of the roof covering was carried out.

The following stages of pre-project studies were carried out:

– engineering, geological, and hydrogeological studies with conclusions and recommendations;

– field studies, measurements, soundings, pits, experimental plots: measurement drawings – floor plans of premises, facades with detailed measurements of architectural elements of exterior decoration, window and door blocks; pits to determine the depth of foundation laying; soundings and pits to determine the locations of bricked-up windows and light wells of semi-basement premises;

– laboratory studies of building and finishing materials;

– photofixation: detailed photofixation of architectural elements, soundings, and pits (by stages of work).

During the field surveys, the characteristics and condition of the components of the hospital building were determined.

Base soils:

– at a depth of 1 to 2 m, yellow, yellow-brown, fine-grained, medium-density, non-sag sand;

– at a depth of 2 to 3 m, yellow-brown clayey sand, fine-grained, medium-density, non-sag sand;

– at a depth of 3 to 3.5 m, loamy sand, yellow-brown, of firm consistency (according to PrJSC "Institute Kirovohradagroproekt," 2013).

Foundation design.

The foundations are strip, made of rubble (ragged rubble of gray granite on complex masonry mortar), and laid with clay ceramic bricks from the middle of the basement (semi-basement) rooms. The semi-basement and basement rooms are arranged under part of the building; they have separate entrances and exits. The depth of the foundation base is not less than 3.00 m from the ground level, taking into account the heights of the basement premises – 3.16 m and 2.30 m. The width of the foundation base is not less than 850 mm, taking into account the width of the basement walls, 800–850 mm. To determine more specific data on the foundations' dimensions, it is necessary to conduct excavation and measurements.

From the inside of the basement rooms, no defects, cavities, deviations from the vertical, curvature of the rows of masonry walls in the basements, or destruction in the masonry of the foundations were detected.

Perimeter paving, plinth. The building's plinth is made of brick and rubble (Fig. 3).

Fig. 3. Fragment of the plinth.

The base has a variable height, changes relative to the ground level, and has a size from the main facade of 2.21 m to 1.43 m and from the courtyard facades, from 2.21 m to 0.32 m. The plane of the base part from the main facade and side facades of the main volume is faced with hewn, unpolished granite blocks; the courtyard facades are made of brickwork with fragmentary masonry with granite blocks in the corner parts and, so to speak, belts.

The blocks are hewn from gray granite, unpolished, with dimensions in most cases of 60×56×38×25 cm. The masonry of granite blocks and brickwork for jointing originally did not provide for plastering and painting, except for the crown cornice (height 0.21 m), which is made of brickwork from hewn profiled bricks and surrounds all volumes of the building along the perimeter. The plinth belt was originally covered with smooth plaster, which reproduces the profile of the cornice and was painted. There is no evidence that the smooth plastering of the crown cornice of the plinth was carried out along the entire perimeter of the building; currently, the plinth of the main and side facades of the main volume is decorated in this way.

The light wells are located opposite the window openings of the basement floor. The enclosing structures of the wells: the main and side facades are made of brick, and the courtyard facades are made of monolithic concrete, which contradicts the original appearance. In addition, the outer surfaces of the wells, which are arranged from the courtyard facades, have no decoration, which negatively affects the architectural appearance. Covering of the light wells. Over most of the light wells, there are canopies, the supporting structures of which are made of metal elements of various profiles; the covering is metal roofing sheets and multi-wave asbestos-cement sheets. The general appearance of the canopies is unaesthetic and introduces disharmony into the architecture of the building, as it does not correspond to the style of the building. The wells above which there is no covering are constantly wetted by precipitation, which is negative for the building structures and contributes to the deterioration of the technical condition.

The inspection revealed the following: the plane of the base of the main entrance portal is plastered, which does not correspond to the original appearance; the plaster has local areas of peeling and destruction of the plaster layer, with paint washing out; there are cracks with displacement of stones in brick and granite masonry with a length of more than 8 rows of masonry; the lower and corner parts of the base are clogged with moss; the brickwork of the courtyard facades has hairline cracks and cracks with an opening size of up to 3 mm, crossing the masonry to a height of more than 8 rows; there is washing out and weathering of the mortar from the masonry; there are local areas of brick destruction and mechanical damage to the brick; the coating of the masonry planes of the pits has damage to the layer of plaster and ceramic tiles and destruction of the brick; the canopies above the pits have damage from corrosion of metal sheets, cracking of asbestos-cement sheets, and improper fit to the enclosing structures of the building.

The perimeter pavement is asphalt concrete.

Exterior walls. The masonry of the external walls is made of ceramic bricks of plaster, pressed on a complex limestone and cement mortar. The masonry is made under the jointing with a convex roller (Fig. 4). Granite slabs (blocks) were used in the decoration of the main facade. The walls of the original volume are thick: basements – 1050/950 mm; ground floor – 750 or 680 mm; first floor – 630/520 mm. Since the brick was made by pressing by hand, the size of the brick in the old volume is different (27.5×14×7 cm, 26.5×14×6.5 cm, 26×13×6.5 cm, 22×12×6 cm). In the superstructured volume of the first floor, the ceramic brick corresponds to the current standard sizes.

The walls on the outside are painted in the main color, and the architectural details are highlighted in a different color; from the inside, the walls are plastered and painted, decorated with wallpaper, ceramic tiles, and clapboard.

For the architectural decoration of the main facade, elements made of brickwork made of profiled and hewn bricks were used; the decorative details of the pilasters were made of hewn granite, and elements of stucco decoration were used in the decoration of the main facade.

Fig. 4. Fragment of the external walls.

For the architectural decoration of the courtyard facades, brickwork made of profiled and hewn bricks was used. Almost all decorative elements have an authentic appearance.

The inspection revealed oblique hairline cracks and cracks with an opening size of up to 3 mm on the plane of the main facade, which cross more than 8 rows of brickwork, and cracks in brick lintels above window and door openings. Paint washout; cracks with displacement of stones in brick and granite masonry with a length of more than 8 rows of masonry; traces of waterlogging – especially in the corner parts of the building with moss growth and within the crown cornice and the adjacency of the covering of portals and canopies over light wells; washing out and weathering of mortar from the masonry; local places of destruction of bricks; mechanical damage to bricks; the paint is peeling and washing out; cracking and damage to the plaster layer; the crown cornice has vertical and horizontal cracks; there are places of damage to the bricks; metal elements are affected by corrosion; a window opening is bricked up in an unaesthetic way and with a violation of the architectural appearance of the building.

Interior walls. The interior walls are made of ceramic bricks of plastic pressing on a limestone-sand mortar (wall thickness 40÷60 cm) and of wooden posts sheathed with plank flooring (wall thickness 20÷30 cm) and plastered. Depending on the purpose of the premises, sheathed with sheets of plasterboard and decorated depending on the purpose of the rooms.

The lintels are mostly made of brickwork in the form of semicircular arches, bows, regular, and wedge-shaped ones.

The partitions in the rooms of the ground floor of the old volume are made of wooden elements; the frame of the racks is sheathed with boards on top of which a shingle shield is stuffed. In the rooms on the first floor, partitions are made of brick.

The surfaces of the walls and partitions are plastered or decorated depending on the purpose of using the premises: plastered with smooth plaster, pasted with wallpaper, painted, lined with ceramic tiles, and sheets of plasterboard.

Semi-basement and basement walls. The walls are made of brick; the height of the rooms is 3.17÷3.30 m and 4.69 m. In the semi-basement and basement rooms, there are elastic elliptical and semicircular vaulted arches with a height of 286 cm. There is no forced ventilation, and in most basements, there is no natural ventilation, as the window openings are bricked up. The basement rooms, due to the lack of ventilation, both natural and forced, and periodic flooding from the water supply and sewage networks, are affected by fungus, and there is destruction of bricks and damage to the masonry.

Columns. There are several internal columns, which are located on the first and second floors in the wings of the building. The columns are made of brick, square in cross-section, measuring 51×51 cm. The decoration of the external surfaces of the columns depends on the location.

The ceilings of the semi-basement and basement floor rooms are monolithic reinforced concrete (concrete with crushed stone from broken ceramic bricks and metal beams or rails). Metal I-beams of various sizes (No. 12, 14, and 24 cm). The ceiling serves as a ceiling in most rooms—plastered and whitewashed with lime mortar; in some rooms of the basement, a suspended ceiling is arranged. The inspection revealed areas of peeling and damage to the plaster; the exposed surfaces of the metal beams are affected by surface corrosion.

Interfloor ceiling: reinforced concrete floor slabs were installed during the reconstruction of 1956–1958.

Attic ceiling: made of wooden beams with a shield roll on the cranial bars and a pitch of 0.60 to 1.0 m, located across and along the central longitudinal axis of the building depending on the rooms above which they are arranged; the bottom of the ceiling is a board with shingles, and the space between the beams is filled with insulation made of a clay-straw mixture (total thickness is over the main volume 35÷40 cm). The ceiling beams rest on the load-bearing internal and external walls (the ends of the beams are inserted into the niches of the brickwork).

The ceilings were installed during the reconstruction of 1956–1958.

Roof structures. Roof, attic type, hipped roof of complex shape. The supporting structures of the roof are wooden structures (rafters, posts, braces, sleepers, and wall plates). The roof covering is made of multi-wave asbestos-cement sheets on a wooden crate.

Wooden rafter system (cross-section of posts – D = 20÷26 cm; rafters – 16 × 5 cm; braces – 12 × 12 cm). The pitch of the rafter beams is 120÷130 cm, and the pitch of the posts is 370 cm. The posts, lying rafters, rest on masonry walls and columns (height 47÷51 cm, thickness – 40 cm).

The height of the roof volume is different – 3.10 m above the central volume and 2.70 m above the wing volumes.

The attic is equipped with dormer windows.

The inspection revealed wooden structures are in places affected by woodworm beetles, fungus, and rot; there are places of waterlogging; the wood has changed color; there is a place where the rafters were reinforced with wooden adjustments in the place of damage by rot; asbestos-cement sheets are damaged, cracked, and shifted; and in significant areas there is no roof ridge covering, which led to waterlogging of the roof structures and floors.

The roof drain is externally organized, but the location of the drainpipes has been changed compared to the original solution. The drainpipe system has fragmentary damage, and in some places, there are no gutters or drainpipes.

Doors, windows. Window and door openings are of various sizes. By configuration, rectangular with semicircular arched ends; rectangular with elliptical ends; rectangular.

The lintels of the window openings are made of brickwork – simple, ordinary, wedge-shaped, and arched type, using a metal strip.

Doors. The historical main entrance is preserved and has the authentic dimensions of the doorway. The doorway with a semicircular arch at the end has dimensions of 2.56 × 4.77 m. The door block is wooden, with glazed panels and a light transom (dimensions 2.56 × 1.70 m). Initially, two entrances were arranged from the main facade, which served as the main entrance and an alternate entrance to the basement. These entrances have retained their dimensions and location.

The doorway to the semi-basement floor is located on the north side of the main facade and has retained its dimensions, but the door block and its arrangement in a single plane with the outer plane of the facade worsen the architectural appearance of the building. The door block is made of wood and sheathed with a metal sheet. There is no canopy above the entrance.

External entrances to the building from the courtyard – originally, there were three entrances to the above-ground premises of the building and two entrances to the basement. Currently, the entrances have retained their original location, but the building structures of the entrances to the basement have been changed.

Exit to the balcony-terrace – a double balcony door block made of a polyvinyl chloride profile with double-glazed windows. Internal – wooden door blocks, paneled, blind, and with glazed transoms; double-leaf and single-leaf, painted; door blocks made of MDF and metal.

Windows. The building's window openings are filled with wooden joinery and polyvinyl chloride profiles with double-glazed windows, but these window blocks do not correspond to the historical style of the cultural monument building and introduce disharmony into the aesthetic and architectural appearance of the facade.

The window openings of the roof volume are several dormer windows. Window blocks are made of wood.

Floors. In the basement, there is a concrete screed, and on the ground floor, there is a cement screed with ceramic tiles (a significant part of the coating is authentic).

The flooring of the stairwells and foyer is made of ceramic tiles (a significant part of the flooring is authentic). Most of the ground-floor rooms are covered with linoleum, laminate, and ceramic tiles.

Ceiling. In the basement rooms, it is plastered and whitewashed; in the rooms of the ground floor, it is plastered and painted, and in some places, a suspended ceiling is arranged. In the rooms of the first and second floors, the ceiling is plastered and painted, and in some places, a suspended ceiling of the Armstrong type is arranged. In most of the rooms of the semi-basement floor, the ceiling of a historical appearance has been preserved, decorated with cornices.

Ovens: not preserved.

Balconies. A balcony-terrace is arranged on the main facade of the building above the risalit of the main entrance. The terrace is large in size – overall dimensions 5.5×2.70 m. The location, dimensions, and terraces are authentic. The fence is a metal profiled sheet arranged between brick columns. A canopy is arranged above the terrace. The supporting structures are metal rolling, and the covering is a multi-wave asbestos-cement sheet. The modern design of the terrace does not correspond to the original historical appearance, which significantly worsens the architectural appearance of the building, a cultural heritage monument. The canopy covers the decoration of the central part of the main façade – a triangular pediment with the emblem of medicine.

Originally, the terrace was not covered with a canopy; the fence was made in the classicist style – a balustrade with a massive handrail was arranged between the parapet columns.

Porches. Historically arranged porches of the main and auxiliary entrances have been preserved. The porches are made using hewn granite slabs.

Above the entrances from the courtyard side, the visors have been preserved, the main structures of the brackets are authentic, and the pattern is made in the Art Nouveau style.

Stairs. The building originally had one main staircase leading to the semi-basement floor and ground floor rooms, as well as three staircases of organized external entrances to the building.

During the reconstruction with the addition of the first floor, the main staircase remained in its original form; the staircase leading from the foyer to the ground floor rooms changed – flights of stairs were arranged with an exit to the first floor rooms; two staircases were arranged in the wings of the building, connecting the ground and first floor rooms.

Since no reliable evidence of the number of floors of this building has been preserved, and the planning system of this building and the appearance of the buildings of the hospital complex indicate that the buildings of this complex are two-story, it is not appropriate to claim that the staircases to the first floor are not located in their original locations. It is more likely that the building had two full ground floors, and if the first floor was restored, then the staircases were located in the places of the original stairs.

Authentic staircases are made: granite blocks of steps are laid on metal structures (strings); the stairs, arranged during the reconstruction of 1957–1958, are made of prefabricated concrete blocks, and the staircases are fenced with a metal fence made of cast elements with a geometric lattice pattern, painted with oil paint.

Facade decoration and decorative arts products. The exteriors of the building are decorated with pilasters with stylized capitals (made of granite), stucco decoration of cartouches, and a medical emblem. The main entrance is decorated in the form of a portal with a circular perspective frame with stucco rods with a keystone. All of the above-listed elements of the architectural decoration of the facades are authentic. The stucco decoration has areas of damage, cracking, and peeling paint.

Engineering networks. Electrical networks, heating systems, water supply, and sewage are connected to the central networks of the city. Metal elements of the water supply and sewage network are damaged by corrosion.

Fence. The building's territory is fenced with a metal fence on brick pillars.

Planned reconstruction and restoration activities

It was decided to reconstruct the building with the addition of a three-story lift shaft and an attic floor superstructure, while the requirements for maximum physical preservation of the authentic structures of the architectural monument and decorative and architectural elements of interior and exterior decoration are mandatory to preserve the authentic appearance of the architectural monument building, which is inherent in the time and style of development (Figs. 5, 6).

Fig. 5. Variants of facade reconstruction. Author M. Omelyanenko: a – 1st variant; b – 2nd variant; c – facade before reconstruction

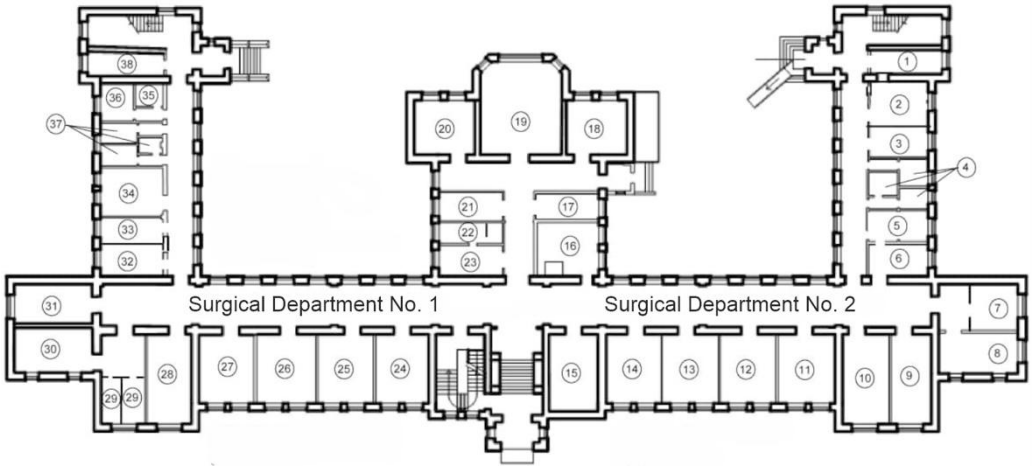

Fig. 6. Plan of the building after reconstruction. Author M. Omelianenko: 1 – head of surgical department No. 2; 2, 15 – resident rooms; 3, 16 – procedure rooms; 4 – toilets and shower room; 5, 38 – cafeteria; 6, 34 – dining rooms; 7 – dressing room; 8, 31 – manipulation rooms; 9-14, 24-33 – postoperative wards; 18 – anesthesia room; 19, 20 – operating room; 21 – sterilization room; 22 – doctors' changing room with shower; 23 – preoperative room; 35 – pantry; 36 – shower room with bath; 37 – toilets

The necessary complex of repair and restoration works of the architectural monument building included the following works.

It was planned to strengthen the granite masonry of the basement part of the building (northwestern and southwestern facades) and the brick masonry of the lintels above the windows where cracks appeared. To design the reinforcement of the structures according to the constructive solution of the design organization, but in such a way that does not change the aesthetic and architectural appearance of the facades and interiors.

It was planned to overhaul the wooden roof structures in the amount established by the design organization, restore the dormer windows, and, by decision of the design organization and in agreement with the customer, replace the roof structures (in the amount established by the design organization, without changing the existing volumetric and spatial solution).

The list of repair and restoration measures provided for the restoration of ventilation (including sewer) shafts in the volume of the roof and the reconstruction of the roof of the building, according to the customer's decision. Replacement of wooden roof structures with a subsequent arrangement of the attic floor – according to the design decision of the design organization. Provide reliable exits and exits from the attic rooms (for this purpose, provide for the arrangement of stairs in the volumes of existing stairwells). The general appearance of the attic floor (reconstructed roof) should be made in a single architectural style with the building, using elements and details used in the decoration of the facades. It is recommended to preserve the brick triangular pediment from the side of the main facade and the stucco elements of its decoration. Adhere to the existing volumetric and spatial solution of the roof of the building.

The roof reconstruction is planned to be carried out after an engineering study of the main supporting structures of the building and after carrying out works to strengthen the main supporting structures of the building, if such works are required.

The project provided for the replacement of the roof covering (by decision of the customer, in the amount established by the design organization); the material and color scheme must be maintained in a single solution for the buildings of the former Jewish hospital complex and the restoration of the metal grid of the roof fence. The height of the grid should be designed to

correspond to the height of the parapet columns of the attic, which are arranged on the buildings of building No. 3 (since the grid of the roof fence on buildings that are architectural monuments must have an identical appearance). The pattern of the metal grid should be stylized, which corresponds to the architectural solution of the building.

The list of works includes the restoration of the roof drainage system, which will ensure the effective drainage of atmospheric precipitation (the material is metal, and the color scheme of gutters, downpipes, and funnels is determined during the approval of the color scheme of the roof covering of the building). The decoration of the water collection funnels should be of the same type for the two buildings of architectural monuments.

It is planned to treat the wooden roof structures with certified fire protection and bioprotection products (according to the scope of the design organization), overhaul the current attic floor (to the extent established by the design organization), and waterproof the external surfaces of the foundations (to the extent established by the design organization).

Comprehensive repair and restoration works of the building's exteriors include the restoration of lost and damaged elements of architectural and decorative decoration with maximum preservation of the decoration elements that have survived and are authentic.

It was planned to restore the masonry of the pediment and restore its decorative decoration using hewn profiled bricks and elements of stucco decoration. The surface of the stucco decoration elements should be cleaned of layers of paint and dirt, plaster the lost fragments, restore the lost elements while maintaining authentic forms, and impregnate with solutions to increase moisture resistance.

Decorative elements (rustification, pilasters) and decoration of the facade planes, made of hewn, profiled granite slabs, are subject to careful, gentle cleaning of plaster, paint, and dirt; further painting of these elements is not expected.

The external surfaces of the brickwork of the walls after restoration work are subject to impregnation with water-repellent solutions; the prerogative decision is not to finish the main surfaces of the facades with paint.

Puttying and painting the surfaces of the facades at the level of the second floor will be possible if, during the cleaning of the surfaces of the walls of the second floor, an unsatisfactory condition of the brick and masonry joints is found. When painting the surfaces of the second floor, provide for covering the main surfaces in a color close to the color of the brickwork of the old volume of the building (surface of the first floor) and decorative elements in the finishing color.

The main surfaces of the brickwork of the first floor are open brickwork with restoration of joints under a convex roller; they are not subject to finishing (plastering, puttying, painting) or impregnation with solutions to increase moisture resistance.

It is possible to plaster (putty) the surface of interfloor cornices and rustications (which are made of brickwork) while respecting the relief of the shelves and cornice breaks.

The crown cornice of the basement should be decorated with plaster; the configuration of the shelves and chips should be identical to that preserved on the side of the main facade.

Restoration work within the crown cornice of the building – it is possible to decoratively decorate the upper belt of the cornice with smooth plaster, which is made of brickwork made of profiled bricks, observing the authentic forms of the shelves and chips.

Restoration of the decoration of the basement part of the building to increase the waterproofing of the basement planes and to perform facing of the flat planes of the basement with granite hewn unpolished granite slabs. The color of the granite is close to the color of the original blocks with which the basement of the main facade is faced. The size of the plane and the layout of the slabs should be kept identical to the existing ones.

Comprehensive repair and restoration work of light wells with effective waterproofing of the retaining walls of the wells: to increase waterproofing, perform facing of the external surfaces of the brickwork (or monolithic concrete casting) of the light wells with granite-hewn unpolished granite slabs. The color of the granite is close to the color of the original blocks that are used to face the base of the main facade.

It was planned to open a bricked-up window opening on the first floor from the north-western facade. In the window opening, which is bricked up, the brickwork should be dismantled, as it distorts the aesthetic appearance and is made in the same plane as the plane of the facade without deepening into the internal volume of the opening, which does not create a visual imitation of the openings. If, according to the modern needs of the hospital, there is no need for a window in these rooms, lay the window opening with brickwork, while the front facade plane of the niche masonry should be at a distance of 150÷200 mm in the depth of the window opening from the plane of the facade to imitate window openings. That is, in the places of window openings, arrange blind niches that will emphasize the proper division of the facade and architectural style. Do not use modern-facing ceramic bricks for masonry niches; Use high moisture-resistant brick whose structure and color scheme will be close to the existing old one. The window block that is planned to be installed should be designed identically in size and outline to the original window opening. The configuration (template) of the frames and the pattern of the window partitions and the level of the horizontal impost should be kept identical to the originally existing binding of the window frames. The material of the window blocks is wood, and the color scheme is wood.

With the approval of the customer of the design documentation, it is possible to design the glazing of all window blocks with double-glazed windows, and the window blocks of the corridors of all floors should be made of PVC structures, adhering to the color scheme and configuration of the window blocks made of wood.

Provide glazing of window blocks with energy-saving and solar-protective glass coating on the first and second floors in the wards and medical staff rooms (from the main facade, from the north-western side facade, from the south-eastern side facade, and in the operating rooms located in the central wing). When installing the window block, provide for the restoration of internal and external slopes and window sills.

The covering of the protruding architectural and decorative elements of the building facades, cornices, pediments, and window eaves shall be made of sheet steel. The covering shall be of the same type as the decoration of the building of Building No. 3.

It was envisaged to replace the covering of the light wells and possibly change (in size and appearance) the structures of the racks and brackets of the canopies to new ones. The appearance of the canopies shall be made in a single style with the architectural design of the building. The metal-forged brackets of the visors shall have an identical lattice pattern and covering material.

The list of works includes the restoration of bricked-up window openings in the basement rooms of the central wing of the building. The location and dimensions of the bricked-up window openings shall be determined by excavation and sounding. The window blocks shall be designed according to the dimensions and configuration of the restored window openings, stylized according to the time of construction. When installing the window blocks, provide for the restoration of internal and external slopes and window sills. It is possible to install metal grilles on the window openings (the grille pattern is identical for all grilles). Restore the light wells opposite the window openings. The decoration of the external surfaces and the covering of the restored light wells shall be designed identically to that planned for other light wells in this building.

It is planned to install a light well in the former mine to supply coal to the basement (central wing of the building), organized from the territory of the yard, as it has lost its intended purpose with the subsequent installation of a window opening.

It is planned to replace the window and external door blocks. When performing the work, the historical configuration and dimensions of the window openings should not be changed. Window blocks should be designed according to the dimensions and configuration (including the pattern of the window transoms) stylized according to the time of construction. When installing window blocks, provide for the restoration of internal and external slopes and window sills. The material of the window blocks is wood, and the color scheme is wood. The material of the door blocks is hardwood. The shape of the blocks should repeat the existing shapes of the openings – bow, semicircular, and rectangular. The door blocks should be designed as double-leaf (one and a half leaves) – according to the dimensions corresponding to the original door openings. Door leaves – paneled with slats, with carvings or carved figured overlays. Design the installation of door blocks in the depth of the doorway with the restoration of slopes.

Design all external door blocks of entrances and exits to the premises of the basement and first floors in a single style. It is possible to glaze window blocks, lighting transoms, and panels with double-glazed windows. It is possible to install metal grilles in the window openings of the basement (semi-basement floor). The grilles should be made of forged metal bars with a stylized pattern that corresponds to the architectural design of the building. The grilles should be identical on all window openings.

Restoration of historical (original) stairs with porches of entrances to the premises of the ground and semi-basement floors is planned, the steps and platforms of which are made of granite-hewn blocks. Stairs to basements made of monolithic concrete provide for facing with unpolished granite slabs of the natural color of granite, which are decorated in the basement.

The project indicates the restoration of the architectural appearance of the balcony-terrace from the main facade, designing the balcony fence from cast figured elements (balusters, parapet columns, and vases), restoration of the balcony ceiling covering with reliable waterproofing, and drainage of atmospheric precipitation. Restoration of existing authentic canopies above the entrances is planned (auxiliary entrances are organized in the side wings of the building). Installation of canopies above the entrances to the basements of the building. Make the canopies identical to the existing original ones. It is indicated that major repairs (possibly dismantling the masonry with subsequent restoration) of the external entrances to the basements, which are arranged from the courtyard, and dismantling of non-authentic extensions, which are attached to the central wing of the building, are needed. Provide for the construction of an oxygen station at a distance from the enclosing structures of the building. The construction should be carried out in a single style with the architectural solution of the building of the architectural monument. Dismantle the non-authentic porch of the auxiliary entrance, which is arranged in the central wing of the building, restore the porch using granite slabs (blocks) to cover the steps and the platform, and make the visor brackets identical to the existing original ones.

The project provided for the installation of an elevator shaft that would connect the first, second, and basement floors; the construction of a blocked volume of the lift shaft from the courtyard facade in place of one of the existing organized entrances to the semi-basement floor premises.

The architectural style of the three-story extension should be performed in a stylized architectural solution of the buildings of the former Jewish hospital, using decorative elements in brickwork. Door openings in the premises of the first and second floors should be organized in existing window openings by dismantling the masonry in the lower part. Special requirements: do not make changes to the main load-bearing structures without prior study and reinforcement.

The project includes the construction of a one-story utility building for the oxygen station (if the need for an autonomous oxygen station in building No. 2 is determined). The architectural style of the building is to be performed in a stylized architectural solution of the buildings of the former Jewish hospital, using decorative elements in brickwork.

The comprehensive project included the reconstruction of external communication networks of heating, water supply, and sewage with a change in the layout scheme. For the least interference with the authentic structures of the monument building during the reconstruction of engineering networks, it is recommended to use existing inputs and to provide for the replacement of existing pipelines and equipment with new ones that meet modern requirements and the latest technologies. The restoration of the blind area along the perimeter of the building facades is determined as a necessary component of the project.

A separate list of works included measures to restore historical interior spaces, in particular, comprehensive repair and restoration work on the interiors of the building's rooms with the restoration of lost elements of architectural and decorative decoration and major repairs (restoration) of the floor covering (in the scope and by decision of the design organization and with the approval of the project customer), while the replacement of the floor coverings, which are made of original ceramic tiles (part of the premises on the ground and semi-basement floors), was not envisaged. Interior repairs are envisaged in the scope and by decision of the design organization and with the approval of the project customer. Redevelopment of the premises is envisaged with the installation of additional partitions made of easily assembled building materials, without punching additional holes in the load-bearing walls of the building. Lowering the height of the premises is not envisaged in premises where arched openings in the transverse interior walls are arranged.

It was planned to replace the central heating networks (according to the existing scheme of the ground, first floors, and semi-basements); install heating networks in semi-basement rooms; and dismantle the metal structures of the heating system, the pipelines of which are located in the attic volume, if a decision is not made to install an attic floor. To preserve the authenticity of the monument building, it is recommended to use existing channels (in the walls, impassable under the floor, and in the semi-basement rooms) when reconstructing engineering networks. Provide for the replacement of existing pipelines and equipment with new ones that meet modern requirements and the latest technologies.

It is planned to reconstruct the semi-basement rooms, which are currently not used, for further full-fledged use by the medical institution as offices of the polyclinic and the surgical department. It is planned to carry out the work with maximum preservation of the main building structures (brickwork of the enclosing structures and brick vaults and arched openings).

The project provided for the replacement of the window (stained glass windows of the stairs) and interior door locks. When carrying out the work, it is recommended not to change the historical configuration and dimensions of the stained glass window openings and to design the window blocks according to the dimensions and configuration (including the pattern of the window transoms), stylized according to the time of construction. The material of the window blocks is wood, and the color scheme is wood.

When performing the work, it is recommended not to change the historical configuration and dimensions of the doorways. The shape of the blocks should repeat the existing shapes of the openings – arched, semicircular, and rectangular. The door blocks should be designed as single-leaf and double-leaf (one and a half leaves) in size according to the original doorways. The installation of the door blocks should be designed in the depth of the doorway with the restoration of the slopes; all internal door blocks of entrances and exits on the premises should be designed

in a single style. It is possible to glaze window blocks, lighting transoms, and panels with double-glazed windows.

The project states that all restoration and fire, sanitary, environmental protection, etc. measures planned to be carried out at the monument should not lead to changes in the monument and worsen its aesthetic, historical, scientific, or artistic value; it is necessary to apply traditional technologies for architectural monuments for performing work that does not violate the historical substance of the structures and complies with the requirements for materials for the restoration of monuments (similarity in composition to the original existing ones, their compatibility, reversibility, ability to be removed, and absence of harmful aftereffects).

The project was developed as a single-stage project.

Conclusions

The experience of developing a restoration project has demonstrated serious contradictions between the current Ukrainian monument protection legislation and the real needs of customers, including such socially significant objects as healthcare institutions.

Since the building is recognized as an architectural monument of local importance, according to Ukrainian legislation, we can only talk about its restoration. However, the real needs of the healthcare institution that uses this building (partly also due to the requirements of Ukrainian regulatory documents) necessitated the need for partial reconstruction. In this case, the resolution of the contradiction became possible due to the fact that the subject of protection, according to the passport of an immovable cultural heritage object, is primarily the main facade of the building. It was also required to preserve the overall maximum dimensions of the object before reconstruction (length, width, height to the ridge of the roof, etc.).

Therefore, the main means of increasing the total area of the object was the development of the attic space with the arrangement of the attic floor. At the same time, the total height of the building was not changed. Upon completion of the design work, the design documentation was agreed upon with the regional body for the protection of cultural heritage. The status of the object required the support of all types of work by inspection and supervision by a representative of the regional body for the protection of cultural heritage.

After the completion of the restoration work, a scientific restoration report based on the results of the author's supervision was provided to the body for the protection of cultural heritage.

A paradoxical situation has developed in Ukraine: even though the monument protection legislation is quite strict compared to the countries of the European Union, the general condition of immovable cultural heritage objects is worse compared to those of the EU. At the same time, in many EU countries, when restoring and reconstructing cultural heritage objects, regulatory documents allow a much more liberal approach, which considers the interests and needs of owners/users to a greater extent.

An analysis of the existing experience of monument protection activities in EU countries and the experience of the developed project indicates the possibility and necessity of changes in the monument protection legislation of Ukraine to provide a more flexible approach to adapting buildings of architectural monuments to current needs.

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