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FEATURES OF ARCHITECTURAL-RESTORATION ACTIVITIES TAKING INTO ACCOUNT THE ASPECT OF SYMBOLISM

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Abstract

The article examines the complex architectural restoration activity, considering the aspect of symbolism. It acquires new meanings and becomes the basis of sustainable project solutions for such three main groups of objects: historic buildings and their elements, historical architectural environments and cultural landscapes. Based on the developed projects for the restoration and reconstruction of objects, a number of both universal and unique measures are offered, with the help of which the maximum degree of emotional and aesthetic interaction of objects with viewers of different age categories is achieved. The main goal of such events is to encourage research and experimentation and to awaken interest in professions—historian, philosopher, artist, designer, restorer and architect. The main universal and social principles are presented, which, when interacting and complementing each other, actualize attention to monument preservation activities in the historical environment. When developing projects for the restoration and reconstruction of objects, the authors are guided by state and international regulations, charters and conventions and use modern materials. Projects demonstrate cooperation with territorial communities and interaction with local self-government bodies, showing how the aspect of symbolism can visually reflect the main cultural and spiritual values for social communication, memory fixation and "informative" architectural objects.

Keywords: *Aspect of symbolism; Historic buildings and their elements; Historical architectural environment; Cultural Landscape; Innovative restoration and reconstruction; "informative architecture"*

Introduction

Restoration activity in architecture determines a set of measures that provide for the preservation, restoration and adaptation of objects—things, their elements (details), layers of the architectural historical environmen and cultural landscape—to ensure their existence and sustainable development following modern conditions.

When studying objects to be restored, taking into account the needs of society and requests for their use by territorial communities, the following main criteria for restoration activities are determined: degree of preservation of objects and their damage, analysis of structures and materials, state of natural soils, preservation of the authenticity of the elements and the avoidance of intervention that could change the historical appearance.

When adapting to modern use, changing the functional purpose of the objects of restoration, if it does not conflict with security requirements, is the most common option for successful adaptation to the needs and wishes of the community or owners at present. If the restoration activity is carried out with a perspective for the future, then the sustainability of the

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objects is ensured. The main criteria for the success of restoration activities are respect for the historical value and significance of the object in the existing architectural historical environment and cultural landscape.

In world practice, there are the following categories of restoration: restoration of a historical building or its elements; integration of historical buildings and monuments into modern conditions; and restoration of the cultural landscape. It is the integration of buildings into modern conditions that makes it necessary to consider restoration activities in close connection with the reconstruction of objects. Only with close interaction of reconstruction and restoration is it possible to comprehensively solve all issues related to the adaptation of objects to modern conditions: during the restoration of the object—to preserve its cultural value and during reconstruction—to give it a new meaning of life.

Aspects of symbolism make it possible to preserve and strengthen the cultural, religious and national identity of objects of restoration and reconstruction. The historical symbolic context helps to reveal the uniqueness of objects and helps to form a full range of tasks for the design of restoration and reconstruction of objects. Symbolism has a deep emotional and spiritual impact on a community. Ignoring the aspects of symbolism when solving issues of restoration and reconstruction can distort or destroy the meaning of the existence of a particular object.

Architectural activity is more closely related to the historical architectural environment and cultural landscape. Considering the architectural activity through the prism of restoration activity and taking into account the aspect of symbolism, there is a possibility of creating a symbolic environment attractive for its uniqueness for the community and the development of sustainable tourism.

For example, in the scientific and practical activities of the teachers of the Department of *Architecture Fundamentals and Architectural Design* (AFAD) of the *Kyiv National University of Construction and Architecture* (KNUCA), architectural and restoration activities for the reconstruction of buildings and structures and the environment are closely related, so it can be said that complex architectural and restoration activities are related to the resolution of issues related to the reconstruction of objects. These complex architectural and restoration issues are investigated during diploma design and are taught to students in the following disciplines:

- for Bachelor students – "History of architecture and urban planning: History of Ukrainian architecture of the 20th century – beginning the 21st century" (Ph.D. Architecture, Associate professor, Docent – *Tetiana Ladan*);

- for Master's students – "Scientific and theoretical innovative research in architecture: part 2", "Theory of formation of "informative architecture" based on the synthesis of arts" (Ph.D. Architecture, Associate professor, Docent – *Tetiana Ladan*), "Methodology of reconstruction and new construction of public buildings in the historical environment" (doctor of architecture, professor – *Oleg Sleptsov*; Ph.D. Architecture, Associate professor, Docent – *Tetiana Ladan)* and "Scientific and theoretical research in the field of restoration and reconstruction of architectural objects" (Ph.D. Architecture, Associate professor, Docent – *Nataliia Mezhenna*; Ph.D. Architecture, Docent – *Iryna Novosad*).

In the world, there are three groups of restoration and reconstruction objects:

- *Object No. 1."Historic buildings and their elements"* [1-5];
- *Object No. 2. "Historic and architectural environment"* [6, 7];
- *Object No. 3. "Cultural landscape"* [8, 9].

We propose to further consider complex architectural and restoration activities with the possibility of reconstruction and inclusion of new buildings, taking into account the aspect of symbolism [10-14].

Architectural and restoration activities with any of these objects always affect a person, especially children and from early childhood can form a sense of aesthetics, cultural identity and responsibility. Direct communication with objects through educational cultural initiatives allows one to perceive objects as sources of knowledge about the past and future and about the

surrounding world, develop an interest in architecture and types of arts, design and form ecological thinking to understand the importance of preserving materials, nature and historical heritage. The symbolic aspect determines the close connection of children with culture and helps to form a sense of belonging to their cultural roots. Architectural and restoration activities can be a source of creativity for children's projects in the future, experiments and explorations of the universe. Interactive programs allow you to develop imagination and thematic activities create a sense of involvement in cultural heritage, its constant transformation and growth and the growth of a child into a conscious adult, proud of his city or country.

Since the restoration activity is aimed to a lesser extent at the children's audience, we will try to focus on such objects in which the architectural and restoration activity, taking into account the aspect of symbolism, is "informative" for children [12, 14], safe, integrated into the context and popularizing cultural heritage, using modern technologies (virtual reality, programmed lighting, light and shadow play, interactive panels, tactile and therapeutic surfaces and other measures).

Materials and methods

When ensuring the sustainability of an architectural building and its elements when integrating it into a modern architectural environment, it is recommended to adhere to the environmental friendliness of the materials used and to identify the possibility of creating special effects with their help.

For *Object No. 1. "Historical building and its elements"* such special effects can be natural materials that will ensure a change of colors depending on the lighting, viewing angle and weather conditions and will give the building uniqueness, unforgettability and modernity from its visual perception.

Modern materials and technologies can be used in the form of inserts so as not to violate the authenticity of the appearance of the historic building if it has a conservation status. The integration of historical buildings into the modern architectural environment can be ensured by the following promising effects of the use of materials:

- the shimmer effect of the facade is achieved by adding mica particles (natural, soft shimmer), pigments with a mother-of-pearl effect (soft iridescence of colors) and metal particles (deep shine) to the composition of paints during plastering. This coating can be used as a decorative coating on smooth and textured surfaces. It reflects sunlight or artificial light and gives surfaces historical value, the effect of luxury and elegance; it creates the effect of precious stones or imitates a water surface, silk fabric;

- the effect of surface interference can be achieved when using pigments that create color overflows due to a multi-layered structure (refracting light), similar to the surface of a transom or a transparent butterfly wing;

- the chameleon effect, or dichroism effect, is achieved when using special films that change the shade of translucent structures, ensure their durability and protect against ultraviolet rays.

Stucco Veneziano, mineral plasters with mother-of-pearl admixtures and decorative coatings with natural pigments reminiscent of ancient techniques are most often used in the restoration of architectural monuments. Expanding the palette of decorative plastering with various admixtures of natural particles will simultaneously emphasize the historicity of the building and create its futuristic appearance. Such an approach could become effective in the future, combining tradition and innovation: modernizing individual building elements and protecting against ultraviolet rays, pollution and mechanical damage.

In the catalogs of Ukrainian and foreign manufacturers, you can find optimal materials and techniques for creating decorative surfaces: Maxima-decor, Siltek, Kreisel, TRIORA and others.

For *Object No. 2. "Historical architectural environment"*, which is evidence of a certain period, preservation of harmony between all components and restoration of the compositional structure are the main approaches in architectural and restoration activities. When restoring the original appearance of the historical architectural environment, its restoration and reconstruction, the integration of modern buildings and structures, which must harmoniously fit into its structure, inevitably takes place. The most expressive effect of architectural and restoration activities to preserve a unique atmosphere can be the creation of a map of stylistic layers according to the stages of development of the historical environment (similar information can be provided by the "zoning" of the investigated territories [15, 16]).

For *Object No. 3. "Cultural landscape"* is important to preserve the unique character of the area – topography, water resources, green spaces and biodiversity. The integration of the cultural landscape into the modern socio-cultural space based on emotional and spiritual perception can be the basis of a set of measures to preserve the national identity of the place.

When creating unobtrusive, semi-visible inclusions both in the historical architectural environment and in the cultural landscape, it may be appropriate to use translucent concrete, the concrete of the future – LiTraCon (blocks up to 20cm, light-transmitting concrete, the invention of material, architect – Aron Losonczi, 2001, Hungary) from fiber-optic fibers (glass fibers) embedded in its structure, which conduct light. LiTraCon allows you to create unique light effects in enclosure structures, achieve energy-efficient solutions and help objects to be monolithic during the day and translucent at night. Since this material is very expensive, it can be used as a decoration (tiles with internal lighting). This can give objects lightness and airiness and create an additional volume.

In the case of architectural restoration activities based on spectacular relevant materials, the "aspect of symbolism" can be considered as a method that ensures the maintenance of historical memory, preserves the aesthetic value of objects for future generations, creates a special unique effect from the visual and meaningful perception of the image and symbolic components of the object and raises the economy due to the development of tourism.

Results and Discussions

We will consider examples of architectural and restoration activities during the restoration and reconstruction of various groups of objects, in cooperation with the communities of cities and towns of Ukraine and the world (Morocco).

Object No. 1. "Historical building and its elements".

Object No. 1a.

Restoration of facades with reconstruction of the exterior and interiors of a spectacular building with a change in function (typical cinema, built in the 1960s, City of Kodima, Podilskyi District, Odesa Region, Ukraine).

As part of the participation in the *Hackathon "100 Ideas for Cities"* (2024) on the task of the *Kodyma* City Territorial Community, it was planned to change the functional purpose of the building with a hall-like structure – a typical cinema – to a children's entertainment center. When inspecting the current state of the facility, it was determined that the load-bearing structures are in good condition, while the facade and interiors require restoration and reconstruction. The existing stairs do not meet modern standards, so they must be replaced. Also, the building does not meet the standards for its use by people with disabilities. Pylons at the entrance support a visor that transitions into a flat roof over the lobby. A flat roof is not used as a terrace. On the facade, there are protrusions of bricks – decorative elements that form a pattern that resembles a canvas for an ornament. The color of the facade is warm, sometimes pink, sometimes terracotta or ocher (Figs. 1 and 2). Thus, when drawing up the design task, restoration and reconstruction measures were included, which reinforced the importance of each other and made it possible to

transform a typical building into a unique one, organically fitting into the city's central park for recreation, which is immersed in green spaces.

- roof is not in use
- outdated style
- good structural basis

- play of light and shadow
- warm color scheme (ochre)
- dynamic composition

- characteristic brick protrusions on the facades
- warm color scheme (pink)

- lack of inclusivity
- lack of landscaping
- lack of window glazing

Fig. 1. Facades of cinema “Mir” before restoration and reconstruction
(Object No. 1a) (built in the 1960s, City of Kodyma, Podilskyi District, Odesa Region, Ukraine):
a – the northwest facade; b – fragment of the portico of the southeastern facade;
c – fragment of the north facade; d – fragment of the western façade
(photo by *Rosina Shepelia*, March 12, 2024)

- emergency condition of wall equipment
- outdated style

- blackout
- camaraderie

Fig. 2. Interiors of cinema “Mir” before restoration and reconstruction
(Object No. 1a) (built in the 1960s, City of Kodyma, Podilsky District, Odesa Region, Ukraine):
a – lobby; b – auditorium cinema (photo from the archive, Kodyma City Council, April 01, 2016)

When developing the project for the restoration of the spectacular building and its elements, taking into account the aspect of symbolism, the following was foreseen:

- preserve the outer shell of the building and the main supporting structures;

- preserve the authentic look of the building elements – the decorative pattern of bricks protruding from the plane of the facade (following a square grid);

- install day and night lights on their protrusions, which can be programmed to create a unique illumination of the facade with a visual picture of stars, constellations, orbits and comet tails. The cosmic theme was suggested by the existing visor on the main facade, which seemed to envelop the entrance and the front part of the building;

- supplement the visor surrounding the entrance with light structures and functionality so that it turns from symmetrical to asymmetrical, dynamic and resembles the orbit of the planet; create a green terrace on it;

- make shimmering facades with the iridescence of warm colors (pink, ocher and terracotta) due to the use of various impurities in plastering solutions.

When developing a project for the reconstruction of a spectacular building, taking into account the aspect of symbolism, the following was foreseen:

- disassemble the roof structure;

- make an atrium with overhead lighting in the room where the cinema hall used to be;

- make the galleries on the floors plastic and asymmetrical for a dynamic perception of the interior space;

- add additional "terrace-orbits" on the upper floors for cafe visitors, changing their asymmetric configuration, providing for their cantilever protrusion, or leaning on additional pylons that would come out of the existing load-bearing walls;

- terrace fences should be made based on the use of chameleon or dichroism effects to be able to see them as intangible – fantastic, cosmic;

- ensure vertical accessibility: replace the stairwell with a standard one; add another stairwell to evacuate visitors;

- ensure the modernization of engineering communications;

- when creating themed cafes on the floors, provide for 2 elevators, one of which would carry out the delivery of products and dishes to all floors and the second of which would regulate the removal of garbage;

- leave the outer shell of the building rectangular as it was;

- make a pitched roof – flat, operated;

- transform three supports – pylons, which will be relieved of the load of the visor changed in configuration into art objects: an ice cream cone, a stick with cotton candy and a lollipop; predict their function as mini-planetary rooms.

Thus, during the restoration and reconstruction measures, it was possible to create a thematic design image of the building; replace the name “Peace” with the original“ one—“Sugar Planet”, which would reflect part of the Universe; and organically and symbolically combine the internal and external structure of the building (Fig. 3).

Object No. 1b.

Restoration of facades and reconstruction of a historic educational building, with new construction, with preservation and expansion of function (typical school, built in the 1950s and 1980s, Kyiv, Ukraine).

By order of the administration of the Svyatoshynskyi District of the Kyiv School No. 40 building [17], “Block A” (built in the 1950s, educational and administrative premises) with a symmetrical compact 4-story U-shaped building was subject to restoration and renovation with maximum preservation of the existing volume as an object of historical heritage (cosmetic repair, painting and cleaning of the brickwork of the facade and compositional accentuation of the entrance group). The monotonous meter of window openings should have been diversified. Arches, pilasters and horizontal cornice belts should have been preserved. The number of educational cells in the school was insufficient and there was also a need to separate the students of the junior, middle and senior schools (Fig. 4).

- bright room
- open atrium space
- warm floor
- upholstered furniture
- interactive walls

- terraces
- the roof in operation
- green roof
- small architectural forms – mini planetary rooms
- inclusion and accessibility

Fig. 3. Facades and interiors of cinema "Mir" after restoration and reconstruction *(Object No. 1a).*
Materials from the project Hackathon "100 Ideas for Cities" (2024) on the topic:
Children's entertainment center "Sugar Planet" (authors of the project:
students of KNUCA – *Vira Vakhovska and Svitlana Hlushko* under the leadership
of architect docent of KNUCA *Tetiana Ladan,* March-April, 2024):
a – the interior of the atrium on the site of the former cinema auditorium;
b – the southeastern facade; c – the south facade

Fig. 4. Facades of School No. 40 ("Block A") before restoration and reconstruction *(Object No. 1b)*
(built in the 1950s, city of Kyiv, Ukraine, photo by *Olha Tkachuk (Pyvovarenko),* June 11, 2013):
a, b – south facade; c, d – north facade

Fig. 5. Facades of School No. 40 ("Block B") before restoration and reconstruction *(Object No. 1b)* (built in the 1980s, city of Kyiv, Ukraine, photo by *Olha Tkachuk (Pyvovarenko)*, June 11, 2013): a – south facade; b – north facade; c, d – east facade

For "Block B" (construction in the 1980s, physical culture and sports, general school premises for aesthetic education and extracurricular activities, service and medical premises), reconstruction measures could be envisaged to a greater extent. Large heat losses and a small useful area were the main disadvantages of the architectural and planning solution. Cladding the facade with tiles created discomfort in operation and restoration. When improving the territory, zoning and updating the landscape infrastructure should also be developed (Fig. 5).

When developing the project for the restoration of the educational building and its elements, taking into account the aspect of symbolism, the following was foreseen:

- composition techniques, due to the use of decorative panels, stucco and painting in bright colors, to give imagery, expressiveness and laconicism to the shape and silhouette of the building;
- for junior school students, depict various natural bright drawings on the walls in the visual range;
- for secondary school students, reduce the contrast of images and create a more organized visual structure;
- for high school students, provide abstractness of artistic images and greater detailing of planes and small architectural forms;
- apply expressive super graphics and polychromy;
- preserve the outer shell of the building and the main supporting structures;
- freeing the facade of "Block B" from tiles, insulating the facade and replacing windows with energy-saving ones.

When developing the project for the reconstruction of the educational building, taking into account the aspect of symbolism, it was foreseen:

- to change the scale of the school center;
- ensure the flexibility of the planning structure (possibility of transformation and adaptation);
- connect the blocks of premises with warm corridors at the level of the second floor;
- emphasize the input part;
- to complete the construction of a new functional volume ("Block B"), which would have universal rooms (halls) both for studying and for rest between classes (room area of 72m^2);

- adapt well-lit recreation areas for multi-purpose activities (create a universal space with the help of sliding walls, partitions and screens without changing the overall dimensions of the room);

- provide a teacher's office for each educational room;

- to ensure barrier-free accessibility to all premises and create a usable roof;

- create visual landmarks due to paving, lighting and the appropriate arrangement of small architectural forms, according to the laws of perspective and features of the terrain;

- demarcate recreation and leisure areas for children of different age groups, but preserve the possibility of their unhindered communication;

- for junior high school students, provide a game “labyrinth” system of small-scale spaces with small vegetation, differences in relief levels, support beams, slides and equipment that stimulates free movement, a cheerful mood and relaxation; provide a quiet recreation area with semi-closed spaces, galleries, pergolas, gazebos, cur-doners made of cut greenery etc.;

- for middle and high school students, apply the same measures, but increase the scope and integrity of decisions (Fig. 6).

Fig. 6. Facades of School No. 40 (“Block A” after restoration, “Block B” after restoration and reconstruction and “Block C” new building *(Object No. 1b)* (project by architect docent KNUCA – *Olha Tkachuk (Pyvovarenko)*, June-September, 2013): a – general appearance; b – “ Block C”, east facade; c – “Block B” and “Block C”, south facade; d – “Block B”, north facade.

Object No. 2. “Historical architectural environment”

The historical architectural environment is in the stage of constant formation and transformation; therefore, the expediency of implementing certain restoration and reconstruction measures is always relevant and individual.

When developing projects for the restoration of the historical architectural environment, taking into account the aspect of symbolism, the following measures should be taken into account:

- attribution of styles of buildings and structures and identification of stages of their formation;

- discovery of unique buildings and architectural monuments (including lost ones);

- development of maps of style layers;

- composite analysis of the existing pattern of streets, the location of squares, parks and other functional security zones and the structure of the general plan, compiled over the years;

- the correspondence of iconic state symbols (coat of arms, flag) to the symbolic compositional and artistic image of the compositional structure.

When developing projects for the reconstruction of the historical architectural environment, taking into account the aspect of symbolism, the following measures should be taken into account:

- determining the priority employment of residents, their needs for understanding the prospects for the appearance of this or that accent, dominant or background building, small architectural forms to strengthen the "spirit of the place";

- ensuring inclusiveness and barrier-free solutions.

Object No. 2a.

Restoration of visual memory of the historical cultural and artistic environment

As part of participation in the Hackathon "100 Ideas for Cities" (2024), the Baranivka City Territorial Community (City of Baranivka, Baranivskyi District, Zhytomyr Region, Ukraine) proposed the task of planning the territory of the "Park and Sports Complex named after V. Khomenko". According to the analysis of the figurative name of the city, it was decided to use spiral lines that would repeat the ornamental images of the ram's horns (elements from the city's coat of arms), which would correspond to its speaking symbol—the decorative dish "baranets". At the same time, the analysis of the surrounding buildings showed that the porcelain museum, created at the former Baraniv porcelain factory (1802, currently not working), is located near the park area. To revive local cultural and artistic traditions and the memory of the factory and its products, it was decided to use thin, translucent, symbolic forms-associations of small architectural forms in the form of bowls (like works of art), which by their appearance hint at and revive local traditions of porcelain production products.

Thus, the idea of restoring the memory of local traditions was decided in the project and small architectural forms based on hemispherical shells formed based on a metal frame, light trusses, colored translucent concrete and fiberglass were used in the reconstruction of the architectural environment and the creation of space for restoration. stained glass inserts—for safety and soft natural color shades. The authors suggested naming the project "Porceliana" (Fig. 7).

Object No. 3. "Cultural landscape"

The cultural landscape formed as a result of purposeful human activity preserves and shapes traditions and values, combining natural formations (mountains, rivers, fields, forests and meadows) with man-made ones (architecture, parks and land). Each cultural landscape has great spiritual significance for society. A large number of cultural landscapes need more restoration than reconstruction and are included in the UNESCO World Heritage List. Using the examples of three objects (architectural projects), we will consider what individual measures for restoration, reconstruction, or creation of a new cultural landscape can be.

When developing projects for the restoration of the cultural landscape, taking into account the aspect of symbolism, the following measures should be taken into account:

- preservation of the authentic natural environment, its "blue lines," and analysis of existing compositional characteristics;

- identification of new modern symbolic compositional components (visual – lines, planes, volumes; virtual – meaningful, determined based on analysis of other factors that have an impact on the object) to strengthen the meaning of historically composed, existing ones;

- nuanced, almost imperceptible inclusion of appropriate functional volumes and the use of natural or artificial lighting opportunities to create compositional accents;

- the use of natural local materials and, in accordance with the environment, preservation of the color range;

When developing projects for the reconstruction of the cultural landscape, taking into account the aspect of symbolism, the following measures should be provided:

- integration of new architectural volumes according to the principle of "fox hole" (with significant or partial immersion underground) or those that emphasize the natural landscape with minimal impact on the natural environment;
- improvement of the landscaping of the territory due to the inclusion of small architectural forms and regulated landscaping, watering and natural or artificial lighting;
- provision of barrier-free inclusive communication between all functional areas.

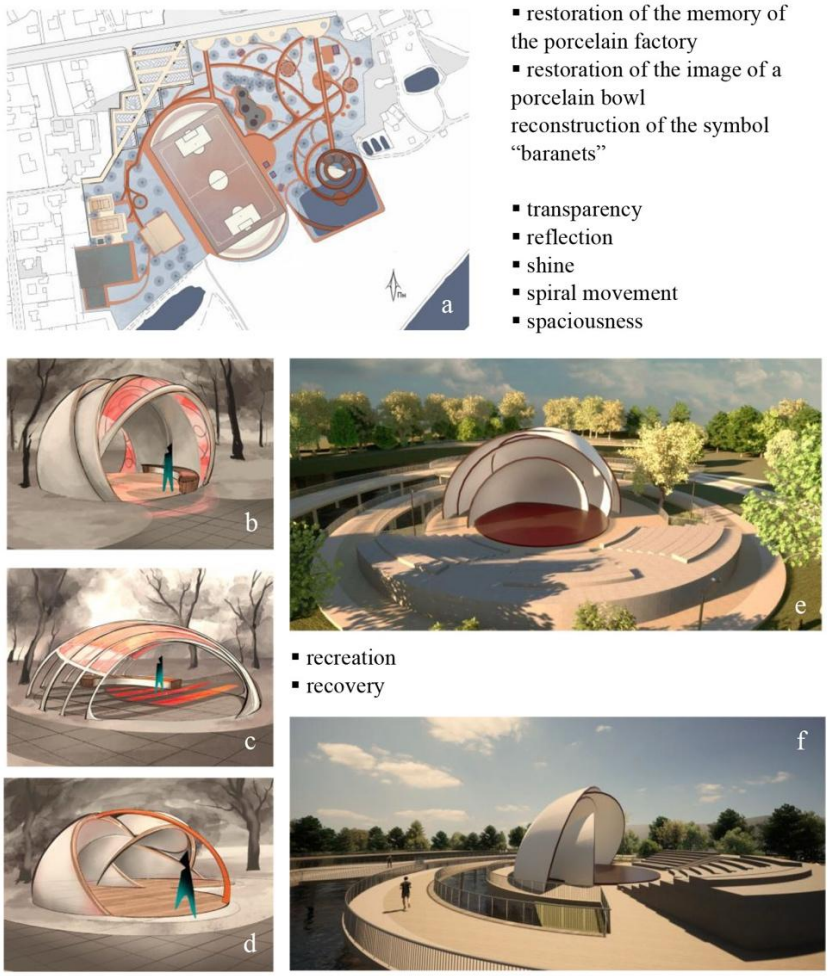

Fig. 7. "Park and Sports Complex named after V. Khomenko" in Baranivka City after restoration and reconstruction *(Object No. 2a).* Materials from the project Hackathon "100 Ideas for Cities" (2024) on the topic: "Recovery park "Porcelain" (authors of project: students of KNUCA – *Kateryna Kior, Stella Levchenko and Kateryna Balymova* under the leadership of architect docent of KNUCA *Tetiana Ladan,* March-April, 2024): a – master plan; b, c, d – small architectural forms – pavilion (drawings by *Kateryna Kior*); e, f – summer scene under the open sky

Object No. 3a.

Restoration of the cultural landscape – UNESCO monuments.

In the semi-desert landscape, near the *Ounila* River and the city of *Ouarzazate* in Morocco, there is a monument of the cultural landscape – a complex of a fortified settlement with the palace of *Ait-Ben-Haddu,* which is included in the UNESCO World Heritage List (1987). The complex

is built from local materials – wood, clay and stone. The houses have narrow windows and narrow streets. Today, the state of structures and decorative elements on the walls of the interiors and facades (tiles and stucco) is in an unsatisfactory condition and is subject to restoration. The mountainous landscape is organically compensated with architecture, perceived as one whole. Among the shortcomings in the transport infrastructure is the demonstration of a bridge crossing, which could connect the object of the cultural landscape of world importance with the settlements at the foot of the mountain, thereby significantly developing accessibility and the tourist sphere.

When developing the project for the restoration of the cultural landscape of UNESCO monuments, taking into account the aspect of symbolism, the following measures were envisaged:

- ensure the restoration of decorative elements made of local stone—stucco and tiles;
- use painting in colors traditional for the area, which imitate the colors of the natural landscape (yellow, ocher, red and terracotta);
- to ensure partial conservation of elements with the calculation of stopping the processes of destruction and preservation at the moment.

When developing the project for the reconstruction of the cultural landscape of the local UNESCO monument, taking into account the aspect of symbolism, the following measures were foreseen:

- at the foot of the historical complex, it was decided to create a new historical and local history museum complex, which would become a morphological part of the cultural landscape;
- to ensure the integration of modern technologies (multimedia) for the possibility of coordinated work of such main functional components as educational and educational, cognitive, scientific and technical, museum, commercial and coordination;
- in planning decisions, use traditional courtyards; covering the volumes is performed based on a folded structure that repeats the outlines of the local landscape; among the furnishing materials – to make a mosaic from "zellige" tiles (Fig. 8).

Fig. 8. Materials from the diploma project on the topic *(Object No. 3a)*:
"Principles of Formation of Architecture of Information Tourist Centers (on the example of the information historical and local history museum in the province of Ouarzazate in Morocco near the *Ait-Ben-Haddu* Palace, a UNESCO World Heritage Site)", 2022, student of KNUCA – *Soukaina El Mouhtaj* under the leadership of architect professor of KNUCA *Yuriy Seryogin* and docent *Iryna Novosad*: a – panorama of the historical cultural landscape; b – the formation of a new architectural structure at the foot of the mountain

Object No. 3b.

Renovation of the cultural landscape on the ruins of the historical monument

The castle on Mount Bona (a fortified structure of the 14th century in Kremenets City, Ternopil Region, Ukraine) was an important defensive object for centuries. It was rebuilt several times but is now in a dilapidated state. But even in its abandoned state, it is an important compositional dominant of the city. Kreints has great potential for forming a museum and tourist complex on its remains.

Also, the analysis of the general plan of the castle on Mount Bona showed that its shape is quite decorative and resembles a horse resting, lying high above the city. And the symbol of both the city itself and the castle can be a horse. This fact may help to improve the strategy of restoration and reconstruction of the city's cultural landscape for the future [18].

When developing the project for the restoration of the cultural landscape on the ruins of the historical monument, taking into account the aspect of symbolism, the following measures were foreseen:

- partial “re-immersion in the soil” to protect the actual residues from destructive environmental reagents;
- ensure in-kind conservation – leave the ruins in the most pristine form, carry out only chemical strengthening of the most authentic remains, anti-septic, hydrophobization and strengthening of the soil surface, so that there is no danger of further destruction;
- carry out conservation with fragmentary restoration, including relocation of found parts (installation in the former place of real fragments that changed their position during destruction);
- provide for engineering strengthening of individual parts of the ruins;
- strengthen restoration of ruins by injection;

All these activities can be included in educational and entertainment programs for visitors based on interactive and multimedia support.

When developing the project for the reconstruction of the cultural landscape on the ruins of the historical monument, taking into account the aspect of symbolism, the following measures were foreseen:

- deepen additional functional volumes into the relief while simultaneously conducting archaeological research;
- rebuild the object in its original form, using modern designs and materials (old and new materials must be different, thereby showing which elements are authentic);
- restore lost elements and create new ones with the help of light effects: illumination, holograms (“light traps”, 4D holograms) and various kinds of projections (2D or 3D projections for interactive shows) (Fig. 9).

Object No. 3c.

Formation of a new cultural landscape on a dynamic natural landscape

A dynamic natural landscape is a landscape that is characterized by instability and constantly changes under the influence of natural factors. An example of such a landscape can be considered, for example, an area with a dried water body and soils that are flooded or dried according to the season. An example of such a territory can be an open area in the village of Krasnosilka (Odesa District, Odesa Region, Ukraine). At the request of the Krasnosilka rural territorial community, it was proposed to turn a partially flooded area of 5 hectares into a “Rain park”. This would ensure the creation of a unique ecosystem with water resources management and would help reduce the risk of flooding, soil erosion and territory pollution.

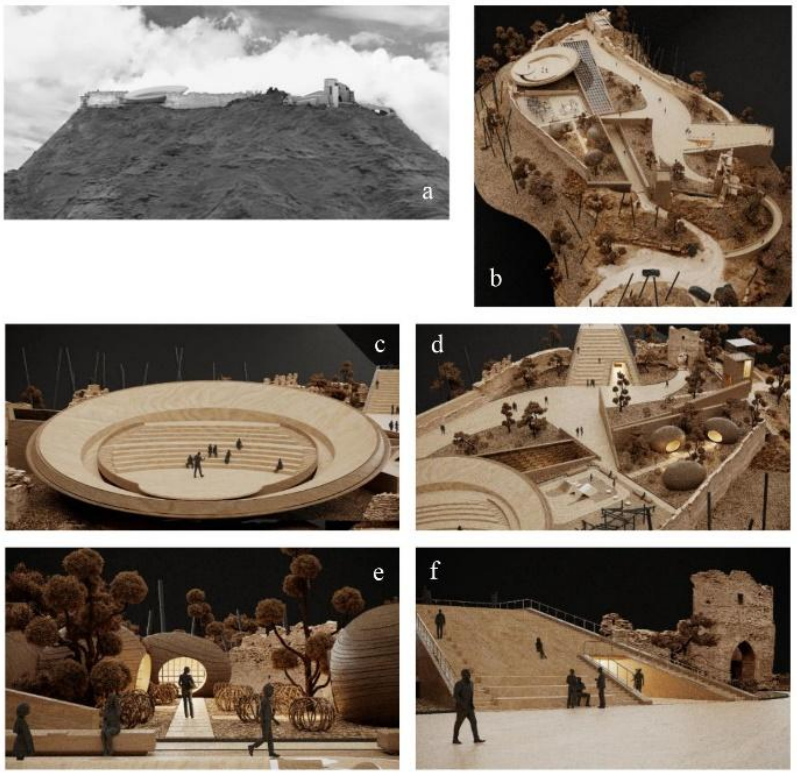

Fig. 9. Materials from the diploma project on the topic (*Object No. 3b*): "Features of reconstruction of fortification castles (in the context of the renovation of the Kremenets castle on Mount Bona as a tourist museum center in Kremenets city, Ternopil Region)", 2022, student of KNUCA – *Oleksandr Rekhlitskyi* under the leadership of architect, professor of KNUCA *Yanosh Vigh* and docent *Iryna Novosad*: a – panorama of the historical cultural landscape; b – forming a new architectural structure on the mountain; c – amphitheater; d, e, f – space to study artifacts

When developing a project for the restoration and creation of a new cultural landscape on a dynamic natural landscape, taking into account the aspect of symbolism, the following measures were envisaged:

- to lay in the compositional structure of the master plan dynamic natural wavy lines that would twist and flow into drops – circles of green areas or playgrounds—"islands" for recreation;
- create convenient communication routes on the territory: transport (car and special, bicycle), pedestrian;
- ensure water collection, filtration and distribution through canals and streams to reservoirs and fountains, including filtration through the vegetation layer and soil with special mixtures that would contribute to better drainage.

When developing a project for the reconstruction and creation of a new cultural landscape on a dynamic natural landscape, taking into account the aspect of symbolism, the following measures were envisaged:

- to ensure barrier-free accessibility and connection of the two "shores" of the village through a transport and pedestrian bridge that bends and connects existing transport routes;
- to ensure, through landscape design and the inclusion of small architectural forms, biodiversity and a favorable environment for birds and insects;
- to develop a rhythmic compositional system of volumes of small architectural forms based on circles that obey the theme – water, drops, flowing. The authors suggested naming the project "Dewdrop Oasis" (Fig. 10).

Fig. 10. The master plan of the Krasnosilkas Village after restoration and reconstruction **(Object No. 3c)**. Materials from the project Hackathon "100 Ideas for Cities" (2024) on the topic: Rain park "Dewdrop Oasis" (authors of project: students of KNUCA – *Nadiia Kuzko and Anna Fedorchenko* under the leadership of architect docent of KNUCA *Tetiana Ladan*, March-April, 2024)

Legal Issues

In the process of working on the projects, the main legal documents of the national legislation of Ukraine were taken into account – the Law of Ukraine *"On the Protection of Cultural Heritage"* (2000, Ukraine) [19] and the best international standards – conventions and charters that: regulate restoration activities – the *Venice Charter* (1964, Italy) [20], *Burra Charter* (1979, Australia) [21], carry out the protection of natural and cultural landscapes that are wetlands sites – the *Ramsar Convention* (1971, Iran) [22], regulate the protection of unique objects – the *UNESCO Convention on the Protection of World Cultural and Natural Heritage* (1972, France) [23], protect historical gardens and landscapes – the *Charter of Florence* (1981, Italy) [24].

Conclusions

The main universal and social principles that guided the authors when developing projects for the restoration and reconstruction of historical objects were:

- "preservation of authenticity" – refusal to distort the original form;
- "cultural value and social context" – formation of conscious aesthetic significance of the object for the community;
- "underlining the uniqueness of the environment" – using the original name of the architectural project – creating a unique brand;

- "complex solution of issues" – systematic solutions and development of trends;
- "scientific substantiation and documentation" – prove decisions and create a catalog of projects;
- "sustainability of decisions" – taking into account the needs of society at the present time and with a perspective for the future;
- "universality of measures" – the possibility of applying certain recommendations to other objects;
- "symbolic aspect" – reflection in project solutions of the main cultural and spiritual values for social communication, memory fixation and "informativeness".

The measures defined above for the restoration and reconstruction of groups of historical objects, taking into account the aspect of symbolism, can become universal examples of the scenario in which preservation and actualization of attention to historical buildings can be carried out. The interaction of nature, the architectural environment and the historical building should be organic and complementary. Enhancing the significance of each in a symbolic direction can turn the cultural landscape into an artistic and figurative work of art that will never be left out of society's attention. By influencing the consciousness of people, especially the consciousness of children and young people, in this way, respect for history, architectural monuments and a number of professions that provide psychological and aesthetic comfort of life in learning about the universe is developed – historian, philosopher, artist, designer, restorer and architect. Concentrating on the feasibility of considering any scientific and cognitive activity through the filter of the aspect of symbolism, we note that the profession of an architect in this case is the most strategic in the direction of concentration and development of a complex of measures for the recovery, restoration and renovation of all groups of objects – historical buildings and their elements, the historical architectural environment and the cultural landscape.

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You can familiarize yourself with the projects on the websites of city councils [25], the official pages of the councils and municipal institutions on the social network Facebook [26] and the page on the social network IRS with information about the *Hackathon "100 Ideas for Cities"* [27-32] and in the local press [33].

You can also participate in the search for potential investors and grantors for the implementation of projects.

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