



DOI: 10.21005/pif.2020.43.C-01

GENERAL APPROACHES TO SPATIAL FORMATION OF OPEN-AIR MUSEUMS EXHIBITION

Mariia Brych

Assistant

Author's Orcid number: 0000-0002-1074-0083

Lviv Polytechnic National University
Institute of Architecture and Design
Department of Design and Fundamental Architecture

ABSTRACT

The modern open-air museum needs a new attitude to itself and new approaches to its exhibition design that combines the historicity, authenticity, and veracity of monuments with modern requirements, methods, and means of the exhibition, meets the visitor requirements and makes the museum unique and viable. The article aims to determine general principles and identify effective approaches to the formation of open-air exhibitions in both Ukrainian and foreign museums.

Keywords: open-air museum, exhibition, display, space formation.

1. INTRODUCTION

The open-air museum attracts the masses, implements an active approach to its activities, remaining an educational institution. Numerous museums are transformed into large cultural and educational centers, where the exhibition function becomes just one of many parts of the overall program. Their exhibition is based on five concepts: education, presentation, experiment, and living history. These activities may include training programs, experimental research, demonstrations of ancient crafts and techniques, live exhibits, historical reconstruction, and others. Open-air museums need to be flexible enough to be able to offer something interesting to visitors in winter as well as in summer. Depending on the type of monuments they exhibit, open-air museums can specialize in different areas of human activity - it can be cultural, religious, gastronomic, eco-touristic, etc.

To fulfill its educational function, the exhibition must be scientifically reasonable, well-grounded, and thought-out, meet the requirements of veracity, and for economic success, it must be interesting to visitors and respond to their requests.

2. FORMULATION OF THE PROBLEM

Modern museum dynamic system requires a new attitude to itself and new approaches to exhibition design. Even ICOM recognizes that the general museum definition and the basic principles of their functioning stated in the Recommendation concerning the Most Effective Means of Rendering Museums Accessible to Everyone (1960) are now obsolete and in need of revising. State support for open-air museums in Ukraine is limited. Accordingly, there is a problem of developing economic programs for their maintenance and operation. Remaining an educational institution, the museum implements an active approach. Therefore, the concepts of architectural and spatial planning of the museum change from organizing showcase displays to mass cultural activity, which requires the use and adaptation of a large number of auxiliary areas.

The activities of traditional showcase museums are collecting, conservation, and demonstration. Open-air museums face a much wider range of issues, where the organization of a spatial exhibition that combines the historicity, authenticity, and veracity of monuments with modern requirements, methods, and means of the exhibition, meets the visitor requirements, makes the museum unique and viable.

The Paris Convention of UNESCO (2005) expresses certain approaches to the preservation of diverse cultural heritage. Among them, it is important to single out the principle of the complementarity of economic and cultural aspects of development, which states that both should be balanced in approaches to the use of historical heritage (Convention on the Protection and Promotion of the Diversity of Cultural Expressions, 2005, p.8). Unfortunately, in Ukraine, approaches to the protection of monuments either remain so inflexible that they limit the possibility of minimal adaptation to tourist needs, or, conversely, neglect the protection of monuments to the point where all their historical and cultural value is leveled to attract visitors with a kitsch product to obtain economic income. These two aspects must be balanced to raise funds and generate income that can later be used for the benefit of the museum, while the authenticity and cultural value of monuments will remain a priority.

Open-air museums nowadays pick the interest of many researchers. Numerous scientific works describe the characteristics of the exhibition's formation of the indoor museums. However, the specificity of the exhibition space organization in open-air museums is insufficiently highlighted in the scientific literature. V. Severin, L. Kalinina, M. Kaulen, T. Kuryanova, I. Posokhov, S. Tsygichko, T. Yureneva, T. Belofastova, I. Shevtsov started to consider peculiarities of open-air exhibitions. Some authors study particular types of open-air museums – for example, archaeological (D. Kepin, O. Tytova), architectural (O. Zhukova), or industrial (O. Mastenitsa). However, in the publications of both Ukrainian and foreign authors, general principles and approaches to spatial open-air modern exhibition formation are not systematically researched.

In Ukraine, open-air museums remain quite conservative but have the potential for improvement. Harmonization of their historical and architectural environment by reforming approaches to the formation of the exhibition will increase public interest and museum attendance (thus, rising popularity

and income funds). At the same time, a properly created exhibition will educate visitors through an unobtrusive arrangement of cultural landmarks and have a relaxing and stabilizing effect on a person as a result of his immersion in a correctly and harmoniously formed architectural environment.

Using critical analysis of scientific works and comparison of the actual existing open-air exhibition, the article aims to determine general principles and identify effective approaches to the formation of open-air exhibitions in both Ukrainian and foreign museums.

3. BASIC THEORY PART

In open-air museums, the monument itself and its constituent elements (forms, image, walls, building materials, construction equipment) are the main exhibits. Along with the authentic exhibits, artistic and technical means are used to enhance the emotional impact and interactive component of the exhibitions. The museum exposition is built based on original objects and is supplemented by auxiliary means (new works, models, reproductions, copies, various cartographic materials, etc.) (Yurenieva, 2003, p.258). The presentation of a well-designed exposition allows you to simultaneously influence different areas of the visitor's personality - intellectual, emotional, and moral. Therefore, the spatial organization of museums needs to choose the method of cultural heritage actualization and thus its translation. T. Kuryanova singles out fixation, interpretation, reconstruction, and revitalization among them (Kuryanova, 2012, p.56), and M. Kaulen adds modeling to the mentioned ones (Kaulen, 2012, p.105).

Fixation means turning a cultural monument into an exhibit without significant changes. To use this method, the monument must be well preserved along with the historic environment and require minor changes to function as a museum. The interpretation is based on a certain modification of the monument to preserve, museumificate, and functionally adapt it. Reconstruction can be carried out in some cases if there is a sufficient number of comprehensive scientific grounds if, for instance, the integrity of the ensemble is lost without a separate destructed building. In the absence of a sufficient scientific basis, modeling can be carried out - for example, imitations of historical settlements in museums of experimental archeology. When creating an open-air museum, there is also construction, which means the construction of new buildings based on elements of cultural heritage following the museum concept. Revitalization means the restoration of the cultural heritage object viability and its ability to function (Kaulen, 2012, p.107).

The method of fixation is most clearly observed in eco-museums. Interpretation can be found in all open-air museums, as most cultural monuments do not remain in their perfect form and require a certain level of restoration and small changes to adapt them to sightseeing. Reconstructions are mostly found in open-air museums, based on architectural ensembles. The modeling most often concerns archeological open-air museums, historical and cultural parks. The term revitalization should also be used for monuments of architecture and urban planning, but in open-air museums, it is also used for intangible heritage objects presented in the museum.

The combination of methods and means of monuments preservation and exhibition creation used in the museum form the basis for the further spatial and architectural organization. It is important to make the right choice - what to protect, what to preserve, what to reproduce, and how to form a unique museum environment, which will fully reveal the historical, cultural, and informational potential of the monument complex. After choosing the most optimal actualization and translation method for specific monuments or their ensembles, the concept of the museum's exhibition activity is determined.

The main concepts are entertaining, educational, archaeological, and scientific. Each of them provides a set of organizational forms, namely:

- entertaining concept (displays (tools, household items), living history (crafts, agriculture, traditions, and folklore), a historical reenactment of events, holidays and festivals, tours around the museum, multimedia events, tourist trade infrastructure (gastronomy, souvenir products), historical clubs);

- educational concept (lectures and seminars, training courses, workshops, educational publications);
- archaeological concept (current excavations, archeological exhibitions, experimental archeology, archeodromes);
- scientific concept (scientific research, scientific publications, scientific reconstructions, experimental archeology, staff training, restoration workshops).

According to the chosen concept, the set of exhibition activities of the museum is determined and space zoning is conducted, which can be divided into city-planning, architectural, and subject levels.

At the city-planning level, an environmental approach (based on the “environment conception”) is inherent in developing the planning structure of open-air museums. The environment can be interpreted as a qualitative, defined, organized, structured space, surrounded and filled with buildings that have the potential for interaction, the potential for connectivity and development. Environmental design in architecture is characterized by overcoming the isolation of architecture from the environment (Severyn, 2015, p.12).

The object of protection of multicomponent monuments, which are exhibited in open-air museums, is not only the physical form of buildings and their material basis but also their environment, natural surroundings, relief, the compositional integrity of architectural ensembles. In such cases, choosing between authenticity and veracity, the veracity of the ensemble artistic image comes first. To identify and reveal the potential of the historical environment of ensembles and complexes, the effective solution will not be the traditional preservation of the authentic material substance of individual objects, but their appropriate functional adaptation and arrangement of city planning structures.



Fig. 1. Map sign of Museum of National Folk Architecture and Rural Life "Shevchenkivskyi Hai" in Lviv, Ukraine. Source: author's photo.

In the approaches to the cultural landscape organization within the museum, three main activities can be distinguished: integration, recomposition, and integral reconstruction. The following measures are recommended to restore the visual integrity of the cultural landscape:

- creation of open and closed spaces system between tangible monuments and symbolic signs;
- reproduction of historically formed space boundaries;
- compositional integrity preservation of ensembles and complexes;
- restoration of the natural landscape (features of relief, water bodies, landscaping, etc.);
- limiting opportunities for new construction;
- symbolic marking of monuments and objects;
- arrangement of viewing deck and recreational areas (Fig.1).

Museums can play a role in economic development and contribute to profit-making activities. They participate in the activities of the tourism sector and the implementation of production projects,

helping to improve the quality of life of communities and regions in which they are located. A museum should not give priority to income-generating activities to the main functions, which can not be expressed in financial terms, but to diversify their sources of income and increase self-sufficiency, many museums may voluntarily or by necessity expand their income-generating activities.

Therefore, open-air museums provide a wide range of additional activities (festivals, concerts, workshops, souvenir trading, accommodation and food services, etc.), which require the construction of new structures or functional adaptation of existing ones. Their set depends on the size, profile, and resources of the museum, ensuring its integrity and distinctiveness, as well as the physical and psychological comfort of visitors. If certain functions threaten monuments but are desirable, they are taken out of the protected areas but included in the museum complex. All buildings and structures on the territory of the museum must fully perform the planned tasks, but at the same time not damage the monuments, harmonize with them, with the environment and with each other, forming an appropriate historical environment.

To create museum infrastructure, to ensure the integrity of perception, and to reveal the historical and cultural content of the monuments located in it, we consider it permissible to use the method of integral restoration and (partially) reconstruction. Reconstructed buildings in no way can be considered authentic, no matter how accurately they are reproduced, the lost material substance is unreproducible. Instead, in such cases, it is advisable to use the concept of veracity, which, according to O. Popelnytsky, measures the authenticity of the restored monument image on a wider scale of values (Plamenytska, 2014, p.85).

The historical environment that is displayed in open-air museums does not always have the right to claim comprehensive documentation but tries to achieve artistic veracity. The Nara Document on Authenticity states that sources of information about a monument may be contained both inside and outside the site and include concept and form, materials and substance, use and function, tradition and craftsmanship, situation and location, spirit and impression, the initial state and historical formation (Nara Document on Authenticity, 1994, p.2).

At the architectural level, the functional zoning of open-air museums should take into account the following main areas existence: entrance area, areas and rooms for visitor services, display areas and halls, administrative and service rooms for staff, museum storage, archives and restoration workshops, economic and technical rooms, restrooms. If possible, it is worth considering the availability of lecture and conference rooms. In large museums, it is important to create places for recreation, where the visitor will have the opportunity to relax after a long tour or eat lunch, as well as buy information booklets or souvenirs. Some functions impose on the architect requirements that are incompatible with the preservation of the structure of monuments - in such cases, the option may be to build new objects that will become part of the museum without being a monument.

Heritage sites that are not subject to any modern functional adaptation - ruins, defensive ramparts, fortifications, etc. - are full-fledged elements of the exhibition in open-air museums and can become the basis for various theatrical performances, multimedia installations, and tourist sightseeing routes (Fig.2). In this way, even those structures that cannot be used as premises for museum activities are preserved and protected.

When creating open-air museums, it is important to adhere to compositional integrity. The elements of the museum must have their hierarchy and obey the dominant, which often is the most valuable monument. The stylistic harmony of all elements is important, especially complementing the newly created objects such as utility rooms, information kiosks, or public welfare.

S. Tsygchko identifies the following aspects that provide psycho-emotional comfort of architectural and artistic image:

- convenient viewing of the complex, which consists of revealing the most interesting fragments of the environment by creating observation decks and visual corridors;
- individuality, which is manifested in the presence of unique design elements (in the case of open-air museums, this aspect will be provided by unique immovable monuments), which become dominant in the background of the landscape;

- information saturation, which is expressed by the amount of information that can be obtained by contemplating the complex;
- mobility of the architectural space or the possibility of transforming the means of landscape design (in the case of open-air museums - providing space that can be used for various events and transformed according to needs) (Tsygichko, 2007, p.20).



Fig. 2. Archaeological site and museum building as parts of the open-air exhibition near São Jorge Castle. Praça Nova, Lisbon, Portugal. Source: (Archdaily, 2010).

The planning structure and compositional solution of Ukrainian open-air museums depend on the touristic routes (Fig. 3), among which we distinguish the target, directional, encircled, multiprogram, free, and combined. The most common are encircled and the target schemes of tourist routes, as well as the combined type. The first option is typical for large museums, and the second - for small institutions.

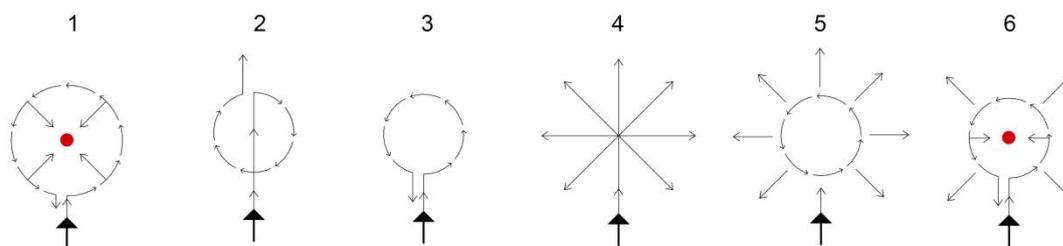


Fig. 3. Touristic routes schemes in open-air museums. 1 – target route, 2 – directional route, 3 – encircled route, 4 – multiprogram route, 5 – free route, 6 - combined route. Source: author.

The subject level of zoning corresponds to the formation of the exposition itself. New approaches in the design and decoration of the museum environment have led to the transformation of exhibition spaces. In modern open-air museums as the main exhibition spaces we define the following:

- functional space - a place set for the implementation of activities in the museum (Fig. 4);
- display space - organized architectural objects and structures, spatial systems and design elements of the exhibition, formed by the equipment and environment filling (Fig. 5);
- substantive space – concrete displays and exhibitions formed with artifacts and small exhibits (Fig. 6).

Overlapping, spaces create a complex "environmental space" that combines emotional, figurative, and pragmatic interaction of the three previous structures. Different types of open-air museums are characterized by a different set of exhibition spaces. These spaces are formed by various means of demonstrating objects and transmitting the information.

Fig. 4. Horseriding masterclass on the plain near Tustan fortress in Urych, Ukraine. Source: (Tu stan!, 2018).



Fig. 5. Symbolic reconstruction by Edoardo Tresoldi in Siponto historical park, Italy. Source: (Designboom, 2016).



Fig. 6. Beehives open-air display in Museum of National Folk Architecture and Rural Life "Shevchenkivskyi Hai" in Lviv, Ukraine. Source: author's photo.



To hold cultural events, it is necessary to provide the existence of entertainment areas - stages or other demonstration rooms, as well as auxiliary rooms – for costumes, scenery, and equipment, dressing rooms, as well as to ensure the use of audio and video equipment.

It is important to preserve free space, which focuses on the exhibits and creates space for visitor interaction with individual monuments. Due to the versatility of architectural monuments, a visual environment is organized so the visitor's attention can be focused on the exhibit through lighting, color, and sound, which creates an enhanced emotional impact on the viewer, as well as increase the cognitive value and expressiveness of monuments. Lighting and sound equipment provides a high degree of interaction between the exhibits and the visitor, creates emotional pulls that increase the audience's interest and immerse the visitor in the exhibition.

The popularity of excursions based on walking routes proves that space itself can be a fascinating attraction if it is organized uniquely due to nature or mankind. Most open-air museum spaces are open. There are three main approaches to their organization, namely: a clear division of separate zones; integration of zones into a single space; combined flexible structures. Features such as complexity, variety, and continuity of visual and transit links between parts can increase a visitor's interest in space. In open-air museums, spaces are limited by existing attractions, so the choice of approach to the space organization depends on the location of existing facilities and is organized by supplementing them with new elements and the formation of a tourist route.

The popular principle of the modern museum exhibition, which is also inherent in open-air museums, is interactivity. "Living history" has outgrown the usual theatrical action and has become a method of transmitting information, a philosophical and educational tool. It can stimulate all five human sensations and affect emotions and intelligence (Fig. 7).



Fig. 7. „Living history” act in Black Country Living Museum, Dudley, Great Britain. Source: (Society19, 2018).

The term "living museum" was first proposed by J. Cotton Dana in 1917 in his book *The New Museum*. It treats a "living" or "useful" museum as a museum that positively influences the communities associated with it, organizing leisure and training of the local population based on the study of its current needs (The new museum, 1999). Although this definition is more appropriate for the term "useful", it is the term "living" museum that became widespread and popular. In essence, as a metaphor, the name "living exhibition" is widely used today - most often, defining the demonstration of intangible heritage in historic parks. The term "living" museum or "living history" museum was officially recognized at the 19th session of the ICOM General Conference in 2001 and refers to those museums that collect, preserve and exhibit not only material artifacts but national traditions, crafts, beliefs, folklore, which were formed in a particular area and characterize it. Most often, these are open-air museums.

Visual demonstration is always more effective than ascertaining facts. For this reason, "historical reconstructions" are organized, which consist of the theatrical reflection of a certain historical event. If this action takes place in an appropriate environment, and not on the stage or the TV screen, such an action leaves a much stronger impression and is much better remembered. Such "reconstructions" are often carried out in open-air museums and are another manifestation of the "living museum". They can be very different both in purpose and in the nature of the renewable material, as it is possible to distinguish additional ideological, behavioral, technical, material reconstructions. We can distinguish reenactment of events, reconstruction of objects, reconstruction

of symbolic actions, and rituals (Posokhov, 2014, p.107). The most acceptable form of combining the environment of open-air museums and historical reconstruction can be considered a folklore-ethnic or cultural-historical festival.

The museum exhibition space reaches a qualitatively new level. Increasingly, it combines material and the virtual environment with the help of new information and multimedia technologies. The use of modern technologies in museums provide an opportunity to expand the information component of the exhibition, to demonstrate the subject in the context of virtual space, in the atmosphere of the relevant period. Multimedia technologies provide interactivity of the exhibition, attracting visitors to the game, active participation in the exhibition, demonstrate phenomena and processes that are impossible or difficult to observe in real life, as well as orient in the museum space, which is important in open-air museums territory.



Fig. 8. Mapping laser show. Tustan fortress in Urych, Ukraine. Source: (Tu stan!, 2018).

Multimedia technologies provide enormous scope for action and technological developments make them increasingly flexible to use. Now they are used mainly indoors, but less often they are used outdoors when organizing various shows and cultural events (Fig. 8). Multimedia museum technologies include various display systems: interactive kiosks, special information areas integrated into the museum computer network, which allow the visitor to work with databases of different collections, multimedia installations, built into the exhibition space, museum guides, various role-playing or simulation games, holographic and projection installations, as well as lighting and sound equipment (Kalinina, Proletkin, Shpak, 2006). Augmented and virtual reality tools are gaining more and more popularity. The most effective technologies in open-air museums will be LBS (location-based service), AR (augmented reality), and RVI (real video images).

4. CONCLUSION

Today it is a well-known fact that modern society is focused on entertainment and scenography in any socio-cultural process. Undoubtedly, this feature also applies to museums. If the museum wants to attract the public, it must not only offer a set of exhibits and services but also ensure their quality and conditions for a comfortable stay in the museum. In other words, along with reliability and informativeness add a certain attractiveness.

To optimally combine these qualities, it is important to choose a method of actualizing and translating cultural heritage objects in the museum using fixation, interpretation, reconstruction, revitalization, and modeling methods. Having such a set of methods, the exhibition concept of the museum is determined - entertaining, educational, archaeological, or scientific. They can intersect with each other, it is also possible that a specific museum will use a special concept, but each of them corresponds to a certain set of exhibition activities of the museum. To ensure the viability of the museum, space zoning is conducted at the city-planning, architectural, and subject level. The city-planning level of the open-air museum is determined by the environmental design of the total

ensemble or complex of monuments, the architectural level provides for the organization of existing buildings, structures, and spaces between them, and the subject level corresponds to the direct formation of exhibitions.

In modern open-air museums, exposition is formed with the functional, display, and substantive, spaces. Each open-air museum is special, has its unique feature associated with the monuments exhibited in it. In addition to them, the museum provides a wide range of additional activities like festivals, concerts, workshops, souvenir trading, accommodation and food services and houses additional displays. They can be standard or contain an attractive element - for example, an interactive or animated display. A feature of open-air museums is the combination of learning with experiences, games, entertainment, and recreation.

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AUTHOR'S NOTE

The author works as an assistant at the Department of Design and Fundamental Architecture of the Lviv Polytechnic National University. Mariia Brych conducts her research on open-air museums for acquiring a Ph.D. degree.

Contact | Kontakt: marichka_brych@hotmail.com