LANDSCAPE STUDY ON THE USE OF WOOD IN THE REHABILITATION OF THE "BOJDEUCA ION CREANGĂ" MUSEUM GARDEN IN IAȘI

Codrina GRECU, Corina-Laura SANDU, Ana-Maria-Roxana ISTRATE

"Ion Ionescu de la Brad" Iași University of Life Sciences, 3 Mihail Sadoveanu Alley, Iași, Romania

Corresponding author email: roxana.istrate@iuls.ro

Abstract

This work presents the idea of arranging the space in the courtyard of the "Bojdeuca Ion Creangă" Museum in Iași. The objective is to make the space more efficient and create a favorable environment for specific activities. Through a detailed study of the site and a documentary study on the history of the building, the need for rehabilitation and appropriate landscaping was identified. The project is designed in a predominantly geometric style, combining the geometric elements imposed by the plan form with free plant design elements to give the whole composition a harmonious and aesthetic appearance. By strategically dividing the space into distinct functional areas and equipping them with specific furniture and plant elements, the landscaping will provide an optimal setting for cultural, recreational, and leisure activities within the museum. Thus, by integrating the ideas of landscaping with wooden objects in the proposed context, a new and valuable framework will be created for the experience offered to visitors in the courtyard of Ion Creangă's Bojdeuca

Key words: museum garden arragement, public garden rehabilitation, wood landscape design.

INTRODUCTION

The present work results from the rigorous and careful work done to realize the Diploma Project of the co-author Sandu Laura-Corina. This project came as an idea in the context of the recent and controversial rehabilitation works of the building and courtyard of the "Bojdeuca Ion Creangă" Museum in Iași. Some of the historical sources that give details about the foundation of the museum and then about the first intervention of restoration and rehabilitation of the museum house or about the last intervention are present on sites like historia.ro, dosaresecrete.ro, romania.europalibera.org, and many others.

To support this approach of scientific research on the rehabilitation and restoration process of sites with historical, architectural, and landscape value, several works with the same specificity have been studied, of which we mention the one rehabilitation of concerning the the Metropolitan Park with historical and archaeological vestiges in Târgoviste, Dâmbovița county (Pascu, Zlati, Calance, 2021), or the one that foresees the restructuring and redevelopment of the green space around the stadium in the city of Orăștie (Pascu et al., 2021). Another work studied is the one that brings into discussion the improvement of the quality of urban life through the introduction of landscape architectural elements in a project proposal within the square of Independence Square in Iasi, whose central point of interest is the monument of the Independence Statue (Cojocariu et al., 2023). The quality of urban life is also brought into question in Grecu's work, by introducing the principles of therapeutic gardens in the redevelopment of the green space of the neurology hospital in Iasi (Grecu C. et al., 2023). Other works mentioned are broader historical studies on the restoration of historical and architectural sites in Romania that include the part of gardens or parks related to them (Comanescu and Raducan, 2016), (Dobrescu, 2013) or a study on the successive rehabilitation interventions of the Herastrau historical monument park in Bucharest (Tudora, 2020). Another work proposed a project design for a private garden for events with multiple purposes in a existing beautiful wooded site in the Iasi city, Romania, on the shores of Lake Ciric II (Istrate et al., 2023).

The second part of the paper will present the idea of the space arrangement in the courtyard of the "Bojdeuca Ion Creangă" Museum in Iași. The objective is to make the space more efficient and

create a favorable environment for specific activities. The need for rehabilitation and appropriate landscaping was identified through a detailed site study. The project will be designed in a predominantly geometric style, combining geometric elements imposed by the shape of the plan with elements of free plant design to give a harmonious and aesthetic appearance to the whole composition. By strategically dividing the space into distinct functional areas and equipping them with essential elements, the landscaping will provide an optimal setting for cultural, recreational, and leisure activities (Dascalu and Cojocariu, 2016). Landscaping aims to create a pleasant and optimal environment for cultural, recreational, and leisure activities in an atmosphere that reflects the theme and spirit of the museum and allows visitors to connect with this place's history and cultural heritage. Thus, integrating the design ideas and preserving the importance of wood in the proposed context will create an authentic and valuable setting for the experience offered in the courtyard of the "Bojdeuca Ion Creangă" Museum in Iasi.

MATERIALS AND METHODS

This work focuses on rehabilitating the area surrounding "Bojdeuca Ion Creangă" Museum in Iași. The aim is to introduce wooden street furniture, decorative objects made of the same material, and ornamental plant compositions, enhancing and harmonizing the arrangement. The objective is to create a new green space dedicated to socializing and relaxing for the inhabitants of Iasi.

The rehabilitation of the area is an essential step in preserving and promoting Iasi's cultural heritage. Adding wooden street furniture and decorative objects aims to revitalize the place's aesthetic and provide facilities and comfort for visitors.

These wooden elements will be chosen and placed considering the garden space's functional needs. They will be designed to combine traditional aesthetics with modern utility, providing a pleasant and relaxing atmosphere for those who will frequent the space.

Creating this new green space encourages social interaction and connection among the residents of Iaşi. It will become a place to meet, spend leisure time, and relax, contributing to improving the community's quality of life.

The study material is based on general documentation of the features and typology of landscape design specific to the theme and an analysis of the space's current situation. At the time of the study, the site was under redevelopment and did not offer many opportunities for visitors.

Research methods specific to diploma projects were applied in the preparation of this work:

- Expert documentation from print and electronic sources to ensure a solid knowledge base and a detailed understanding of the subject of study.

- Analysis of existing case studies addressing similar real sites. This stage involved documenting and carefully examining the different approaches and solutions identified in these case studies, designed to address objectives identical to those proposed in the redevelopment process. One of these is the Amphitheatre of the Moscow Polytechnic Museum, whose landscape resolution inspired the introduction of water steps and decorative vegetation in the resolution of the studied slope (https://archello.com/project/museum-park-of-

the-polytechnic-museum-in-moscow). Another case study was the garden of the Shakespeare family's birthplace in Stratford-Upon-Avon, which inspired the present project through the variety of decorative and aromatic plants that make up the picturesque compositions of the garden of the famous british museum (https://www.theenglishgarden.co.uk/gardens/v isit-the-new-garden-at-new-place-

shakespeares-family-home/).

The aim was to identify ideas and strategies relevant to the redevelopment project by analyzing these approaches and solutions.

Site analysis through a site visit and on-site analysis. This direct site analysis was necessary to gain a comprehensive and coherent understanding of the site. Based on the information and observations obtained during the visit, the redevelopment solution could be designed appropriately and adapted to the site's specificity.

- Design and preparation of the project for the redevelopment of the courtyard of the "Bojdeuca Ion Creangă" Museum, using a computer program specific to the garden design process, carrying out both the written documentation of all the stages of research, case study, and analysis of the existing situation and the actual design part presented in plans and perspectives of the overall and detail of all areas related to the museum courtyard, with the description of plant compositions and the preparation of a general estimate of works and plant materials and furniture.

RESULTS AND DISCUSSIONS

The "Bojdeuca Ion Creangă" Museum is in a quiet and picturesque settlement in the Sararie district of Iasi, Romania. The land on which the hovel is situated is approximately 2,500 square meters (according to the site plan in Figure 1) and is integrated into a residential setting. The surrounding area is characterized by a pleasant atmosphere and picturesque landscape.

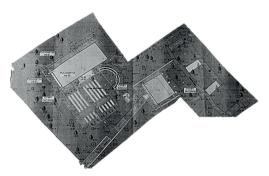


Figure 1. Situation plan of the site of the "Ion Creangă" Museum Complex

At the time of the study, both the outdoor space and the building of "Bojdeuca Ion Creangă" Museum were undergoing rehabilitation and renovation, which included the rehabilitation and modernization of the infrastructure of the grounds as well as the structure of the amphitheater and the building. The museum courtyard has only one access road (Figure 2 left). During the works, the drainage system of groundwater and rainwater from the slope was restored, which required the dismantling and restoration of the amphitheater in front of the "Bojdeuca Ion Creangă" Museum (Figure 2 right).

There is considerable mature vegetation on its surface, predominantly consisting of deciduous trees and shrubs. However, it is essential to note that most trees show signs of decay. The vegetation is affected by various factors, including neglect and lack of proper care (Figure 3).



Figure 2. Existing situation (steps to the main access (left); amphitheater and "Bojdeuca Ion Creangă" Museum building (right)

As part of the rehabilitation, special attention is paid to caring for and restoring damaged vegetation and introducing new and young species. The aim is to preserve the site's authentic character and provide visitors with an attractive and pleasant landscape.

Renovating the museum's back area involved changing the design and rebuilding the existing infrastructure to bring a splash of color to the site (Figures 3 and 4).



Figure 3. The existing situation of the slope behind "Bojdeuca Ion Creangă" Museum

At the time of the investigation, the area at the rear of the woodland was being used as a storage area for waste, and materials from the construction site were still in progress. Intervention was needed to transform this area into a landscaped and functional space (Figure 3).

The S.W.O.T. analysis method was used to effectively assess and make informed decisions on planning and practical solutions for implementing design concepts. This strategic approach is a valuable tool in landscape design, providing a detailed assessment of a site's existing conditions and potential before the redevelopment process.



Figure 4. The existing situation of the slope behind "Bojdeuca Ion Creangă" Museum

Strengths analysis identifies valuable site features such as mature vegetation, architectural elements, or outstanding historic features. These can be enhanced and integrated into the redevelopment project to accentuate the site's beauty and authenticity. The weaknesses analysis focuses on aspects that need improvement, such as the degradation of existing vegetation or accessibility issues. With the right approach, professional restoration, and care interventions, these weaknesses can be reduced entirely or eliminated.

The installation of appropriate street furniture and efficient lighting systems highlights opportunities. Landscaping and the introduction of proper plant compositions for each area will help create an attractive and safe environment that promotes cultural and recreational activities and social interaction within the site.

Threats are external factors that may affect the redevelopment project, such as neighboring buildings, legal issues, or climate change. Appropriate protection and adaptation strategies can be developed by identifying and anticipating these threats to counter their potential negative impact.

Thus, applying the S.W.O.T. analysis method, a comprehensive site assessment is obtained, which can guide design decisions and practical solutions in the redevelopment process. The evaluation considers favorable aspects and those requiring improvement or additional protection.

Functional zoning

Following the studies and analyses carried out, as well as the identification of specific dysfunctions, a detailed zoning of the space of the "Bojdeuca Ion Creanga" Museum in Iasi was carried out. This approach aimed to ensure a good organization and development of the various activities taking place within the site.

Through zoning, the aim was to optimize the use of space and create an environment suitable for

each activity, thus respecting each area's functional and aesthetic requirements. Therefore, each zone has been planned and

developed coherently, considering each area's needs, traffic flows, facilities, and objectives (Figure 5).

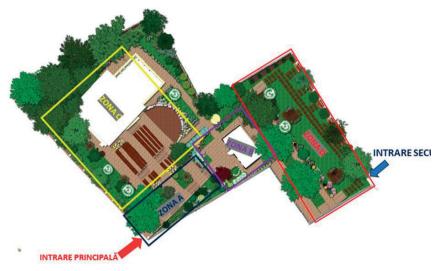


Figure 5. Zoning of the "Ion Creangă" Museum Complex in Iași

Area A has been identified as the current main entrance to the site space. It comprises a set of four steps descending to the front of the box, a bridge with a side walkway to the intermediate area of the amphitheater, and one to the stage area of the amphitheater. Following rehabilitation, the staircase railing is equipped with a wheelchair lift (Figure 6).

Area B, the central area of interest, is marked by Ion Creanga's hovel. Here, a simple layout has been adopted to enhance the beauty of the hovel itself. On the left and right side of the building, we can admire simple plant compositions with a rustic look, made up of various flower species commonly found in traditional courtyards.

This choice has added a unique charm to this area, enriching it with enticing colors and fragrances. The design was intended to create a pleasant and familiar atmosphere, transporting us back to the past of our culture and traditions. (Figures 6 and 7).

As can be seen in Figures 7 and 8 below, the use of various species of flowers creates a playful look from the variety of colors of the plants combined in a rustic style. This option included species such as *Aster novi-belgii*, which reaches a height of between 80 and 140 cm, *Leucanthemum maximum*, a flower that blooms from June to September, with a height of between 50 and 90 cm, *Phlox paniculata*, with heights of 50 and 150 cm, which was planted in groups for a more pleasing visual effect. *Anthurium majus* and *Gladiolus* sp. species were also included to add an exotic and vibrant touch.



Figure 6. Main access area A



Figure 7. Zone B - "Bojdeuca Ion Creangă" Museum

A beautiful *Acer palmatum*, also known as Japanese Maple, is included as the composition's focal point. Due to its ornamental foliage and vivid colors, its presence makes the composition attractive and elegant and creates a pleasant atmosphere for visitors (Figure 6).

Various annuals were used in the design to create an impressive color spectrum. The composition includes varieties of *Salvia farinacea*, also known as Mealy Sage, a generous selection of *Tagetes erecta*, *Impatiens walleriana*, *Begonia semperflorens*, *Salvia splendens*, and *Zinnia elegans*. With this selection of plants, we have brought a burst of color and created an attractive and lively look to the area. At the back, you can see planters with *Pelargonium peltatum* species (Figure 6).

The existing cist has been retained as a site but given a new look by choosing a rustic-looking object with modern facilities, which successfully fulfills the need for thirsty visitors or their pets to drink water.

Area C, or the amphitheater area, includes a system of wooden terraces and benches, and at the end of these are water basins that have a dual function, both as planters for flowers and as decorative elements.



Figure 8. Zone C - "Ion Creangă" Museum Amphitheatre

The open-air amphitheater becomes an exciting and versatile space for organizing various cultural and educational activities for all age groups. Around the amphitheater is an elegant perimeter planter, and at its base is an impressive flower bed, providing a visually captivating landscape. The stone amphitheater stage has been clad with a wooden floor for better use in dance and stage movement performances while giving the whole area a rustic and authentic look. This charming space is designed to create a pleasant atmosphere and facilitate social interactions, making it the perfect venue for memorable events and performances.

In Figure 8, we can see an impressive floral bed composed of various species such as *Campanula persicifolia, Hypericum* 'Hidcote', *Geranium dalmaticum, Viola cornuta, Hosta sieboldiana*, and *Hosta fortunei* 'Albomarginata'. These plants contribute to a charming and vibrant landscape. In the perimeter garden, *Petunia x hybrida* species were chosen.

Figure 9 shows that the *Chrysanthemum leucanthemum* species on either side of the water add color to the area.

The images in Figure 9 give us four views of the amphitheater area, which includes a fruit tree of the genus Malus floribunda, already present in the landscape, in the area to the left of the stage. This area blends harmoniously with a plant composition of Camellia japonica and Berberis x stenophylla. This landscape arrangement brings aesthetic balance and a diversity of textures and colors to the area. Berberis stenophylla complements the composition with its glossy leaves and varied colors. Together, these plants create a pleasant and attractive landscape, providing a relaxing atmosphere and a friendly setting for moments of rest and contemplation in this area (Draghia and Chelariu, 2011).

In Figure 9, we can see the asymmetrical arrangement of the seating areas clad with wooden stencils on two stacks of three and four steps on either side of an access alley to the entrance area of the new museum within the amphitheater. This arrangement was designed to provide a pleasant and comfortable experience for all participants as the museum guide talks to them about the life and work of the great Romanian storyteller.



Figure 9. Overview and details of Zone C - "Bojdeuca Ion Creanga" Museum amphitheater

Zone D was designed to provide a space for rest. Initially, only one main entrance was foreseen. Still, in this project, a second entrance has been proposed to facilitate direct access to this area for those living in the valley area and ensure a flow and smooth movement of visitors, especially on hectic days or events such as the Night of the Museums, when the number of visitors exceeds hundreds or even thousands of people (Figure 5).

The landscaping of this area focuses on visitor comfort, featuring wooden benches and gazebos that add a natural and rustic look. These are strategically placed, providing places to rest and shelter pleasantly and practically (Figure 10).

Wooden slabs were chosen instead of traditional materials to facilitate pedestrian circulation. The choice aims to create a friendlier and more pleasant environment, both aesthetically and in terms of user experience. Wood-framed tiles offer an enjoyable and environmentally friendly alternative to traditional solutions such as concrete or stone.

In the upper part of the area, a simple lawn was created, allowing people to sit in the shade under the *Prunus avium* species. This choice created a relaxing and pleasant space where visitors could enjoy nature (Figure 10).

Similar water pools were decided to be installed to create harmony between the upper and lower areas, adding calm and beauty to the overall landscape. On hot summer days, the waterfalls of the stepped pools in the amphitheater area and those with water jets behind the grotto provide a feeling of coolness and freshness in the air while being a visual highlight. The water games also create a relaxing and pleasant atmosphere, complementing the visitor experience (Figure 10).



Figure 10. Overview and details behind the "Bojdeuca Ion Creangă" Museum

Plant compositions

To enhance the space, vegetation has played a crucial role in fulfilling the aesthetic function. Its careful selection and strategic placement created an attractive and harmonious landscape, adding color and texture to the space (Pascu and Zlati, 2021).

To mask the fence, which acted as a hedge, plant compositions consisting of *Cornus alba*, *Cornus mas*, and *Corylus avellana purpurea* were decided. *Lavandula angustifolia* and *Hosta sp.* were used along the path (Figure 11).

To mask the area behind the fence of the neighboring property, in front of the amphitheater, a plant composition consisting of *Pyracantha coccinea, Ilex aquifolium*, Berberis *x stenophylla, Mahonia x media*, and *Juniperus squamata* was chosen. This combination was selected to create an aesthetically pleasing effect and to harmonize the area with the amphitheater's general landscape (Figure 11).

In addition to the existing vegetation in the entrance area, new plant species have been added, such as *Camellia japonica, Viburnum plicatum, Berberis thunbergii, Deutzia gracilis* (Figure 9). *Chamaecyparis pisifera* 'Filifera Aurea' will add a touch of color to the composition; its leaves have a golden hue and offer a slightly prickly appearance, adding diversity and texture.



Figure 11. Detail of perimeter plant compositions

Picea glauca 'Conica' is a slow-growing spruce species with a conical shape; its leaves are silver-green.

Juniperus horizontalis is a climbing and spreading species of juniper. Its bluish-green leaves will add variety and movement to your composition. *Juniperus horizontalis* will spread out on the ground and create a beautiful effect on the left side of the steps.

Juniperus communis is integrated into the composition to add a natural and rustic element. Its dark green leaves will provide a touch of consistency in the landscape.

This plant composition will combine different textures, colors, and shapes, creating a pleasant and harmonious landscape (Figure 12).



Figure 12. Detail of plant compositions along the main access steps

In the back part, it was decided to use *Berberis* thunbergii, Buxus sempervirens, Lavandula angustifolia, Hydrangea macrophylla, and Hosta sp. compositions. Rhus typhina, Spiraea Japonica, Forsythia x intermedia, Hydrangea macrophylla, and Thuja occidentalis (Bernardis, 2010; Bernardis, 2011; Sandu, 2012) (Figure 13).



Figure 13. Detail of vegetation composition along the slope retaining wall

Perennial or annual floral species were also included in the plant compositions, complementing the landscape and adding value. Also, in certain areas, such as the front of the box or near the amphitheater, floral carpets composed of various species were proposed to ensure a long flowering period and provide an attractive decoration. Among the floral species included in the project are *Campanula persicifolia*, *Hypericum* 'Hidcote', *Geranium dalmatic*, *Viola cornuta*, *Hosta sieboldiana*, and *Hosta fortunei* 'Albomarginata', *Tagetes erecta*, *Zinnia elegans*.

CONCLUSIONS

This work proposes a wide-ranging project to redevelop the space within the "Bojdeuca Ion Creanga" Museum in Iasi, using wood as the primary material in the transformation process. The proposed reconfiguration considers aesthetic aspects, functionality, and integration into the urban ensemble.

The use of wood in the space's design proved appropriate, providing a warm and authentic ambiance. Thus, wooden walkways were included, giving the composition a pleasant and natural look. Wood was also used to create pieces of furniture, such as pergolas, benches, and tables, to provide visitors with a comfortable place to relax and contemplate during their visit. In selecting the vegetation, consideration was given to the adaptability of the plants to the type of soil and climate specific to the area. Plants were chosen that would grow harmoniously and create a pleasant atmosphere around the museum; in the case of some existing plants that were in an advanced state of decay, the decision was taken to remove them, while others were strategically integrated into the composition to preserve the authentic elements and incorporate them into the new atmosphere created.

Through the landscape approach applied in this project, the intention was to revitalize the space in the courtyard of Ion Creanga's Bojdeuca museum and transform it into a pleasant and functional environment that would enhance the cultural heritage and offer visitors an authentic and memorable experience. This redevelopment could help attract more visitors and strengthen their connection with the history and traditions of this remarkable place.

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