REVITALIZATION AND RESTORATION OF QUEEN ELIZABETH
PALACE GARDEN – ROYAL RESIDENCE

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Abstract

The project aim is the discovery of historical identity through the cultural and functional residential garden of the Royal House of Romania. This work is necessary given the considerable reduction of historical landmarks and national cultural identity. The study shows the approach, analysis and strategy of the development project aiming to revitalize the Elisabeta Palace Garden, and the landscaping solution for the residential garden. The study of the monument as a whole involves detailed research that displays the potential landscape value of the space accompanying the royal residence in Romania and possibly its inclusion on the list of historical landscape monuments. Knowing the main aspects regarding the accounting and inventory of the elements that compose the historical garden also includes a range of information that would help the sustainable management strategy for the future. Not only the preservation and conservation but also the restoration and revitalization of the cultural heritage that was left to us is a paramount concern in the development of a cultural society. These testimonies of the past are very important milestones, necessary for understanding the value of the Romanian people. Maintaining and developing the landscape, in conjunction with the architectural values belonging to the historical monument, may lead to the future possibility of self-financing of all maintenance work required by the historical assembly. That imperative - self-financing - is present in all current studies of sustainable development and can be embedded in the marketing strategies of the monument.

Key words: Actual functionality, cultural landmarks, historical identity, historical garden, revitalization.

INTRODUCTION

Gardens belonging to historical edifices as monuments of the past are testimonies of certain developmental stages of a people’s civilization and culture, of the way in which historical, economic and social factors, scientific and technical knowledge of the time shaped certain forms of modelling the space for human life.
Knowledge, investigation and preservation or restoration of these gardens is perhaps just as important as other cultural values that are part of the heritage of a country and, in many cases, of the entire world [28].
Landscape preservation in such cases is the preservation and guardianship against destruction, maintaining the basic and original features of forms and components that have withstood time. Concerning gardens, the effect of climatic conditions on the specific buildings and especially on vegetation, coupled with the potential longevity of plant species, results, with the passing of time, in the degradation of the general landscape appearance and often leads to important losses.
The lack of topological inventory regarding vegetation and the rest of the elements composing the historical assembly require immediate action. Such an inventory should be provided very soon. All the transformations that occur in the landscape should be monitored and recorded in special documents (inventory sheets).
The study focuses on the application of a global analysis on the current landscape, identifying opportunities and defining the full potential of the whole landscape of the historical assembly.
The Royal residence was built by the architect Cornelia M. Mark [25] in 1935-1937, especially for Queen Elizabeth of Greece, born Princess of Romania; it is the smallest royal palace in Bucharest, built to serve as a private house.

Besides the Royal Family's private and public spaces reserved for events, the palace comprises administration offices, Royal Secretariat, Offices of Protocol and Press. After a global analysis of the landscape which is also accomplished by the final diagnosis, this study addresses the defining of a vision and mission leading to the best solution of landscape design that will provide permanent housing and space for cultural events organized under the auspices of the Royal House of Romania.

MATERIALS AND METHOD

An approach to historic gardens through the last international convention on cultural heritage, landscape, monuments and sites reveals their importance in the cultural heritage of a community. Thus, the Florence Charter of 1982 defines historical gardens as an architectural composition and plant showing public interest in terms of art history. This composition relates to:

- plan and different land profiles;
- vegetal masses: nature, volumes, color game, habitus, height;
- built or decorative elements;
- running or still water.

Saving historic gardens requires a differentiated inventory of their components and specialized interventions for their maintenance, conservation and restoration, as well as the need to achieve a high degree of authenticity. Authenticity refers both to design the site plan and the amount of constituents and all the plant or mineral details that compose it. Any conservation or maintenance approach therefore involves simultaneous intervention on all parties as a whole, in order to avoid altering the structure of the composition.

Protection of historic gardens considers not only its constituents but also the environment, i.e. the context of their overall existence. All changes in the surrounding physical environment threaten the ecological balance of the site. The rehabilitation measures of an endangered site are focused on the whole infrastructure (sewers, irrigation systems, roads, parking lots, fences, security devices, and so on) that can provide consistency and continuity in order to meet the needs of natural elements to biotic and protection against possible aggressive interventions.

Therefore, a measure of protection for the historic gardens is to regulate public access and festive events or exhibitions within this framework, so that it does not result in the degradation or distortion of the protected space. The public interest generated by the historic gardens should not be diminished by exaggerating conservation measures, as they are public goods, but rather can occur for the purpose of public awareness for cultural heritage, respect for nature, ownership of inherited values as elements of identity and continuity.

As an early-twentieth-century garden, the study began with an analysis on the garden art trends in the respective historical period. The Industrial Revolution and the development of the cities imposed creating gardens with increased functionality, bringing sufficient facilities that properly faced the population’s recreational needs. Along with the aesthetic and technical issues, endowments for social activity were added; at the same time, new ways of creating plantations began to be considered. In England, for example, the so-called bog-garden, rock garden and wild-garden were developed. Inventing perennial flower borders and exotic plant cultivation method contributed to the diversification of compositional solutions for gardens during that period.

An important influence was borrowed from cubist architecture, which brought new forms of geometric structures in gardens, based on symmetry or asymmetry. This led to original ways in the expression of forms, volumes and garden areas in the modern design. Garden Villa Noailles was an expression of the influence of the cubist style and was inspired by Mondrian's work [1].

The gardens designed at the beginning of the twentieth century in Romania were also
analyzed, those that marked a new stage in the development of national garden art, both creations of foreign specialists and contributions of Romanian architects. [3] The conceptual basis of the research method concerning the restoration of historical gardens lies in analyzing, quantifying and aggregating the key benchmarks of all components belonging to the historical assembly.[4]

On this basis, we analyzed the main criteria aimed at the Elisabeta Palace’s history, the natural conditions of the site, the visual analysis of the existing garden, traffic analysis, the present lighting system, furniture and vegetation analysis, all leading to the definition of a diagnosis that synthesizes the conclusions of this analysis.

Historical analysis shows the first plot boundaries that subsequently hosted the construction of the Elisabeta Palace, registered in 1927. Since then, the plot recorded no change and was integrated into the context of the National Park (Herastrau Park). There were no documents to reveal any important detail of the vegetation structure, which seems to support the hypothesis that the latter remained unchanged after the site inclusion into the National Park. The study of the historical documents from that period revealed that a number of flower and tree species were used to decorate the palace garden (**Peonia chinensis**, **Mahonia aquifolium**, **Magnolia kobus**, **Cerasus serrulata**, **Prunus bilireana**, **Lilium regale**)[26]. The study on the natural conditions of the site was focused on the relief and geographical location, climate, geomorphology, seismicity, environment, water, flora and fauna specific to the area of Bucharest (the Romanian Plain).

Visual analysis drew attention to the open spaces that lacked important focal points and deconstructed spaces based on weak plant compositions, remnants of an old aged and degraded landscape design. The space for the garden was open both physically and visually; it was limited on the site edge with high vegetation.

The Palace was projected on the northern background. The Main Alley revealed the most valuable perspective of the Palace, the left side of the garden bringing to view a deconstructed plant composition. That side was strongly planted with large trees (some of them very degraded). The space lacked focus points or valuable items that act as accents or contrasts. The construction increased the value of the garden overall, but vegetation created an amorphous space without harmonious composition.

The absence of a valuable chromatic register, structured according to the seasonal scenery, and the lack of volumetric registers were noted in the garden composition. The center of the main path was dominated by a ‘T’ shaped pool of water finished with natural stone similar to that used at the Royal Palace in Balchik. The garden was enclosed by a concrete wall, plastered, painted in white, which was a fine background for the existing plants (after regeneration) or for future landscape planting.
Traffic analysis revealed that the site was located on one of the major traffic arteries of the city (access from Kiselleff Blvd).

![Fig. 1. Visual analysis of the Royal Palace Garden [6]](image1)

The car access to the palace was controlled and allowed access only to the courtyard area. Pedestrian access was provided only by the guard sidewalk around the palace building and the paving of the central basin. There were no other traffic routes all over the garden, the traffic spreading freely over the entire surface of the garden.

![Fig. 2. Traffic and access analysis for the Royal Palace Garden [7]](image2)

Analysis of the lighting system. The lighting networks were graphically analyzed for both functional and aesthetic functioning of the building and the palace garden. Generally, it can be said that the garden had no adequate lighting system that could highlight the entire arrangement.

![Fig. 3. Lighting system analysis of the Royal Palace Garden [8]](image3)

The analysis of furniture and decorative items highlighted the presence of valuable objects (stone benches, griffins, mobile decorative pieces), which unfortunately were not placed properly to enhance the aesthetic value of the assembly.

![Fig. 4. Analysis of furniture and decorative items for the Royal Palace Garden [9]](image4)

Vegetation analysis. The whole garden displayed old and deconstructed vegetation with a strong deficiency at the chromatic and volumetric level. The lack of plant decoration correlated with the seasons was still a weak point of the garden. The lack of middle sized vegetation (shrubs) and small vegetation (flower and herbaceous plants) was noticed. Background vegetation was partially structured onto the specific lowland area with dominant broadleaf vegetation. After the analysis on vegetation, it was concluded that the existing tree vegetation dated from the same period with that planted in the Herastrau Park (1930-1935) [2]. There were no spectacular plant species distinguished in terms of colour, the only
advantage of the arrangement being found in the differences of textures in the leaf sheath. Seen as a whole, vegetation remained static during all seasons.

In addition to vegetation analysis, an inventory of the plant heritage of the garden was performed, in which each item was analyzed individually by noting some dendrometric parts: trunk diameter, height of crown insertion, overall phytosanitary stability, cutting necessity and the recommended cutting type, aesthetic considerations related to the decorative value of the specimens analyzed. Based on this detailed inventory, there were identified plant items to be removed for various reasons (ageing, improper cutting, physiological degradation leading to the degradation of the aesthetic quality or general state of health).

Table 1. Example of sheet recording the tree vegetation within the Elisabeta Palace [12]

The comprehensive analysis performed at the site could reveal a diagnosis and an intervention strategy that led to the completion of the garden landscaping solution for the Palace according to the current usage requirements of this space.

RESULTS AND DISCUSSIONS

The diagnosis and conclusions of the analysis identified the strengths and weaknesses of the garden studied.

Strengths:
- the existence of a certain historical value given by the presence of the architectural assembly;
- structured vegetation of dominant leafy plants specific to the plain area;
- background provided by existing vegetation that can be partially structured;
- materials used to make authentic pavements in accordance with the harmonious atmosphere of the architecture.
- fluent and functional traffic.

Weaknesses:
- lack of structured vegetal colour registry by season;
- perspectives are often uninteresting, even from various important points (windows, main entrances, terraces);
- lack of valuable elements to be focused in the arrangement;
- the arboreal register dominated by large aged and damaged trees;
- improper treatment of valuable plant accents;
- weak and unaesthetic lighting system, with no contribution to the enhancement of the arrangement;
- lack of pedestrian circulation limiting garden functionality;
- valuable decorations that were not truly put into value;
- present storage space that created a visual conflict with the elements in the arrangement.

These conclusions formed the basis of the general approach, namely: the transformation of the Elisabeta Palace garden into a symbol space to complete and enhance the value of this Royal domain.

The mission of honour at the Elisabeta Palace garden planning is to organize a space to meet the current users’ needs, offering diverse areas and atmospheres, interesting perspective and a spectacular vegetation scenery throughout the course of the year which, with diverse functions, leads to a wide use of the garden.

The strategy approach proposes the division of the garden into major areas of intervention:
- rehabilitation area which includes the geometric garden;
- restructuring of space that includes the garden located in the northern part of the assembly;
- area of innovation that includes the southern part of the garden;
- premise gardens located in the palace.

In terms of general arrangement, the strategy proposes to address functions depending on three envisaged areas of use:
1. The Winter Garden which will include the area near the palace, accessible especially during the cold season, and which will be dominated by resinous species.
2. The Summer Garden which will include more private area of arrangement and will be structured to provide a great setting in summer-autumn period using trees, shrubs and herbaceous plants. This area will be the strength of the arrangement and will focus on a harmonious combination of textures, colours and fragrances.

3. The Middle Garden will ensure a smooth transition between the Winter and the Summer Garden. The arrangement will be based on species to bloom before the birth of the leaves, providing a spectacular setting especially during the spring.

In order to achieve the proposed solution, landscapes will be created that will be
successively and gradually perceived by the users through the division of the space by different shapes and heights of plantations.

Plantations will be used to model relaxation areas; they would also mask discordant elements of landscape and unpleasant external views. In the same way, they will induce some perspective directions to the valuable points of the new design. The transition from one space to another will be balanced and correlated with the proposed circulation.

Considering that the land may be seen from the outside, contiguous plantations for visual barriers will be provided sequentially along the perimeter; however, certain areas will create plantations with diverse opacity degrees. The garden landscaping solution of the Royal Palace is conceived in freestyle landscape design with winding paths and vegetation naturally ordered that inspires a romantic atmosphere. In the whole garden, an area of shallow water will be created and incorporated harmoniously; besides creating a refreshing atmosphere in the relaxation area, it will also to create a mirror effect for both plant and the elements. In addition, this space can temporarily accommodate during some special event, a floating public stage adapted to the characteristics of the public event.

Traffic in the garden will be designed to allow browsing and gradual discovery of the space, and be perceived as discreetly integrated into the overall landscape. Paths are made of natural stone tiles with grassed grouts placed on one line. The route is sinuous and allows access to each area of interest to the garden. Rest areas will be located near the main alley, access to
trails being provided. They will provide insights spectacular arrangement open to the elements. One of the rest areas will be set up on the island of proposed water related piece, emphasizing the romantic character of the garden. The proposed garden furniture will have a permanent character in some areas and an occasional one in others. Permanent furniture will be made of simple pieces (usually stone slabs and wood); occasional furniture will complement the furniture needs and will have a delicate, light and mobile structure.

![Photo 4. Proposed furniture – relaxing area](image)

Existing art pieces such as existing reliefs on the facade of the building but also from the summer garden will be emphasized by being framed symmetricaly by columnar vegetation.

![Photo 5. Virtual image from the Palace balcony to the Winter Garden](image)

Lighting will have primarily a functional role, providing perimeter security lighting; nevertheless, aesthetic lighting is taken in consideration in order to highlight the elements of composition, but it must not disrupt the normal life cycle of the plants.

Fixtures will be decorative in themselves, but will retain discretion in relation to the other elements of the arrangement.

The garden has been designed considering easy maintenance works and sustainable development. Thus, a management plan has been taken into account, according to which all spatial landscape can be maintained within a system of sustainable development.

![Photo 6. Architectural lighting](image)

**CONCLUSIONS**

The gardens, as a product of human activity, can be listed as historical monuments once their aesthetic and memorial values has been validated and they have been included on the list of Historical Monuments under the laws in force. To be considered a work of art, garden subjective recognition must recreate an artistic sensation, to express beauty in itself like a painting or a picture, to allow "free play of imagination in contemplation" [23]. Work on the artwork depends on the recognition of its status, "a work of art, no matter how old or classic it is, actually exists and not just as a potential work of art, they live in a particular individualized experience." [24].

If gardens have no historical documentation stating the monuments original image before restoration by data interpretation with similar monuments from the same historical period, we can deduce the eclectic or innovative approach to restoration. In this case, it keeps valuable historical times of the arrangement and can introduce new functions in accordance with the current space usage needs.

Newly introduced functions must take into account the original atmosphere of the monument, without major alteration of the
picture. The analysis of historical gardens criteria is used to develop a diagnostic and build a restoration plan that revive the reconstitution of the authenticity of a work of art: "Restoration, as updated artwork included is just the filtering and accumulation of data, it is therefore natural to identify two phases: the first reconstruction of the text of the work, the second intervention of matter that make up the work" [5].

The Recovery and Restoration Project for Elisabeta Palace Gardens has been conducted over a period of six months and has made all the necessary tests to elaborate one rehabilitation project, restoration and revitalization of the historic gardens. This approach can be an important step to achieve a restoration guide for resolving the problem of these historic gardens. Given that it is a permanent inhabited residence, the functions related to the best use of space, coupled with the current needs of the Royal House of Romania have been very seriously considered. Thus, the project has solved the needs of space for relaxation and rest by easily using the spaces near the palace, spaces with different atmospheres for public events of "Garden Party". The decision to introduce water as a very important element in landscape arrangement has been made with discernment, following garden analyses similar to the European royal residences housing scheme.

Fig. 13. Overview of the garden in the future [22]

The result reached in this study opens a niche for further research and creates a basis for addressing fundamental theoretical research of historical landscape monuments. This paper is aimed to be not only research but also an action to induce or recover respect for history and national heritage values, without which true restoration cannot take place.

REFERENCES

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