Abstract: Spa garden in Daruvar ‘Julius’s Park’ is the oldest spa garden in continental Croatia. The counts Jankovich and their successors created the garden during the 18th and 20th century. The garden resumed its nowadays form and surface in the time of count Julius Jankovich in the mid-19th century and it was named after him. The garden is protected as a cultural heritage. The garden’s renovation is seen as an urban, architectural and landscape unity and it attempts to affirm the missing and neglected parts of the garden, to provide technological and municipal space modernization and to make a pleasant urban garden ambiance with new facilities and high space arrangement qualities, contributing to the economic development of the local community.

Keywords: Daruvar, spa garden, historical gardens, garden reconstruction

1. INTRODUCTION

Daruvar is a city in Northern Croatia, western Slavonia. It is famous for its spa garden and the castle of the noble family Janković/Jankovich/Jankovics of Daruvar. It was the seat of the Illyrian tribes of Iasi in the pre-Roman times and the baths Aquae Balissae were there in the Roman era. Three villages existed in the territory of present-day Daruvar in the first half of the 15th century. They were under Turkish authority from 1453 to 1687. Today’s Daruvar started its development at the beginning of the 18th century. The Viennese court founded the feudal possession in 1702. Antun Jankovich of Daruvar (1729-1789) bought the feudal possession in 1763 and built a manor with gardens from 1771 to 1777. After building the manor he named it Daruvar (Hungarian - Daru= Crane) after a crane that can be seen in the family Jankovich’s coat of arms. The name of the manor was later transferred to the village and confirmed by the Queen Maria Theresa in 1772. Daruvar became an important economic and commercial center at the turn of the 19th to 20th century, due to the excellent traffic connections and railway to Virovitica (Croatia) and Barcs (Hungary).
The beginning and development of spa in Daruvar was connected to the noble family of counts Jankovich in the time period from the 18th to the 20th century. Count Antun Jankovich built the first modest baths with swimming pools at the foot of the manor, a basis for the future spa and garden complex. The complex obtained its today’s form and surface during the time of Julius Jankovich (1820-1904) in the middle of the 19th century and carries his name even today, Julius’s Park. The spa garden’s renovation started around 1860 in the valley of the stream Toplica, when in the Southern part of the garden the majority of bathing buildings were built. [1] The garden is preserved in the most parts today, but it lacks many details characteristic for historicist park modeling. The garden was at its peak in the late 19th and early 20th century and it was a center of the city’s cultural and social life, what was noted down in the tourist brochures of the early 20th century. [2]

![Figure 1. Panorama of the spa garden, 2012](image)

The goal of the article is to demonstrate the methodological approach to the historical garden’s renewal as shown in the case of the spa garden in Daruvar. Through affirmation of historical parks one aims to encourage the planning and development of modern gardens. Together with the historical gardens they will create the urban structure and image of the city and contribute to the improvement of physical, cultural and environmental values of the city. The idea is to draw attention to the rich garden heritage, but also to the landscape’s ability to influence the tourist-economic development, simultaneously reflecting the social and cultural recovery of the city. Affirmation and presentation of the park’s historical values include Daruvar’s thermal springs [3] and contribute to the preservation of the space identity and urban culture. This is especially important for Daruvar, city known for the multi-cultural dialogue between the Croats and the Czechs, though once under a strong Hungarian influence.

2. THE GARDEN'S RENEWAL PROJECT

The project of the spa garden’s renewal in Daruvar is one of the most recent projects of historical gardens’ reconstruction in Croatia, based on contemporary professional and scientific knowledge of historical gardens’ renewal and conservation methodology.

The aim of the project was to determine the current condition of the park related to preservation of all vegetative and architectural parts and renewal of characteristic historical landscape composition. The program of reconstruction was offered, guidelines were drawn up for the further development of the project and preliminary designs were set for the further elaboration in the project’s documentation. Spa gardens and baths were modeled as all European baths, mimicking the style and method of construction, conveying the atmosphere and lifestyle of the baths. The intention is to promote the former values and thermal baths culture and to revive the spa networks in Croatia and Central Europe more easily.
The goals, intention and postulates were set in the introductory part of the project. After the analysis of the pre-existing conditions and landscape elements, the historical contents were carefully researched and the historical facts established. In order to determine the starting and reference points of renewal, the historical garden changes were inquired and compared, the methods of renewal were defined and the historical matrix for the garden’s renovation determined. It was necessary to check the ability of historical matrix to blend into the current situation, but also the possibility for the future constructions in the garden area, important for the development of spa activities in Daruvar.

The basic starting points of the spa garden’s renewal concept are: the indivisibility of garden’s architecture from the architecture and urbanism; perception of space through urban-architectural-landscape values; realizing garden as a city-like element of the city’s image and structure.

3. CHARACTERISTICS OF GARDEN

Continental Croatia has six spa centers with thermal water springs and decorated gardens. Spa garden in Daruvar was unique in its size and richness of facilities, and the first and oldest spa garden in continental Croatia. The arrangement of the thermal spring complex and garden started in 1762. The garden was among the most famous spa gardens in Austrian-Hungarian Monarchy in the late 19th and early 20th century. The concept and the size of the park haven’t changed since. [4]

The park was constructed in several stages. With the development of tourism, the new bath buildings were built and the garden slowly expanded at the same time.
The oldest graphic representation of the park was made in the cadastral map in 1861. The garden was owned by Julius Jankovich and experienced its greatest flourish at that time. The bathing area covered around 650 m² and the garden even 6.15 acres. Some of the buildings vanished as well as the numerous facilities, but one can still feel the historical spirit of the landscape. [5]

Two spatial-compositional and functional units are perceived on the garden’s historical maps from 1861 and 1896— the Southern part with the spa buildings and the Northern with the landscape without buildings. Hornbeam avenues bordered the Northern part of the garden with the dominating lawn, 5.5 meters wide, with semicircular rest areas.

Since the garden was not an expression of one style and idea, but developed in several phases, it contains diverse characteristics and styles. Baroque features are recognized in the hornbeam avenues of the garden’s Northern part, initially cut as trimmed walls, and the neo-baroque in parterre flower-gardens in the Southern part of the park. The park also has features of historicism and late romanticism. Hornbeam avenues and some old trees are preserved even today. Boxwood decorations and flower gardens originate mainly from the first half of the 20th century. There are a lot of tree species in the garden today, many of them were planted in the middle and in the second half of the 20th century.

The older trees disappeared gradually due to the age and weather conditions. Mostly native tree species grow in the garden, but also exotic species in accordance with the 19th century trends. [6]

The Southern part of the garden is the most developed and richest in its garden form because

Figure 3. Ornamental parterre of spa garden, the atmosphere in the garden 1914, source: Croatian State Archives
historical buildings (numerous baths and villas) intertwine with parterres and plants. Due to the high concentration of cultural and historical values of monumental significance, the Southern part was placed under a high degree of conservational protection (A protection zone). Some historical buildings and structures disappeared, and over time some were given a new look or were replaced. Almost all historical buildings cry out for renovation and decoration. There is a modern Daruvar Spa complex in the Northern part of garden today, with a hotel Thermal built in 1980 (B protection zones).

4. METHODS

The starting point of the garden’s renewal is based on three theses: the preservation of landscape-architecture-urban complex as indivisible unity, differentiation of landscape architecture from horticulture and appreciation of historical garden’s characteristics as heritage, preserving the identity of the space and urban culture.

Five cadastral maps of the garden (from the 1861, 1896 and 1954) were available. With these maps the historical appearance of the garden, important for reconstruction, could be determined. Numerous old photographs and postcards (mostly from 1920 and 1930) were also available.

The method of garden’s renewal is based on the study of archival records (maps, drawings, photographs, postcards, old published texts), on the analysis of the current condition and determination of the methodological starting and reference points for the garden’s reconstruction. [7]

It is pointed out to the limitations of renewal, garden layout changes are presented, the historical matrix for the reconstruction established and methods for park’s restoration discussed. Since there was no original plan of the garden, but only historical cadastral maps, they were used as relevance for the determination of the original historical situation and subsequent changes.

Several methods are used - conservation, restoration and reconstruction, but there will be new construction on the edges of the park in order to adjust the spa to the modern needs.

Figure 4. Cadastral map, 1861.
The spa garden went through architectural and vegetation transformations during its existence, so it is not possible or not even proper to speak of returning it to its original state. Restoration tends to become one of the stages of the park’s development, showing at the best way the historical image and the ambiance of the park.

The research found that the method of conservation will preserve the parts of hornbeam avenues, old individual trees or groups of trees, which belong to the original idea of the historical park, as well as all other details (building and plant), expressing more closely the historical matrix of the park. For the original historic promenades, the methods of conservation will also be applied in terms of preserving the historical routes. It is possible to rebuild the ruined buildings of the 1990s in the park with the restoration methods, also the historical paths which disappeared over time, garden equipment (benches, chairs, lights, etc.), some flower plants, as well as all other details (building and plant) that may be renewed with restoration methods based on historical documents, particularly old photographs. Vanished trees will be renewed with the reconstruction method in the garden, also some flower gardens, rest areas in the hornbeam avenues and in other locations in the park.

5. HISTORICAL GARDEN MATRIX

A cadastral map from 1861 was considered to be a historical matrix, therefore the starting point for reconstruction. It was created by a careful tracing of gardens’ changes in historical cadastral maps. Three historical cadastral maps (from 1861, 1896, 1954) were put to overlap each other, as well as the maps of the current situation, in order to compare the historical layouts and to identify similarities and differences. The greatest attention when researching the historical matrix was focused on historical paths, promenades and flower gardens.
In addition to the layout image, the garden interior and, to the possible extent, the historical city park atmosphere will be renewed. The most important layer in the park is the one from 1861, or from 1896, because the differences of the layouts are insignificant.

![Figure 6. The layout matrix](image)

Renovation of the historical garden will reconstruct the historical layout of the park, the missing or damaged parts of the plants and buildings in the garden and create a close atmosphere of the former image, when at the turn of the 19th and 20th century the garden was at the peak of its appearance and use.

6. RENEWAL PROBLEMS

Renewal of historical gardens, buildings in the gardens, garden buildings and contents, along with utility services and technical infrastructure is a demanding and comprehensive job, requiring scientific systematization, specialized expertise, good organization and coordination of preparatory and performance tasks and a multi-year performance. All this requires a generous amount and source of money. Renovation of the garden does not only mean the restoration of garden’s plant components, but also the restoration of all the building, architectural and design elements that make up the garden as a connected and indivisible urban-architectural-garden unity.

There were not any major difficulties in investigation of the conceptual phase. Old historical maps, postcards and photos gave a good insight into the original appearance. We know how main flower plantation looked like at certain times, benches, fences, buildings’ facades or the parterres. Promenades, paths and trails are visible in historical maps and also recognized in the present situation.

What we do not know and we can not conclude from historical sources are plant species. Due to the persistent lack of maintenance and weather conditions, the plant material in the park was significantly ruined. Since there is no original plan or list of trees that were originally planted, while monitoring the existing condition, the old trees were investigated in situ, and the selection of the new types of trees was carried out with the comparative method, following the example of other similar gardens from the same time period.

The greatest difficulties in the renewal of the garden were created by the archae-ological findings in the Southern part of the garden and utility installations.
The spa garden is archeologically protected. The architectural elements of a Roman building were found in 1967, and there is a presumption of the Roman thermal springs existing once at that area. There has not been any systematic research, so this has not been confirmed yet. [8]

There are two systems of utility installations in the garden: urban public system of municipal infrastructure (electric energy supply, gas supply, water supply, drainage), also used for the spa garden needs and the utility installations exclusively used for the purposes of the garden. Various installation systems go through the garden in all directions and are mutually interconnected. Although hidden from the viewer’s eyes, the underground utility installations will aggravate the construction of the garden, as it will somewhere implicate the design solution.

There is an obvious concern about the problem of present maintenance and arrangement of the garden in terms of horticultural knowledge. Unfortunately, we are witnesses to the extinction of excellent gardening skills and the lack of former artistic gardeners, making it difficult to maintain gardens, especially decorated flower parterres where the gardening creativity is the most important.

7. RESULTS

The layout matrix of the garden and garden composition are the result of the research and the main reference for the garden’s renewal. (Fig 1, Fig 2) They are a basis for the making of further project’s documentation. The problems of historical change and renewal were identified, which is a valuable contribution to the applied methods of renewal and preservation of cultural heritage.

The idea of garden’s renewal comes from the appreciation for the renewal’s methodology of historical landscape architecture, inherited values of the area, legal constraints and existing conditions, but also from the needs for adaptation to modern requirements.

It is not possible to renew the historical appearance of the garden completely, or to reconstruct, because many details are not known, and there have been some changes compared to the previous state. Where this was possible and realistic, the historical layer was returned and adapted to the existing situation.

Due to the impossibility of perfect reconstruction, it is necessary to adjust and adapt all uses and buildings to the garden, and vice versa – it is necessary to adapt the garden to the contemporary time and to the real purposes of the park. The goal is to achieve harmony of the opposites, but also their mutual understanding and respect.

The historical ambiance was partially restored with the restoration of historical promenades and paths. The two missing historical areas will be reconstructed – the lawn in the central part of the garden and a tangle of winding trails south of the lawn. Historical promenades and paths were adjusted to the present-day conditions, but they retained the former direction, form and concept. Tree avenues are the only original garden factor today in the park, but without the historical semicircular rest areas (seating niches). Rest areas will be reconstructed on the basis of historical sources and information about their position and size, but not in the Northern part of the garden where that is not possible now because of the hotel building. The garden composition is being reconstructed, what is important for the reconstruction of garden interiors.
which recreate the former garden atmosphere and the character of the area. This mainly refers to the restoration of lawns, groves, flower plantations, the axis of composition and perspective.

Figure 7. Landscape composition – garden renewal postulate
8. DISCUSSION

Restoration of promenades, paths and trails is of particular importance for the conservation and restoration of the garden’s historical image. Because of the significant changes in the garden, it was not possible to restore all historical promenades and trails despite the fact that we have had the historical information about their location and appearance.

Regeneration of plants in romantic-historicist style implies the protection of existing trees, but above all those that belong or fit to the original historical composition of the garden and the reconstruction/restoration of damaged plant parts where that is possible. The purpose is to create at least a similar atmosphere to its former appearance.

The contemporary topic in historical area is solved in a way that a modern approach and expression fulfill the historic, or interpret it. All materials and forms will be contemporary, but their solutions and selection will be acceptable to the historical context. Where possible, the former appearance will be followed, and where not due to non existing historical information, a contemporary interpretation of history will be done. Innovative technology solutions, e.g. a system of sustainable environmental watering (water recycling) will enhance the garden and allow easier maintenance and better garden appearance.

The renewal of the garden, bath buildings and planned new facilities will contribute to the quality and offer of the whole spa. Expanded offer, diversity of contents and a unique blend of modern and historical thermal spring baths will distinguish Daruvar on the European spa map. Garden renewal revitalizes the entire spa, and renovated spa provides tourist and economic development of the city. This approach ensures sustainability, preservation and revitalization of cultural property (historical area), reminding us of the past time when the spa was at its best in appearance and social importance at the turn of the 19th to 20th century in the Austrian-Hungarian Monarchy, which Croatia was a part of.

9. CONCLUSION

In the history of landscape architecture, older gardens attached to the buildings are more common rather than independent garden spaces. Though independent gardens had appeared before, they were built more frequently from the mid-19th century, when in almost all European and Croatian towns the public city gardens and promenades were established, and in health resorts spa gardens were created. Julius’s garden in Daruvar is an example of the spa garden, characterized by interweaving of garden spaces and buildings, which are functionally and formally linked, coordinated and indivisible. The garden has the role of the public square and promenade (garden square) and the enlargement of buildings which are the urban public facilities complementing the garden. This combination of landscape architecture and architecture makes an urban composition important for the urban structure and image of the place. Spa garden with its numerous buildings and contents has a city-like force; it is a space of sociability - vacations, entertainment, recreation and relaxation, but also of healing. Those were the places where you should see others, but also be seen.

The research presented a current situation in terms of all structural parts of the garden and all available historical material, determining the historical matrix and changes. The starting and reference points for the garden’s reconstruction were based on the research, thus defining the historical matrix for the garden’s renewal.
The work examines the inseparable urban-architectural-garden unity of historical events and current situation, and it also presents an idea/concept and methods of garden and the whole spa complex renewal. At the same time the space is observed through conservation, architectural, urban and economic development. Modern sustainable energy technologies are used, but the functional in usage and rational in maintenance are not forgotten. Methods of garden and spa complex renewal can serve as a model for the reconstruction and revitalization of similar areas with strong cultural and historical characteristics.

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[2] There is a magnificent spa garden with beautiful hornbeam trees and pine-wood plantations on the 20 acres of surface. The superb music performs twice every day and there are shadowy, tree avenues for walking in the park and groomed trails through Julius’s wood...
Daruvar - mineral and mud baths, Budapest, Atheneaum, 1914

[3] Daruvar’s thermal springs are a special hospital for medical rehabilitation with the hotel Thermal built in 1980, a coordinator of the development of health tourism, recreation and Daruvar’s tourist offer. A hospital ward was opened in 1960, and a health resort became a Hospital for gynecological diseases treatment and medical rehabilitation. Simultaneously with the hotel, a spa complex in the west of the hotel and the sports and recreational center were built.
Conservation basis of Daruvar’s spa garden - Julius Park, Public Institution for the Management of Protected Natural Values, Zagreb, 2011.


[5] The inn and some other buildings with unknown contents disappeared. There are no longer any buildings of Siegenthal’s Bath or two buildings of Mary’s Bath. The Swiss house was built next to the western entrance of the park around 1860 (also called Villa Maria) and intended for the guests’ accommodation. A new building was constructed at the eastern edge of the park - Arcadia, probably built at the same time as the Swiss house, also designed for guests with rooms for rent upstairs. A wooden octagonal music pavilion was built near the restaurant at the same time. Octagonal mud baths were built in 1909 at the site of the demolished Ana’s Bath and Shlammbad - fenced swimming pool from the time of Isidor Jankovic. John’s Bath (built between the 1810-1818) were a building with octagonal prism (drum) on the roof, what meant that there was a swimming pool under the roof. Antun’s Bath built in 1762 and also the oldest building in the park.

Daruvar spa garden, Zagreb, Tipografija, 1929

[6] Spa garden is characterized by its spaciousness, clean roads, beautiful and long lines of trees, numerous benches and beautiful pinewood plantations.

[7] Methodological approach to the reconstruction of the park is based on two charters: Charter ICOMOSIFLA on historic gardens (known in the literature under the name Florence Charter) and Italian Charter of historical gardens, both from the 1981. They rely on the Venice Charter from 1964, which refers to the restoration of architectural/building monuments in the spirit of active protection of architectural heritage.

[8] SCHEJBAL B., Daruvar spa garden as an archaeological site and public space, manuscript, 2010

[9] A representative public-thermal-iconic space was located in the lower part next to the thermal springs. The river Toplice separates it from the city center, where another public space from Roman times was located -a forum with the temple of Jupiter.


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This research is a part of the scientific project Heritage Urbanism - Urban and Spatial Planning Models for Revival and Enhancement of Cultural Heritage (2032) financed by Croatian Science Foundation, which is being carried out at the Faculty of Architecture, University of Zagreb, under the project leadership of prof.dr.sc. Mladen Obad Šćitaroci.

ILLUSTRATIONS
2. View on the Swiss House and Antun’s Bath, around 1930, source: Šćitaroci collection
3. Ornamental parterre of spa garden, the atmosphere in the garden 1914, source: Croatian State Archives
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