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**Research Article** 

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# **Environmental Design Art in Seljuks**

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Abstract The Seljuks developed a unique artistic understanding that was influenced by both eastern and western culture. Besides, Seljuk gardens were more modest in comparison to Islamic gardens. Seljuk civilizations built palaces, madrasahs, mosques, inns, baths, bridges, bents, and gardens in the monumental perspective of civilization. In particular, the garden art (=landscape) they put forth in environmental design has not yet been fully discovered. Landscape arts of the Seljuks profoundly influenced the artistic understandings of states such as Ottoman, France, and England respectively.

Keywords Garden of Seljuk, environmental design, urban architecture, landscape

### 1. Introduction

Following the arrival of Turks in Anatolia, the presence of constructions with unique architectural identity, such as mosques, madrasahs, caravanserais, pavilions, palaces, tombs, and bridges, rapidly increased in ancient Anatolian cities. These characteristic and emblematic constructions on a wide geographical area, some examples of which are preserved to date, belong to the Seljuk and Ottoman civilizations and reflect the original social characteristics of their period. When the cities in Seljuk time are evaluated in terms of "open city" and "closed city" models; it is stated that these cities were built with "closed city" model because of being surrounded by city walls and having a spatial development in this direction [1]. In the same period, as the European cities were also surrounded by city walls, new neighborhoods (=suburbs) were formed beside the city walls due to the increase of the population of the city. A similar situation started in the mid-thirteenth century with the development of trade in the Seljuk cities [2].

The Seljuks formed a new understanding of art by kneading the cultural richness they had obtained from Central Asia with the art of Anatolia, and through their existing pre-Islamic and post-Islamic accumulation, and applied it successfully. Therefore; different beliefs, regions, and languages enriched the Seljuk civilization in all aspects of social life. The artistic understanding of the Seljuk civilization acquired a universal identity through the interpretation of the eastern and western civilizations.

It is stated that the culture, which influenced the formation of all fine arts and architectural works, contributed the garden art of the Turks [3]. As a matter of fact, the most valuable scholars from different geographies came to settle in Konya, the capital city of Anatolian Seljuks, thus, the richest cultural accumulation of the era with different ethnic, religious, and social structures emerged. This cultural richness in the capital city of Seljuks shaped environmental design as well as in all other areas of art.

### 2. Urban Design in Seljuks

In the silhouette of the Seljuk cities, constructions such as palaces, mosques, and complexes (külliye) are significant. Stones and bricks were used in these constructions, which have decorative crown gates, squares, and inner courtyards with simple-looking, prismatic, geometric, and floral ornaments, and they reflect the urban

aesthetic sense of the period. The squares, which are places of gathering in the commercial and social life of the city, however, have a distinctive feature. These squares are significant places in terms of the social life of the city and planned at the intersection of all roads [4].

Beside the monumental constructions, the water structures and green spaces are also undoubtedly important in Seljuk urban architecture. Unfortunately, the arrangements made regarding the green areas could not reach the present day originally. Seljuk's understanding of urban architecture is a multifaceted synthesis, not only blending the characteristics of eastern-western civilization but also using the structural materials of ancient Greek/Roman civilizations, and placing the symbols of traditional nomadic cultures. Furthermore, the careful use of reliefs, motifs, and devshirmeh materials that appeared in the Seljuk constructions proves that western art was also preserved through Roman-Byzantine structures. Indeed, if devshirmeh stones were not used in the new constructions of the period, perhaps they would also disappear. The devshirmeh materials mostly used in the Seljuk city architecture and seen in religious buildings are the antique columns, column headings, and bases. There is no common characteristic of devshirmeh materials in terms of period, typology, and style. Another conspicuous and prioritized detail of the Seljuks' urban architectural constructions are the crown gates. The symbolic characteristics, embroidered motifs, and geometric harmony of the crown gate, are both captivating and profoundly respected. These crown gates were used not only at madrasahs or religious buildings but also at the entrance of recreational areas such as "sultan gardens". Especially the gardens with crown gates were designed with a considerably different approach compared to contemporary designs and old artistic designs used in formerly built gardens. As is known, the word garden originates from Persian language and it means "small vineyard". Respect for nature, natural form and neatness in the traditional Turkish gardens, are evident in garden designs as well [5, 6].

It is seen that the topography of the garden was absolutely noted in the design of the Sultan gardens. Indeed, the downward slopes of the natural landscapes where terraces were built, were likely to be formed by stone masonry and retaining walls. It is stated that the stairs were narrow compared to the present day and the roads were stone-paved, pebbled or cobbled and separated from the grass area by a border. Moreover, the roads were built at a higher elevation level against floods and mostly had water grooves for the rainwater [6]. It is also stated that the edges of roads, pools, and terraces were often surrounded by railings made of iron, stone, or marble [7]. As a matter of fact, the terraces in the natural landscapes that we see around the ancient roads of Seljuk today, are the continuation of these ancient terraces.



### Figure 1. Cihanbaggarden design[8].

It is seen that water and water systems were valued differently in the Seljuk urban design. The irrigation channels were generally straight with trees planted on both sides. Social facilities were also included at the central points. It is also stated that there were sitting and resting areas in the attractive and suitable points of the gardens and that these areas could vary from a simple stone sofa to a pergola, throne, or even an eye-catching pavilion [7].Besides, these places were generally administrative areas as well. Tarhan notes that there can be a pavilion or

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a pergola surrounded by pools in the center of the garden and that this type of plan emerged through the influence of Islamic civilization and was called "*Cihanbag*" (Fig. 1)[8].

The Seljuk gardens were surrounded by high walls. These high walls are thought to be built both as a means of medieval age and for the protection of agricultural lands and domestic animals. In the Seljuks, following the sultan garden, another important kind of garden was the "fruit (= agricultural) gardens and vineyards". Pools, arbors, arcs, stone walls, and pergolas broadly used in Seljuk gardens were also used extensively in Ottoman garden art and they inherited to the present. Unfortunately, no original example of the Seljuk garden reached the present day. The use of extrinsic plant species and the application of asymmetric designs in today's landscape designs do not comply with traditional garden art. In the garden art of the Seljuks, both informal and formal design techniques were applied and very little intervention was made in the general appearance of nature. It manifests itself in all designs that are nature was highly respected. Also, Tarhan stated that the most important feature of the traditional Turkish garden is the naturalness and that there is no definite center line in the entire garden [8]. Tarhan noted that axle-based plan characteristic was often seen in small-scale gardens and around the pools or artifacts. He also noted that this formal structure got softer in the rest of the garden and became completely informal. Seljuqs have paid attention to when making a new symmetric and geometric harmony garden design, and particularly restricted area using hedge plants with floral borders. The style used brings to mind that French baroque landscape art was inspired by the Seljuk garden art. It is also possible to say that the origin of the scents gardens, which are popular again today, was the rose gardens of the Seljuks. As a matter of fact, the Seljuk sultans specially established rose gardens and kept them in a prime position within the sultan gardens. In historical records, it is stated that there was a rose garden of Seljuk palace in the Mevlana (Rumi) tomb museum area located in Konya and that it was presented by Sultan Alaeddin Keykubad (Kayqubad I) to Mevlana's father Sultanü'l Ulema Bahaeddin Veled.

It is understood that the Seljuk gardens were designed in a way allowing social activities in general and that the spaces were actively used. Particular attention was paid to the fact that the plant species used in the gardens give a yield and have visual characteristics such as color and odor. Additionally, fruit trees were used abundantly in order to preserve the existing wildlife that was important for hunting and to obtain yields. Avci noted that Turkish gardens are characterized by functionality, being a living space, and plain simplicity[7].

KatipÇelebi stated that "The Seljuk Sultan Alaeddin Keykubad directed the water coming down the hills of Konya and passing through the gardens to the city, to a reservoir, and thus, contributed to the formations of the orchards and gardens". As a matter of fact, Meram stream coming from Altinapa in Konya followed the old route and gave life to the agricultural land. Back in the days, Evliya Çelebi stated that all the creeks and rivers were born from the mountains, flowing delicately, met at the Alaeddin Hill where the Seljuk sultans were located and that there was a small lake on the east and north sides of this hill.

Gardens had a privilege in important Seljuk cities such as Konya, Erzurum, Sivas, Kayseri, Aksaray, Niğde and Alanya. The most important of these gardens were the "Sultan Gardens" mentioned as "hortum (= hortus) viridarium regium" in historical resources in Latin. The gardens established by the Seljuks belonged to the Sultans. The rarest and most significant example of Seljuk garden art is the Kubadabad palace and gardens, only the ruins of which could reach the present day. Kubadabad, which was founded on the edge of Beysehir lakein 1227, is the first example of the holistic planning of Seljuk city architecture with natural landscape. Ibn Bibi depicted Kubadabad with the following words: "The Sultan went from the capital (Konya) to the Akrinas region (Beysehir Lake) on horseback. He saw such a place that if Ridvan (the gardener of heaven) had come here, he would think the gardens were part of the heaven and bit his fingers with amazement". This statement of Ibn Bibi strengthens the idea that the object taken as an example was the "garden of heaven". As a matter of fact, the garden of heaven is characterized by water, fruit, greenery, serenity, and peacefulness and it is thought that this understanding gained significance in Seljuk gardens. Thus, the creation of the garden of heaven in this world, in other words, the desire to have a secular heaven, came to the forefront. Although the common goal was to design a garden of heaven promised in the Qur'an, full of all kinds of unique fruits, decorated with various flowers, and where rivers cascaded down, the artistic interpretations of the Anatolian Seljuks, who had adopted sedentary life after nomadism, were particular and unique [9].

The Kubadabad Palace (palace city), built on the western shores of the Beysehir lake, consists of a group of rooms surrounding a rectangular courtyard (Fig.2). The palace consists of two parts, and entry is through a stone-paved courtyard. While there are rooms of different sizes on the south and east border of the courtyard, there are special spaces that belong to the Sultan on the north side. The inner part of the palace consists of a large hall and harem rooms around a second courtyard and iwans opposite the rooms [2].

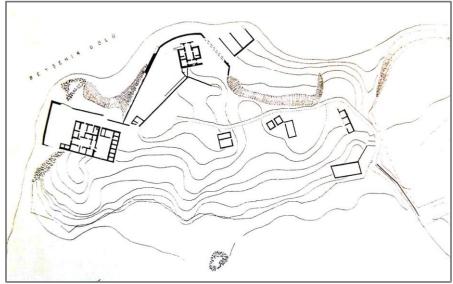


Figure 2: The topographic plan of the Kubadabadpalace külliye [10]

In the remains of Kubadabad palace, it is often seen that predatory animals and plants were depicted (Fig. 3). The Seljuk sultans' fascination with hunting led to the separation of large hunting grounds. In these hunting grounds, natural landscape was preserved, and in the cultural landscape, integration was ensured through fruit trees. The design of the surroundings of the roads and water circulation systems were also considered. In the water systems; pools, mills (tahuna), water channels (mesil ul-seyl), river beds (mesil ul-ma), wells (bire), fountains (ayn), irrigation sets and water embankments (cetvel) were used. Water systems designed like a network in the entire landscape were delivered not only to urban needs but also to all gardens, orchards, and coppice forests. Thus, agricultural productivity has been increased in all areas.When we think of the magnificent cities established in human history, we can understand the perfect relationship between water and civilization. The dependence on the water for the beginning and the continuation of life is irreplaceable.



Figure 3: Animal figures in Kubadabad Palace tiles



Although the Seljuk garden art was continued with the main lines in the gardens (=parks) built during the Ottoman period, it lost its original state in the 18<sup>th</sup> century especially due to the preference of European landscape arts by the administration. Therefore, unfortunately no original Seljuk garden reached the present day. *"Everyone and all the travelers praise Konya's sightseeing places and gardens. I have not seen such gardens until my twentieth trip. The Baruthane area behind the Pecevi Sirem city on the Buda border, Sudaq vineyard in Crimean Peninsula, more than one hundred and seventy gardens and rose gardens of Istanbul, and the Uspusu of Malatya, the Shah Jihan of Tabriz cannot even be considered as a lawn compared to Meram area. There are around nine thousand vineyards and orchards. If a stranger enters one of these orchards, he gets lost. Human beings spring to life through the songs of beautiful birds..." statement of Evliya Çelebi (Chalabi) partly explains that the Seljuk gardens were continued until the 17<sup>th</sup> century. In addition to this, Redford stated that the "Meram gardens" famous for their beauty and abundance in Konya, the capital city of Anatolian Seljuks, are examples of Seljuk gardens, at least with their name, even though not with their form [11].* 

#### 3. Conclusion

The Seljuk garden art is also the basis of Turkish garden typology. Both the miniatures and archaeological remains indicate that the Seljuks were influenced by both the eastern and the western cultures during a period starting from the pre-Islamic wood culture philosophy, up to the post-Islamic paradise garden philosophy, even if just a bit, but they did not fully comply with both. The Seljuk garden art was shaped by the ethnic, social, cultural, and economic conditions of the society, and it created a completely new landscape art in which geographical conditions were also considered and the urban and rural landscapes were interpreted together.

The most typical characteristics of the Seljuk garden art are; adhering to nature when designing due to the great respect for nature, not interfering with the plant's habitus in plant designs, and revealing designs which are more modest compared to contemporary arts. Today, unfortunately, there is no original sample of the Seljuk gardens and it is unique among the contemporary gardens, however, it is possible to say that Seljuk landscape art influenced other landscape styles that emerged centuries later such as French Baroque and British informal landscape in terms of design criteria, technique, and philosophy.

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