INTEGRATING ARCHITECTURE AND THE CREATED LANDSCAPE
IN JAPANESE GARDENS

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Japanese gardens consist of a symbiosis of geometric and natural elements. A perfection of planned architectural forms and a discrete, created “natural feature” complete one another. These gardens are supposed to look more natural, to imitate the processes that take part in nature, yet they create a new, second nature. Thanks to a rich, hidden symbolism they unite two human desires: to follow the rules of nature and to become immortal (a man looking for transcendent nature through the landscape he himself created). There are many types of Japanese gardens that used to change and evolve with the rich history of Japan, however they always express the designed logic of the genius loci of the landscape and of the changing seasons. They allow concentrating on sensations and aesthetic experiences and symbolizes a traditional relation between the man and nature. They integrate architecture and a manufactured landscape, so that the buildings become an integral part of it. Japanese garden is placed on the crossroads of nature and culture, it is a bridge between us and nature, a connection between our roots and the future. Examining the essence of Japanese gardens can be important in the search for contemporary, original types of gardens. Understanding the rules of creating the space of the gardens and their relation to architecture, understanding the Japanese sense of beauty, can influence the artistic quality of contemporary gardens. Currently, the interest in Japanese gardens is growing and they often play a part of a model for new gardens in Europe and other parts of the world.

Keywords: Architecture, Japanese garden, Contemporary garden.

Introduction

Japanese gardens consist of a symbiosis of geometric and natural elements. A perfection of planned architectural forms and a discrete, created “natural feature” complete one another. These gardens are supposed to look more natural, to imitate the processes that take part in nature, yet they create a new, second nature (Nitschke 2003: 162). According to Herbert Read, two elements exist in every work of art (which is also a Japanese garden); by nature, the first is mathematical (structures created by man), giving rise to the category of beauty, and the second is organic, giving rise to the category of vitality (Read 1982: 76, 231). Thanks to a rich, hidden symbolism they unite two human desires: to follow the rules of nature and to become immortal (a man looking for transcendent nature through the landscape he himself created). The characteristic features of Japanese gardens are: asymmetry, simplicity, sophisticated grandness, naturalness, calmness, acknowledging and underlining the beauty of a natural rock - all leading to the reinforcement of sensual impressions, scenic and symbolic effects (iwasaka i iwasaka). Vertically arranged rocks placed on a path that create a contrast and therefore underline a flat
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surface, are a common motive. Such rocks can create interesting horizontal and vertical combinations. It is common to use three different elements (a big one, a small one and a medium one) in a Japanese garden. Such composition creates a dynamic balance using an odd number of objects. These three elements used to be interpreted as the symbols of heaven (ten), Earth (hi) and the man (jin). Another interpretation of that structural archetype is the three powers - a horizontal, a vertical and a slanting one.

Japan is a country with a small surface and intensive building development. Their residents from ancient time learnt how to manipulate the space so that it seems bigger than it is in fact. There are few well-known techniques which were used to evoke specific impressions on observers. One of them is applying contrasting elements e.g. contrast of a small gate leading to a relatively bigger space (mouse-hole experience); contrast of a lighted space with a path without visible end, overshadowed and covered with bushes (space-tunnel experience); contrast of small gates and tunnels with the bright space at theirs end, which seems much bigger than it is in fact (the stoppnig-space experience, contrast experience). A next example is a juxtaposition of a lighted space with a path resembling a tunnel elongated by bends, where the distance between the beginning and the end of the walk is lengthening (zigzag-progression experience). Observing space and forms from different levels and from the bottom also simulate an illusion of a bigger and richer one (floating experience).

The influence of philosophy, religion and artistic trends was reflected on the role and meaning of rocks and plants in gardens in Japanese history. Initially designers focus on the essence of nature and its laws. The evolution took place in later times – the man started to dominate and subordinate the ideas of nature. Creating new prototypes of gardens during later time didn't mean the resignation of earlier ones, they became rather a dynamic reinterpretation and combination of old forms with new ones, what let to maintain continuity of tradition. Designers used patterns appearing in nature as well as in historical models of gardens. However sometimes it led to unexpected mechanical repetitions, copies and stereotypes from the past.

Shinto religion and Buddhist philosophy had a significant influence on the composition of Japanese gardens, especially Chinese mythology Shijin-Setsu. According to this mythology four cardinal directions had the various meanings and were ruled by four deities (Łanowiecki 2004). The North was personified by Gembu – the dark warrior. A dark rock (basalt), a mountain with a small fountain (winter), a hill or three Japanese cedar trees symbolized him in the garden. The West was Byakko – a mythical white tiger. He was symbolized by a wide straight pathway (autumn) or seven pieces of Kajiki (yellow Catalpa ovata). The South was Sujak – a mythical red bird. He was symbolized by ocean (summer) and took the form of lake (or pond) or of nine pieces of Katsura (the Katsura tree Cercidiphyllum japonicum) in the southern part of garden. Seiryu – blue dragon (spring) – was a personification of the East, which was symbolized by a river or nine pieces of Shidareyanagi (Chinese Willow Salix matsudana).

The Japanese naturalism is not well understood by outsiders – the western people, because it is adjusted to more sophisticated senses. So intense focus one's attention on floral and minerals texture seems extremely mad to us, it means that somebody is rejecting his own nature in order to learn how it is like to be a moss (Harbison 2001: 27).

Historical and Contemporary Japanese Gardens

There are many types of Japanese gardens that used to change and evolve with the rich history of Japan, however they always express the designed logic of the genius loci of the landscape and of the changing seasons. The first prototype of a garden from the Heian and Nara eras (794-1185)
was dominated by the islands and lakes - an accurate image of the natural scenery (*San-sui*). A Heian-era garden was big; it resembled a seaside landscape and was designed in a way enabling it to be viewed from a boat. The later gardens of that era were encircled with an architectural frame. Unfortunately, not many gardens from that period survived and our knowledge of them is based on literature and hypothetical archeological reconstructions. However, the oldest known book on gardens, *Sakutei-ki*, written in 11th century by Tachibana no Toshitsuna, is preserved. Tachibana no Toshitsuna describes both the rules of erecting gardens that came from China and a more intuitive way of creating gardens more in line with the “Japanese spirit”. The instructions in this book include: the necessity to look for similarity with nature and following the “requests” of existing forms that have their own personalities which should be treated with love and respect. For the Japanese the rocks, flowers and trees have their own “essence” and sensitivity. Acknowledging those crucial features formed a basis of that era’s garden design. The third instruction was about the need to create asymmetric structures that would be confronted with the symmetry of architecture. The fourth instruction was about preserving the *genius loci*, acknowledging the objective aesthetic features of a given place on one hand and the subjective aesthetic taste of the designer-gardener and his principal on the other.

In the subsequent *Nara* period (since the beginning of 11th century) Buddhist monastery complexes with accompanying gardens were built (you can still see them near Osawa). They were a logical continuation of the former prototype, built on a North-South axis, on a rectangular architectural layout that encircled the garden (*armchair design*). The gardens with a pond and a central island with a scene for religious ceremonies and concerts were a novelty at that time. The garden and the temple were built as integral parts of the same unity. At the beginning, the garden was subordinate to the right angles of architecture (Hojo-ji Temple); later on this order was reversed - right angles lost a function of framing the created landscape and a temple was always subordinate to the garden (Motsu-ji Temple).

In the *Kamakura* (1185-1336) and *Muromachi* (1336-1576) periods Buddhist Zen philosophy and, for the second time in history, Chinese culture influenced garden design. In this period, a prototype of a small, dry landscape *karesansui* garden was developed that consisted a part of surrounding *Shoin* type architecture. Such gardens were created not only for pleasure, but for contemplation as well. Similarly to the paintings, the gardens were designed to be watched in a static state, from particular convenient points (not from a boat or during a walk, as before). At the same time, water “disappeared” from the gardens and was represented by the sand (*Ginkaku-ji*). The gardens were designed by the monks from the Shingon and later on - from the Zen sect. Also the people from the lower castes, *kawaramono* - “river-bed people”, helped in building the gardens. The composition was based on simplicity, abstraction, on the essence of nature. In the *Muromachi* period the designers were trying to imitate natural forms, to examine in details natural proportions, rhythm, energy and movement. Before, the subjects of gardens were changing seasons and natural landscapes, now - the secrets of nature and human existence (Nitschke 2003: 105). *Muramachi*-period garden was constructed similarly to the Chinese landscape paintings from the Song Dynasty. Three basic layers were introduced to create depth and an illusion of vast space. There was the sand in the foreground, a pond and rocks in the middle and a “borrowed” landscape in the background. A unique example of a garden from this period that still exists is a Ryoan-ji garden, the first garden with a “designed” empty space. There are no living plants in it - only the rocks, moss and the sand (15 stones were grouped in 3 compositions, containing 7, 5 and 3 stones, and the space between them is covered with the sand). The garden is an abstract composition of “natural” forms in a space intended for meditation. Another significant example is the Daisen-in garden, which is unique as it combines
for the first time a Chinese Heian-era prototype with an austere, dry garden. It is a combination of large amount of rocks in various shapes, sizes, colors and texture in a very small space. As a painting, it is composed frontally. It contains rich symbolism of human life, from adolescence to the old age (e.g. the rocks on the path symbolize a difficult lesson of human life). Yet another example is the Shinju-an garden (1491), which is somewhat similar to the previous examples, and contains a composition of 15 stones in three groups (7, 5, 3). According to G. Nitschke, it is possible that those groups might have been developed under influence of metric feet used in Japanese poetry (5, 7). The garden is austere, unpretentious, it is created by a rhythmical arrangement of natural elements.

Muromachi-era gardens and nature drifted apart - they were composed similarly to the landscape paintings and consisted monochromatic representations of nature. They were designed to watch them from a distance. Shoin architecture influenced the gardens as well, among others by introducing movable walls inside the buildings and transparent walls outside that allowed framing garden views with architectural elements and moving those views inside. *Sansui narabini yakei-zu*, a textbook containing illustrations, was published in 1466. Its main topic are the cosmic laws concerning rocks and their names. According to M. Shigemon, the Muromachi-era gardens reflect two fundamental aesthetic ideals: deep, austere elegance with multilevel symbolism (*yugen*) and the beauty of empty space (*yohaku no bui*).

A few types of gardens can be distinguished in the long history of Japanese gardens: gardens with a pond, dry gardens, stone gardens (stroll garden) and tea gardens (the rustic tea garden). Small, simple and plain gardens designed in a way not distracting the guests, were established at the end of the 16th century, with the tea drinking ceremony. The prevailing features of those gardens were grass and moss. They were designed to be observed from a path leading to a small house (one module was used: multiplicity of tatami mat, 3x6ft). Architectural elements in this era were placed at a slant to the paths. Thanks to this, the observer could come up with many interpretations of the views (*ganko*). In the tea gardens small houses (tea arbours) were often placed near a pond or a trickle, so that it consisted a rectangular frame for the observers.

The third wave of Chinese influences (Confucian religious practices) took place during the Momoyama period (1576-1615). A new type of gardens from this period was dominated by huge rocks and combined gardens with pond and dry gardens in harmonious unity. Common elements were three bridges: a short and a long bridge built on the same axis, and a third, longer bridge placed on a certain angle. An interesting garden from that era is the Shinnyo-in garden, with peculiar stones representing swimming fish. The art of trimming bushes (*o-karikomi*) that later became a characteristic feature of gardens, was also developed in the Momoyama period. Other common features were symbolic representations of the Harai mountain, ships, waves, etc.

The Taga Taisha Shrine garden in the Shiga Prefecture, erected below the level of buildings, was built in the Edo period (1615-1640). A prototype of large gardens used for walking that were leading the visitors to arranged perspective views, was developed in that period. Such gardens were like three-dimensional paintings, they were often framed with architectural elements. According to Harbison, “a Japanese building is a contemplative one, it is a beauty spot that consists a part of the watching mechanism itself, as are the eyebrows, eyelashes and eyelids” (Harbison 2001: 29). Edo-period gardens used the *shakkei* technique of incorporating distant elements of the landscape surrounding the garden, in a new way. Incorporating views became the prototype of gardens used for walking, in which the designers directed the visitors’ attention to the views they framed and closed in four layers. The first layer was not a dominating one, it only lead to the second one that was a connector with the more distant layers and contained carefully chosen and placed natural forms and stone compositions. The third layer was usually trees and
bushes, consisting a frame of the last, most distant layer (mountains, hills, architectural forms). The gardens in that era were unique not only due to their size, but also due to using elements from the previous prototypes while maintaining a new organization of the space of the garden. The path lead through changing landscapes and natural forms appearing without a visible hierarchy, like sequences of paintings - replicas of natural landscape.

After the World War II Japanese gardens were built next to public buildings, they were often designed by the sculptors, architects and landscape architects. The new, modern prototype of the garden mirrors nature, but according to the will of an artist, as his auto-creation. The natural landscape (land-scape) was replaced with an abstract landscape, developed by a human mind (mind-scape). One of the gardens built after the World War II that is worth mentioning, is a garden with a pond (pond garden) in front of the Kugawa Prefectural Government Offices in Takamatsu, designed by Kenzo Tange (1958). The architect based his composition on a dynamic confrontation of right angle with carved stone forms, emphasized by their reflection in the glass facade of the building and in the water. In 1975 Mirei Shigemori designed a garden based on geometric spirals, inspired by a drawing of a traditional kimono. He put together the spirally carved shores of the pond with natural stones and rectangular architecture.

In time, synthetic materials such as metal or plastic were introduced into the Japanese gardens. A garden in Shonandai Culture Centre in Fujisawa, designed by Itsuko Hasegawe (1989), can be a good example of this process. Its main element is a meandering stream, with metal trees “growing” on its shores. A naturalistic waterfall in plastic was placed in a garden by the ANA Hotel in Kyoto. A “cold garden” on a marble courtyard of the Longchamp Textile Company in Kyoto was designed by Hiroshi Murai. The designer used sculptures made of dry trees covered with silver paint. Tadao Ando designed a modern, geometrical garden in Awaji Yumebutai (so-called A Stage for Dreams, 1992-2003), at the Kansai airport in Japan. In it, a spacious garden was made of stairs and plots of green in terraces, next to plots of water, covered with shells and other elements. Ando created architecture communicating with nature - with the wind, water, light, sky and plants. Using a strictly modernist geometrical language and materials (concrete) considered common allowed expressing a very specific spirituality. The architect wrote that “the amazement and emotions with which we experience space come from confronting what we have seen before with what we are to see later on” (Jodidio 1998: 132-133).
A centuries-old experience of Japanese gardeners has an universal character and can creativity influence on contemporary landscape architects. Currently, the interest in Japanese gardens is growing and they often play a part of a model for new gardens in Europe and other parts of the world. The Szczytnicki Park is an outstanding example of a Japanese garden in Wrocław in Poland (Ill. 1-4). It was created in 1913 for the Exhibition of Garden Art. A whole outline of the garden with the pond and arrangement of streams and trees derived from that period. A current shape of the garden is a work of Polish and Japanese specialists directed by Prof. Ikuya Nishikawa. It was opened in 1997 after two years of preparations. The numerous wooden buildings with original Japanese lamps and bowls create an unusual connection of plants and objects created by man. The pergolas, walls, gates (torri), bridges and stone stairs are important components in the garden composition (Siewniak, Mitkowska 1998: 102), acting as staffage. The exotic plants are the garden materials (among others bonsai), they are connected with stones, gravel and water.
Final Conclusions

The long-lasting experience of Japanese gardeners is universal and can creatively influence architects designing contemporary gardens. Currently, the interest in Japanese gardens is growing and they often play a part of a model for new gardens in Europe and other parts of the world.

Japanese gardens allow concentrating on sensations and aesthetic experiences and symbolizes a traditional relation between the man and nature (Siewniak, Mitkowska 1998: 102). They are designed in close relation to the landscape surrounding them and the architecture accompanying them (Makowska 2013: 307-309). They integrate architecture and a manufactured landscape, so that the buildings become an integral part of it. Japanese garden is placed on the crossroads of nature and culture, it is a bridge between us and nature, a connection between our roots and the future. Examining the essence of Japanese gardens can be important in the search for contemporary, original types of gardens. Understanding the rules of creating the space of the
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gardens and their relation to architecture, understanding the Japanese sense of beauty (*unio mystica*), can influence the artistic quality of contemporary gardens.

**References**