

COMPARATIVE STUDY REGARDING THE USE OF THE THREE USED STYLES IN LANDSCAPE: FORMAL, INFORMAL AND MIXED WITHIN THE PROJECT FOR THE DEVELOPMENT OF A SECTION OF THE PARK

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Abstract

An incursion in one of the two important landscapes of land thinking highlights the particularities characteristic of the arrangement modes used in the green spaces that are closely related to the natural conditions of the site and the social context of the period in which they were realized (Stănescu, 2008). In addition to the characteristic features, common general features allow us to classify compositional styles in three major categories: formal or geometric style, informal or free style and mixed style (Iliescu, 2003).

In the current work we set out to carry out a project to arrange a park on an area of 30,000 m², the theme represents a chapter of my license work, in which to use the three styles used in landscape arrangements and make a comparison between their stylistic deficiencies and rules.

The realization of the project involved the elaboration of a general arrangement plan executed on scale 1:500 using the "Landscape Design" and "Paint" programs, in which all the individual and group conventional elements and signs are required in the presentation of the general arrangement solution starting from identifying problems, conflicts and options.

The conclusions we have reached indicate that regardless of the style used, the solutions proposed in the design of contemporary green spaces must be appropriate to the practical needs, the composition is dictated by the functions that the space is to meet in order to meet the recreational needs of modern man.

Also, nowadays the spaces are no longer constrained by the stylistic rules of the past centuries and benefit from innovative techniques, which allows the realization of concepts such as "green design", sustainability.

Keywords: landscaping, formal, informal and mixed style, ornamental plants

INTRODUCTION

This theme is a response to the need for an integrative and sustainable territorial planning of green spaces and has as its starting point the requirements of the modern man who is a prisoner of concrete and a dynamic and active life, but who aspires to a place in nature that ensures his tranquility, air and sun necessary for life.

The obligation to maintain a balance between the built surface and that of green areas makes it necessary to adopt a strategy in the field of environmental protection, and implicitly the development of green spaces, a long-term urban plan correlated with the provisions of Law no. 24/2007 regarding the regulation and administration of green spaces in urban areas and Law no. 313/2009, which amends and supplements the aforementioned law (Vidican, 2015).

Current studies show that in the course of a day, a foliar surface of 25 m² provides the necessary oxygen for a person. In addition to the chemical purification of the atmosphere, which maintains the day-night balance in favor of oxygen production, the vegetation also performs a physical purification of it by

retaining dust and powders (Turner, 1998). The results of scientific research highlight the fact that "a lawn of grass retains 3-6 times more dust than a bare surface, and a mature tree retains 10 times more impurities than a lawn the size of the projection of its crown on the ground" (Ciulache, 1980). In parallel with the chemical and physical purification of the atmosphere, the vegetation also carries out a bacteriological purification of it, destroying a good part of the microorganisms through the process of releasing oxygen and ozone, especially by conifers, and not only (Tudora, 2006).

Vegetation also plays a vital role in moderating the urban climate. In cities, buildings and paved or concrete surfaces create a specific urban climate, with higher temperatures and a restriction of air circulation, which leads to the production of the so-called "heat island" effect (fig.1). In contrast to this, the vegetation, through the shadow effect and the increase in air humidity, contributes to the creation of a more comfortable environment. Hence the use of the phrase "park - cool island", in contrast to the urban "heat island". Climatological studies claim that in the vicinity of forests, the average air temperature, on

summer days, is 2-3.5°C lower than in unplanted open areas in cities, and 12-14°C lower than the temperature of buildings and concrete and asphalt areas (Harris et al, 1999). The rich vegetation contributes to the increase of relative humidity by 7-14% in parks and forests, with a beneficial effect on the neighboring areas (Vidican, 2011).



Fig.1. Image representing the influence of temperature on inhabited areas with and without vegetation.

Another benefit brought by vegetation is the mitigation of noise pollution. Green spaces, especially the compact ones, constitute real noise barriers, contributing significantly to the reduction of their level, during the growing season. Some researches show that the noises, which in the urban environment reach intensities between 40 and 80 decibels (Vidican, 2015), can be reduced by half if there is some vegetation (fig.2).

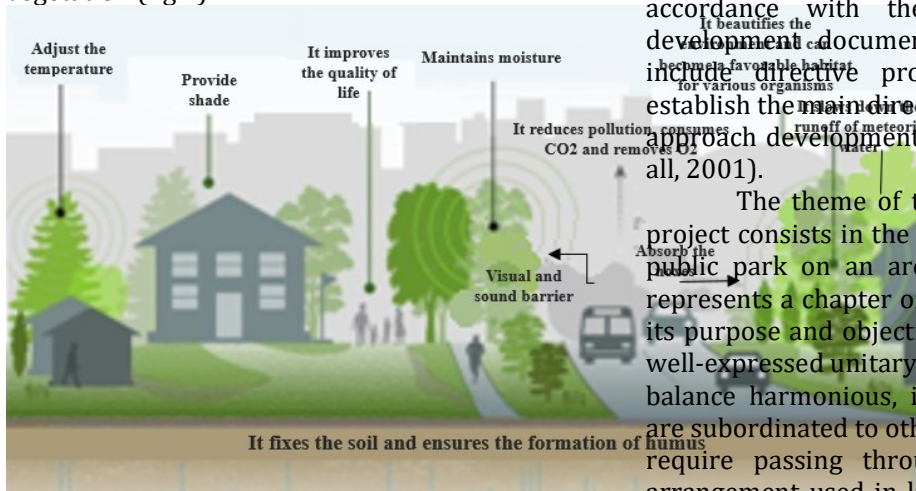


Figura 2. Imagine reprezentând influența pozitivă a vegetației asupra mediului locuite

Green spaces have the role of preserving and perpetuating the native natural vegetation in the areas where cities are located by providing and conserving habitats for different species, which can sometimes have a greater diversity than in rural habitats (Simonds, 1967).

The aesthetic function is visible through the decorative valences of plant species. Landscaping gives a particular territory a special decorative value, appreciated by the satisfaction that man achieves with vegetation (Dee, 2012), which due to the components (stems, branches, bushes, flowers, fruits, seeds) give the impression of a well-organized thing, a composite thing in which the parts harmoniously subordinate themselves to bring out the inherent measure of each composition, which is beauty.

The recreational function is given by the beneficial effects for people's health, not only by creating a favorable microclimate and a calmer environment, with cleaner and better oxygenated air, but also by the aesthetic influence on the neuropsychic state. Through recreation, a state of relaxation is created, through which the mental and nervous traumas caused by tension states are eliminated or the temporary fatigue caused by the daily activity program is eliminated.

MATERIAL AND METHOD

The designed spaces are unitary landscape creations, which by their own means express a purpose, fulfill certain functions and have an independent artistic content (Costescu, 2003). Whatever the theme of the development project, the process itself is based on strict criteria of scale and proportionality, in accordance with the laws in force, the development documentation - called plans - include directive proposals, therefore, they establish the main directions through a strategic approach development of a territory (Iliescu et al, 2001).

The theme of the current development project consists in the creation of a section of a public park on an area of 30,000 m², and it represents a chapter of my bachelor's thesis, so its purpose and objectives are the creation of a well-expressed unitary ensemble, organized in a balance harmonious, in which some elements are subordinated to others in a logical chain and require passing through all three types of arrangement used in landscaping, respectively: formal, informal and mixed style.

For the realization of the project, we developed a general landscaping plan executed at a scale of 1:500. The plan includes the component elements of the green space arranged using the conventional graphic signs from the landscape drawing. The general idea is given after studying the structure, axes,

compositional center, focal or dominant points, circulation schemes, location of equipment, etc., these sketches are analyzed, combined or superimposed in order to prefigure the masses, volumes, texture and colors of the composition.

Finally, the general plan must contain: the proposed constructions, the circulation system represented by: roads, alleys, paths, parking lots and other traffic elements, decorative constructions (pergolas, fountains, shading, pools, etc.), the proposed functional areas, the plantations rendered by contour and/or color, these are depending on the style: masses or groups of trees or shrubs, isolated specimens, alignments rendered by individual conventional signs, trimmed or free hedges, arrangements with decorative herbaceous plants through flowers or leaves, etc. (Iliescu et al., 2001).

RESULTS AND DISCUSSIONS

The design of the formal landscape represents a style of landscaping that, in its historical evolution, has been known since Ancient Egypt, we find it in Roman, Arab and Moorish gardens, during the Italian Renaissance and reaches its peak in France in the 17th century with the landscaping of to Andre le Notre of the Gardens of Versailles (Charageat, 1962).

The style is characterized by perfection, purity and beauty characteristics established by the ancient Greeks, the fathers of philosophy, who impose "Euclidean geometry" as a sublime refuge from the imperfect world. Armed with an orderly mentality disciplined by mathematics and in love with geometric patterns, this thinking also imposes itself in the history of formal landscape design where we can impose our will on nature achieving perfection by constraining it using straight lines, flat planes, the circle and rectangular and topiary shapes (Vidican, 2012).

Structuring of space in formal arrangements is based on the principle of symmetry, a perfect ordering towards the compositional center using rhythm, unity, harmony and proportions (Rybczynski, 2013). The circulation scheme in the spaces arranged in an informal style is given by the network of main, secondary and tertiary alleys, which open symmetrically from the central point of the composition (Stănescu, 2008).

In the case of our project, the circulation scheme is formed by the axis of symmetry that divides the space into two symmetrical parts, it

starts from the middle of the compositional center, crosses the entire space to be arranged and has as its final perspective the area of interest represented by the pontoon on the natural lake. Perpendicular axes divide the space into functional areas of symmetrically arranged geometric shapes, easy to visually control and orientate.

According to the characteristics of the style, human intervention is obvious, the vegetation is represented by small ornamental plants to aesthetically enhance the compositional center. Borders of *Buxus sempervirens*, small hedges (50 cm), ensure order and unity in space and help to properly organize the sectors created in which perennial and annual plants decorative through flowers form arabesques, mosaics, rondos, borders and borders. The woody topiary vegetation consists of *Thuja occidentalis*, and in the central area where we designed a chessboard on a human scale, we set up a rosary with roses, elegant, luxurious and appreciated flowers, which impress both through the variety of shapes and chromatically and aesthetically.

Taking into account the complex character of the formal garden, it includes many decorative elements, in the case of our project these are represented by: statuary groups, avenues with busts, benches, fountains and pergolas covered with climbing roses, elements intended to outline the grand character of the style formal.

The informal style appears in the 10th century in the Far East, China and Japan. In Europe, the medieval period brings a different way of thinking, thus in 1713, Pope Clement XI called for a return to the "friendly simplicity of unadorned nature" instead of the formal garden (Loxton, 1991), this movement was considered a form of opposition to order, discipline and moderation. One of the most famous cottage gardens, as it was originally called, was designed by Claude Monet, the French impressionist painter (Iliescu, 2003). In the USA, Frederick Law Olmsted and Edwin Budding perfected this style and brought the lawn or open lawn as a novelty element (Neufert et al, 2000).

The informal arrangements abound with roses, perennials, lianas, shrubs and ornamental trees in free forms, giving rise to a natural landscape, quite chaotic, from an artistic point of view, which inspires more emotionally than intellectually (Vidican, 2021).

By using this design style, we use sinuous, wide and comfortable avenues as principles for structuring the space, asymmetry replaces the symmetrical rigidity of the space, perspective axes are closed either with the help of plant elements or by relief forms (Dee, 2012). It is important that anthropic intervention is not noticed in the informal arrangements, the plant compositions harmonize with the natural setting, the plants represented mainly by woody species have a free crown, as wild as possible although, obviously, it is a carefully thought out aspect (Iliescu, 2013).

In the case of our project, the informally managed area is found in the vicinity of the natural lake surrounded by characteristic plant elements, respectively: *Salix babylonica* and *Populus sp.*, but also *Tilia tomentosa* and *Betula alba*, species planted as interspersed elements to create unity with the alignment of *Tilia tomentosa*, which delimits one of the main alleys and the one of *Betula alba*, which borders the perimeter of the entire space to be developed.

The woody plants will be grouped according to well-established criteria according to the characteristics of the soil and the exhibition, also according to height, color or shape, the period in which they decorate and the texture of the decorative elements, according to the thickness of the crown s.a.. In the composition, we chose to have isolated plant elements, specimens that stand out due to major aesthetic effects, specimens that present uniqueness and size appropriate to the context, for example *Acer palmatum* *Atropurpureum* stands out due to the red color of the foliage, *Abies concolor*, conifer with a bluish-green crown, *Liriodendron tulipifera* and *Albizia julibrissin*, decorative species through flowers or *Quercu robur*, towering tree, with a majestic port (Dumitraşcu, 2008).

The realization of plant compositions made of ornamental shrubs involves the association between elements of a very large typological diversity from creeping, pendulous, lianas or shrubs, practically having an infinity of possibilities, but depending on the goal pursued we can say that success depends on the choice of distance, of the viewing angle, relations with the neighborhood, etc., there may also be areas intended for certain species.

The informal style is devoid of floral decorations such as mosaics, arabesques, rondos or frills but presents wide lawns covered with grass where annual or perennial

plants decorative through flowers or leaves are found placed in patches with sinuous contours.

The water is arranged in the form of ponds, lakes with irregular banks or streams with winding paths, all of which are arranged in such a way as to create the impression of being natural (Tudora, 2006). In our case, the water is represented by a natural lake on which we arranged a pontoon with a jetty, which makes this element of the space a point of maximum interest, also near the lake we placed a restaurant and a cafe.

The middle of the 18th century brought the mixed style to France, initially as a way of adapting the formal style in areas that do not allow the radical transformation of the space to be arranged (Stănescu, 2011). But it is expanding rapidly, as an independent style in the field of landscaping, due to its adaptability to natural conditions and to certain social requirements, being suitable even today in the arrangement of green spaces (Costescu, 2003).

In the case of our project, the space designed in a mixed style can be found in the middle area of the surface to be arranged and was defined by the harmonious combination of the elements characteristic of the formal style, the symmetrical system of straight alleys with those of the informal style represented by a vegetation designed to be defined as form and composition as natural as possible. It is important that no matter what the elements of the two styles that we mix are, we should consider their harmonious, unitary and organic combination, aiming for their most natural fit in the landscape (Bonsignore, 2003).

CONCLUSIONS

- regardless of the style used, the solutions proposed in the design of contemporary green spaces must be appropriate to practical needs;
- the composition is dictated by the functions that the space is to fulfill in order to satisfy the recreational needs of modern man;
- the landscaped green spaces are no longer bound by the stylistic rules of past centuries;
- currently we benefit from innovative techniques, which allows the realization of concepts such as "green design", sustainable and durable;
- it is important to take into account the fact that informal gardens do not require so much care work, so less costs;

- plants offer such a wide range of combination possibilities that it is not difficult to choose a composition according to the chosen style and your own needs;

- gardens or private spaces can be created using decorative plants and horticultural, medicinal or aromatic plants.

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