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GROUPING DECORATIVE PLANTS IN COMPOSITIONS APSSHERON NATIONAL SEASIDE PARK

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The article describes the research work on the taxonomic composition of tree-shrubs and herbaceous plants, the form of creating compositions, the rules for grouping, pruning, the use of small architectural forms in the Absheron National Seaside Park.

It was revealed that about 97 species of tree-shrubs and herbaceous plants from 51 families and 78 genera are used in the compositions. It was revealed that these plants adapt well in the conditions of Absheron, are promising and are recommended when decorating parks, gardens, squares, and creating various compositions.

Keywords: decorative, plant, park, landscape, composition

It is difficult to imagine modern cities of Azerbaijan without gardens and parks, greened streets and courtyards. Green spaces along with the improvement of the microclimate serve as necessary aesthetic elements of the urban environment. The formation of city parks, landscaping of residential areas is a complex urban development task. The solution to this problem especially coincides with the development of unfit territories, the restoration of destroyed landscapes and the creation of new landscapes that meet the requirements of modern republican urban planning. The study of all multilateral sectors of landscape gardening in Azerbaijan is of great importance in the modern era. The protection of our cultural heritage is very relevant. Many historical gardens and parks that make up the bulk of this heritage are being destroyed before our very eyes. An urgent need has been created for restoring some landscape gardening compositions, caring for landscape architecture monuments, and stopping the process of their destruction.

According to sanitary and hygienic standards in large industrial cities, including Baku, the area of green spaces should be 45-50% of the total residential construction area or 26-30 m² per inhabitant [1].

In 1927, under the guidance of a well-known specialist in urban planning, prof. A.R. Ivanitsky prepared a new master plan for the deve-

lopment of the city of Baku. In the general plan, special attention was paid to the formation of the boulevard on the Caspian coast. According to the plan of 1927, according to the project of A.R. Ivanitsky, the Seaside Territory was built on 400 m. The Seaside Boulevard was created and planted from gardens and grounds [2].

In order to study the creation of compositions, the taxonomic composition of ornamental trees, shrubs and herbaceous plants, the rules for their grouping, pruning, the use of small architectural forms in the National Seaside Park, research work is being carried out in the "Landscape architecture" laboratory of the Institute of Dendrology of the National Academy of Sciences of Azerbaijan. In the research work on the second decade of May and the second decade of August 2019, observations were made on the territories of the Old Boulevard, New Boulevard and Flag Square of the National Seaside Park, herbaria were collected and the taxonomic composition of ornamental trees, shrubs and herbaceous plants from 51 families was determined, 78 genera and 97 species, the grouping of plants in compositions according to decorative features, the forms for creating compositions, the rules for using small architectural forms, the pruning of trees and shrubs were studied. Forms of creating some studied compositions in National Seaside Park are shown in the figures.

Geometric shapes of compositions in a regular style:

**Fig.1.** Rhomb shape**Fig.2.** Oval shape

Original forms of compositions in a landscape style:

**Fig.3.** Original shape**Fig. 4.** Ornamental shape

Ornamental plants for people are an aesthetic source. These types of landscaping are especially important in the difficult psychological conditions of cities, in protecting the environment from pollutants in the modern era. Many introducers along with these features have ameliorative significance. They play a large role in strengthening the sand, preventing water erosion in the soil, sliding slopes around the Caspian Sea [3].

At present, National Seaside Boulevard occupies a special place in the landscape architecture of Baku. In the past 50 years, the boulevard

has expanded significantly and has been rebuilt several times. Here, a combination of evergreen and deciduous plants with each other created an expressive aesthetic image of landscape architecture. Fountain pool systems enrich walks and improve the microclimate of the boulevard. Ornamental plants planted around the pools, including landscape design objects and small architectural forms enhance the artistic and architectural image of the park ensemble.

The taxonomic composition and origin of some ornamental plants studied in the National Seaside Park are shown in the table.

Table

**The taxonomic composition and origin of some ornamental plants studied in the
National Seaside Park**

№	Family	Species	Genus	Country
1	<i>Pinaceae</i> Lindl.	<i>Pinus</i> L.	<i>Pinus eldarica</i> Medw.	Europe Asia
2	-----	<i>Cedrus</i> Mill.	<i>Cedrus deodarata</i> Laws.	Algeria, East
3	-----	<i>Picea</i> Dietz.	<i>Picea ajanensis</i> Fisch.	North America
4	<i>Cupressaceae</i> F.W.Neger	<i>Juniperus</i> L.	<i>Juniperus communis</i> L.	Big and Lesser Caucasus
5	-----	<i>Thuja</i> (L.) Tourk.	<i>Thuja occidentalis</i> L.	Japan
6	-----	<i>Chamaecyparis</i> Spach.	<i>Chamaecyparis</i> <i>nootkatensis</i> Spach.	North America, North California
7	-----	<i>Chamaecyparis</i> Spach.	<i>Chamaecyparis</i> <i>lawsoniana</i> Parl.	North America, North California
8	-----	<i>Cupressus</i> L.	<i>Cupressus arizonica</i> Greene	California, Arizona, Mexico
9	<i>Violaceae</i> Batsch.	<i>Viola</i> L.	<i>Viola x. wittrockiana</i>	Italy
10	<i>Aizoaceae</i> Rudolphi	<i>Carbobrothus</i> Schwant.	<i>C. roseus</i> Schwant.	South Africa
11	<i>Theaceae</i> D.Don	<i>Camelia</i> L.	<i>C.japonica</i> L.	Japan, India
12	<i>Magnoliaceae</i> J.St.Hil.	<i>Magnolia</i> L.	<i>Magnolia liliflora</i> Desr.	East Asia China, Japan
13	<i>Cycadaceae</i> L.Jonson	<i>Cycas</i> Thunb.	<i>Cycas revoluta</i> Thunb.	Japan
14	<i>Oleaceae</i> Lindl.	<i>Ligustrum</i> L.	<i>L. japonicum</i> L.	Caucasus, Ukraine,Moldova
15	-----	<i>Jasminum</i> L.	<i>Jasminum sambac</i> L.	China
16	<i>Platanaceae</i> Dumort.	<i>Platanus</i> L.	<i>Platanus orientalis</i> L.	North America
17	<i>Taxaceae</i> F. Gray	<i>Taxus</i> L.	<i>Taxus cuspidata</i> Sieb.	Europe
18	<i>Fagaceae</i> A.Br.	<i>Quercus</i> L.	<i>Quercus ilex</i> L.	Southern Europe
19	<i>Rosaceae</i> Juss.	<i>Rosa</i> L.	<i>Rosa canina</i> L.	China, Korea
20	<i>Hydrangeaceae</i> Dumort.	<i>Hydrangea</i> L.	<i>H. macrophylla</i> DC.	Japan

The beauty of Baku is given by its beautiful gardens and parks. Over the past 10 years, 45 new parks of culture and recreation have been created in Baku, and 84 have been reconstructed. Baku Boulevard - National Seaside Park today meets the population of the capital and guests in a new form. In the past, before lawns and malls were created, people used to walk along the coast. In 1860, the fortress wall was destroyed from the

sea, and five years later, in 1865-1868. The coastal strip created by the city architect Kasum bey Hajibababekov united the seashore with the central part of the city. In 1909, the coastal strip was officially named Seaside Boulevard. The basis of a small park on the seashore was laid by engineer M.G. Ganja. Basically, the wide terraced strip of the boulevard turned into a park is formed by the opening of the site from the Caspian Sea.

Landscaping improves the microclimate and creates a comfortable climate. In connection with the process of evaporation and transpiration from the surface of the leaves of trees, the air temperature in the environment decreases and the radiation of the sun decreases. In such cases, the role of *quercus*, *acer*, *castanea*, *tilia*, *juglans* and other broadleaf trees is great. Their conifers *pinus*, *picea*, *cupressus*, and others releasing a large amount of volatile substances into the environment destroy pathogenic microbes harmful to the body and enrich the air with resinous substances [4].

On the territory of the National Seaside Boulevard, creating various shapes (oval, rectangle, square, row plantings, circle, rhombus, labyrinth, flower garden, etc.), the plants are planted with evergreen and deciduous tree and shrub plants from foreign and local flora - *picea*, *thuja*, *juniperus*, *agave*, *pyracantha*, *platanus*, *quercus* and etc. Around the recreation areas intended for the adult generation and children, flower beds and *palmaea* trees are located, the stone terraces of the boulevard are covered with climbing plants, mainly the squared. Against the background of the *pinus*, *cupressus*, *picea*, *thuja*, *palmaea*, *juniperus*, *olea*, *chamaecyparis*, *ligustrum* and other coniferous, evergreen trees and shrubs, the landscape architecture of Seaside Boulevard attracts many vacationers here not only in the spring and summer seasons, but also in the autumn- winter seasons. Flower beds located throughout the territorial strip of the boulevard play a significant role and on ordinary working days create a cheerful, festive mood. Currently, the length of the boulevard has reached 16 km. The White City Boulevard, Bailov Boulevard, the area around Flag Square, united, created a single, large boulevard. Half of the territory of the boulevard is 200 hectares. makes up the plant world.

When creating beautiful landscape compositions on the site, much attention is paid to conifers. Along with large areas and in small areas, many varieties of undersized conifers look beautiful. The presence of conifers on the site gives it a unique flavor, special beauty and decorative appearance. Along with this, the needles of these plants secrete phytoncides - special substances that cleanse the air of microbes [5].

In addition, ordinary plantings of ornamental trees and shrubs attract attention. In the center of the composition, evergreen trees and shrubs are mainly planted, and flowering grassy plants along the edges. Trees and shrubs cut in various forms look very beautiful in compositions. For example, the following trimmings were observed: decorative *olea* - ball; *chamaecyparis* - square, rectangle, cone, longline; *ligustrum* - ball, square, elongated; blue *picea* - cone; *thuja* - spiral. In order to preserve the natural forms of green spaces and give artificial forms, for example, a ball, cone, spiral, animal figures, etc. trimmed. In the compositions around ornamental trees, shrubs and herbaceous plants, a litter of colored small stones and a lawn is created. On the territory of the National Seaside Park, small architectural forms were very skillfully used to create compositions. These forms include various figures - "Children around the lantern", "Artist", "Man giving a hand", "Playing chess", fountains, colorful lights, benches, flower pots. Small architectural forms give the territory of the boulevard even greater beauty, make the rest of the population coming here convenient and rational. On the territory of the National Seaside Park, a plot of various types of *cactus* particular attention. The living inscription "Boulevard" created from *ligustrum* turned into the emblem of the National Seaside Park. The *magnolia* tree was brought from Italy and is currently widely grown in the parks and gardens of Absheron. On the boulevard, trees and shrubs are planted in large pots. For example, a flowering *camellia* tree planted in a large pot is very beautiful and interesting with large flowers and shiny leaves. There are two species of this plant, one blooms in spring and the other in winter. Most plants planted in Seaside Park are introduced from Spain, Italy, Turkey, Iran, Belgium and Holland. In these countries there are areas whose climate is similar to that of Absheron, so the plants brought in from there quickly adapt to the conditions of Absheron. A long time ago, a stone *quercus* tree planted on the boulevard is 120 years old. Since the plant has taken root well in Baku, young *quercus* of this species are planted through-

hout the boulevard. The oldest *olea* tree in Azerbaijan grows on the boulevard - its age is 157 years. On the boulevard grow 3 copies of the *baobab* tree. Of these, the youngest is 50 years old, and the rest are 205 and 215 years old. On the boulevard, perennial flowers, such as *rosa* and *azalia*, do not change during the season, and annual flowers change twice a year. The first time they are replaced in early October - these are autumn flowers and decorate the boulevard in the cold months. For the second time - in spring, heat-loving spring flowers planted brought mainly from Holland. To turn the National Seaside Park into the pearl of the urban architectural ensemble, new compositions of various shapes should be created, promising, ornamental trees, shrubs and herbaceous plants introduced from local and foreign flora should be used. In addition to a beautiful and convenient park, National Seaside Park is our history, past, present and future. Every citizen must contribute to the prosperity of his native land.

As a result of research work at the Institute of Dendrology, it was revealed that the species of ornamental trees, shrubs, and herbaceous plants that were studied in the National Seaside Park and introduced from local and foreign flora are well adapted to the conditions of Absheron, are promising, and their further use in landscaping is advisable Baku, when creating compositions.

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ABŞERONUN DƏNİZKƏNARI MİLLİ PARKINDA DEKORATİV BİTKİLƏRİN KOMPOZİSİYALARDA QRUPLAŞDIRILMASI

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Məqalədə Abşeronun Dənizkənarı Milli Parkında ağac, kol və ot bitkilərinin taksonomik tərkibi, kompozisiyaların düzəldilmə formaları, onların qruplaşdırma qaydaları, budanma formaları, kiçik memarlıq formalarının istifadəsinin öyrənilməsi üzrə elmi-tədqiqat işi aparılmışdır.

Aparılmış elmi-tədqiqat işi nəticəsində məlum olmuşdur ki, kompozisiyalarda 51 fəsilə və 78 cinsdən ibarət təxminən 97 növ ağac, kol və ot bitkiləri istifadə edilir. Müəyyən edilmişdir ki, bu bitkilər Abşeron şəraitinə yaxşı uyğunlasır, perspektivlidir, park, bağ və xiyabanların tərtibatında, müxtəlif kompozisiyaların yaradılmasında istifadəsi məqsədəuyğundur.

Açar sözlər: dekorativ, bitki, park, landşaft, kompozisiya

ГРУППИРОВКА ДЕКОРАТИВНЫХ РАСТЕНИЙ В КОМПОЗИЦИЯХ НАЦИОНАЛЬНОГО ПРИМОРСКОГО ПАРКА АПШЕРОНА

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В статье описана научно-исследовательская работа по изучению таксономического состава древесно-кустарниковых и травянистых растений, формы создания композиций, правил их группировки, форм обрезки, использования малых архитектурных форм в Национальном Приморском парке Апшерона.

В результате проведённой научно-исследовательской работы выявлено, что в композициях используются около 97 видов древесно-кустарниковых и травянистых растений из 51 семейств и 78 родов. Выявлено, что эти растения хорошо адаптируются в условиях Апшерона, являются перспективными и рекомендуются при оформлении парков, садов, скверов, создании различных композиций.

Ключевые слова: декоративный, растение, парк, ландшафт, композиция