

**THE MINISTRY OF HIGHER AND SECONDARY SPECIALIZED  
EDUCATION OF THE REPUBLIC OF UZBEKISTAN**

**THE MINISTRY OF AGRICULTURE OF THE REPUBLIC OF  
UZBEKISTAN**

**TASHKENT STATE AGRARIAN UNIVERSITY**

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# **LANDSCAPE GARDENING**

Recommended by the Scientific Council of Tashkent State Agrarian University as a manual for bachelors studying 5411200 „Landscape gardening and landscaping“.



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This “Landscape Gardening” teaching manual is designed for 5411200 - Landscape gardening and landscaping education. The teaching manual considered and approved at the meetings University Educational-Methodical Council (protocol № 4 2022 year 18 November).

## **Аннотация**

Бугунги кунда Республикамиз шаҳар ва қишлоқларини замонавий услубларда кўкаламзорлаштириш, боғ-парк ва хиёбонлар яратиш, ушбу масканларда манзарали дарахт, бута ва гуллардан фойдаланилган ҳолда композициялар яратиш – аҳолини ҳаёт даражасини тубдан яхшилашга қаратилган муҳим давлат тадбирларидан ҳисобланади. Манзарали боғ яратишда яъни кўкаламзорлаштиришнинг асосий компонентларидан бири – бу манзарали дарахт-бута ўсимликлар ва гуллар ҳисобланади.

Ушбу ўқув қўлланма университет ва қишлоқ хўжалиги олий ўқув юр்தларининг 5411200 “Манзарали боғдорчилик ва кўкаламзорлаштириш” йўналиши бўйича таҳсил олувчи бакалаврлар учун мўлжалланган бўлиб, ўқув қўлланмада манзарали боғдорчилик тарихи, манзарали боғ турлари, боғлар яратиш, усуллари уларда фойдаланиладиган манзарали дарахт-бута ва гуллар, манзарали нинабаргли ва япроқбаргли дарахтларга ва буталарга манзарали шакл бериш, композициялар яратиш, экилган кўчатларни парваришlash усуллари келтирилган. Ушбу ўқув қўлланма ўрмон хўжалиги ва кўкаламзорлаштириш-ободонлаштириш корхоналари мутахассислари, фермерлар, магистрлар ва бакалавр талабалар учун мўлжалланган.

## **Аннотация**

Сегодня озеленение городов и сел республики в современных стилях, создание парков и аллей, создание композиций в этих местах с использованием декоративных деревьев, кустарников и цветов – один из важных государственных мер, направленных на кардинальное повышение уровня жизни населения. Декоративный сад - одна из главных составляющих ландшафтного дизайна, основным компонентом которого является декоративные древесно-кустарниковые растения и цветы.

Учебное пособие предназначено для бакалавров, обучающихся в университетах и сельскохозяйственных вузах по направлению 5411200 «Декоративное садоводство и озеленение», в нем приводится история декоративного садоводства, виды декоративных садов, способы создания садово-парковых

комплексов, ассортимент декоративные деревьев кустарников и цветов, формирование декоративных крон хвойных и лиственных деревьев, кустарников, создание композиций и виды ухода за посаженными саженцами.

Учебное пособие предназначено для специалистов лесного хозяйства и ландшафтного дизайна, фермеров, магистров и студентов бакалавриата.

### **Annotation**

Today, greening of cities and villages of the republic in modern styles, the creation of parks and alleys, the creation of compositions in these places using landscape trees, shrubs and flowers is one of the important government measures aimed at dramatically improving the living standards of the population. An landscape garden is one of the main components of landscape design, the main component of which is landscape trees and shrubs and flowers.

The textbook is intended for bachelors studying at university and agricultural universities in the direction 5411200 “Landscape gardening and planting of greenery”, it provides the history of landscape gardening, types of landscape gardens, ways of creating garden and park complexes, an assortment of decorative trees, shrubs and flowers, the formation of decorative crowns coniferous and deciduous trees, shrubs, the creation of compositions and types of care for planted seedlings.

The study guide is intended for forestry and landscape design professionals, farmers, masters and undergraduate students.

## INTRODUCTION

The large-scale reforms implemented during the years of independence have become an important basis for strengthening national statehood and sovereignty, ensuring the rule of law, human rights and freedoms, interethnic harmony and religious tolerance in society. Necessary conditions have been created for a decent life of our people, large-scale creative work of our citizens, landscaping, creation of architectural landscape compositions.

In addition, in the years of independence, landscaping and landscaping of cities and villages of Uzbekistan are important state measures aimed at radically changing the living conditions of the people.

February 17, 2017 according to the Decree of President Sh.M.Mirziyoyev “On the Action Strategy for further development of the Republic of Uzbekistan” to further increase the effectiveness of reforms, create conditions for comprehensive and accelerated development of the state and society, increase is important.

Decrees of the President of the Republic of Uzbekistan and government decrees pay special attention to landscaping and beautification of residential areas.

One of the most important tasks of landscaping is to create a healthy and fully aesthetically pleasing natural environment for human life. In this sense, the field of landscaping works in partnership with landscape construction and landscape architecture.

Thus, landscaping is a field of organizational work with a volumetric and remote approach to the regions, using natural landscape garden plants, as well as architectural and engineering structures.

Resolution of the Cabinet of Ministers No. 59 of March 9, 2009 approved the “Rules for the organization of landscaping of settlements, taking into account the requirements of modern architecture and urban planning”, and Resolution No. 223 of August 13, 2013 adopted the “Program of landscape design development in Uzbekistan”. and the tasks set out in it are being implemented step by step [2, 3].

In recent years, the city of Tashkent has created gardens for different countries, such as landscape compositions, Japanese gardens based on landscape trees and shrubs, a pond garden, CITI garden parks. The Botanical Garden and Zoo have been reconstructed. In the system of urban landscaping, the planting of landscape conifers and evergreen

shrubs has increased. One of the main directions in the development of landscape gardening in Uzbekistan is to increase the range of species of trees and shrubs that are biologically resistant to urban conditions for landscaping. Perennial and flowering shrubs are also one of the most important components of landscaping.

In cities and villages, landscaping trees and shrubs play an important role in landscaping and shaping the landscape environment for landscaping.

Pine, spruce, biota, metasequoia, linden, frankincense, bagrian, oak, sharp-leaved maple, tulip, deciduous trees, suitable for planting in gardens and parks, durable and long-lasting and with a valuable scenic appearance. Particular attention should be paid to the planting of varieties such as magnolia, catalpa, linden, sophora, pissardi plum, small-leaved slate, landscape shrubs such as spirea, magonia, boxwood, eonymus, simple lilac, Indian lilac, forsythia, yucca, viburnum, viburnum opulus, rosemary.

Among the fast-growing tree species used in landscape gardening are poplar, white birch, willow, especially willow, and for the southern regions, sophora, white acacia, gymnocladus dioicus, ailanthus, maple and others. Decorative and deciduous trees with many landscape shapes: pyramidal, spherical, hanging (willow), spiral, columnar, shaped, are important in the decoration of cities and residential areas, monumental landscaping.

Today, large-scale construction and beautification works are being carried out in all cities and villages of the country.

Accordingly, the design of the environment around these construction sites in accordance with modern requirements, the implementation of scenic gardening and landscaping in the regions on the basis of innovative ideas and best practices are of practical importance.

# LANDSCAPE GARDENING

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## CHAPTER I. INTRODUCTION

### THE CONCEPT OF SCIENCE

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Human has appeared, he is enjoying the blessings of nature, its beauty. This means that man and nature are closely intertwined. In ancient times, primitive people tried to find food and disease-growing plants that grew around their ears.

Nature's wrapping in a lush green robe is in harmony with the colorful flowers, leaf branches, and changes in their body structures that unfold in her bosom. Flowers attract people with their variety and fragrance.

The desire and interest in flowers is inherent in man and is a sign of innate love for nature that has been passed down through the generations. Beautiful landscapes, flower beds lift the human mood, refresh the spirit and give an aesthetic taste. In addition, the ability to enjoy these beauties is a sign of a person's culture and aesthetic criteria, to feel it more deeply and to form the right attitude to it.

It is also known from archeological excavations that the peoples of the ancient world used plants as food, medicinal and landscape plants. The peoples of Iran, India, Japan, Central and South America have long used large and open-flowered wild plants, as well as medicinal plants, to suit their needs. With these plants they decorated the places where they lived and they used them in medicine.

In addition to giving people aesthetic pleasure, flowers planted in gardens and parks deserve great sanitary importance, such as protecting towns and villages from smoke, exhaust gases, and the like. Many plants have phytoncide properties (volatile substances released from the plant that kill bacteria). Gardens and alleys are a unique artery that cleans the city air. Trees and shrubs regulate the use of a range of temperature fluctuations, increase air humidity on hot days, have ameliorative and water-retaining properties. Evergreen plants play an important role in combating certain conditions that occur during various production processes, and especially in street noise (reduction).

Properly organized floriculture is a highly profitable network for use

in landscape gardening. Therefore, floriculture, like other sectors of agriculture, must be developed on the basis of increasing production productivity. In order to successfully solve these problems, specialists in the field and florists must further enrich their knowledge, cultivate more widespread landscape plants, increase their varieties, improve agricultural techniques. Studies conducted by our scientists show that even a thousand years ago there were apricots, peaches, plums and similar fruit and landscape plants.

According to scientists, the first man-made landscape plants were lotus (lily) flowers with roses. According to ancient monuments, these plants were used in society 5.5-6 thousand years ago, and lilies and chrysanthemums 4,000 years ago. An image of a rose was discovered by scientists on the island of Crete 3,500 years ago. In general, the spread of these flowers began 1000 years ago and reached Mesopotamia, India and Rome. In ancient Greece, the rose was dedicated to the goddess of beauty, Aphrodite, and her pyramid was surrounded by beautiful gardens made of roses.

The stone inscriptions found in Tel-El-Amaran indicate that landscape trees were planted along the roadsides. The “hanging gardens” are located in four-story spacious towers, on the porches of which are planted palms, cypresses, fruit trees, unique landscape plants, flowering plants. Information about the ancient Solomon Gardens, with its fruit trees, flowering plants, and even rare birds, has come down to us.

Water gardens have a special place in the scenic gardening of ancient Egypt. In the square pools in front of the Palace of the Pyramids, magnificent white and blue lilies and lotuses of Egypt are grown. In Italy, landscape gardening is developed a little differently. In Rome, flat roofs and balconies were traditionally decorated with potted flowers. (Holiday of Adonis).

There are fish hanging pools on the roofs. Before the Common Era, the Persians were the first to breed parks with beautiful pools, a variety of exotic flowers, and landscape trees. Sometimes the Persians called it a “zoo” because these gardens also contained wild animals.

The emergence of landscape gardening in East Turkestan is inextricably linked with the origin and development of soil science, gardening, vegetable growing in the peoples of the Middle East. These peoples have established trade and cultural ties with Afghanistan, Iran, India, and Asia Minor. This is evidenced by the great Silk Road passing

through the cities of East Turkestan.

The paintings on the walls of the pyramids, old inscriptions from different periods of history give us information about the flowers, vineyards and gardens of this or that country. For example, historical monuments of the X-XIV centuries show the prosperity of the Uyghur state. The life and living conditions of the Uyghur gardens are sealed in the paintings on the walls.

In the countries of the Far East, Southeast Asia, especially in Korea, Japan, Vietnam, the unique art of gardening has been living since the XIII century. The peoples of these countries have accumulated a very rich variety of such plants as they have developed unique ways of decorating with landscape garden flowers.

Types of small (small) plants include subtropical pine and deciduous trees and shrubs. Chrysanthemum is the main flowering plant in Japan and China. In the middle of the XIII century in the cities of Central Europe began to organize special rooms for various exotic plants. On the Rhine, the first attempt was made to create a winter garden. At that time, the use of exotic plants in the landscaping of rooms was a new impetus for the development of landscape gardening.

Botanical gardens were established in 1400 in Florence, in 1530 in Mantua, Rome and other cities. These gardens are better than the gardens in Semiramis, according to famous architects G. Gollvittsev and V. Wirsing. In Prussia, Emperor Frederick III, King Charles V of France, and his son Philip II planted gardens in their palaces of orange, lemon trees, and various medicinal herbs, and in special aquariums they bred rare fish and even khan fish. In the late fourteenth and early fifteenth centuries in Europe, the main species of landscape plants were buttercups, tulips, daffodils, violets, lilies (bulbs), lilies of the valley, lilies of the valley. These are mainly European flora and some plant species of the Middle East, consisting of some plant species of Asia and North Africa, gradually became part of them through botanical gardens. Onion-flowering plants also appeared in the botanical gardens. These include tulips, daffodil and roses.

The first ordinary siren plant, cherry and garden jasmine, was brought to Italy from Turkey in the 16th century. Later, flowers, mirabilis, tagetis, as well as some plants of North America were brought to Europe from tropical landscape plants. In the second half of the 16th century, the number of private and public botanical gardens increased

dramatically with the number of imported landscape plant species.

Economically developed countries and some wealthy people organized expeditions at their own expense and sent tourists and scientists to bring plants from distant lands. The number of cultivated plant species in North America increased significantly by the seventeenth century. By this time, European landscape plants included redbeckia, monarda, canada goose outlet, landscape shrubs, some hawthorns, purslanes, and southern camellia. Economically developed countries and some wealthy people organized expeditions at their own expense and sent tourists and scientists to bring plants from distant lands. The number of cultivated plant species in North America increased significantly by the seventeenth century. By this time, European landscape plants included rudbeckia, monarda, landscape shrubs, some hawthorns, purslanes, and southern camellia.

In Europe in the XVII century began to build greenhouses for the care of frost-resistant plants. In a short time, the greenhouses of large botanical gardens housed tropical and subtropical plants imported from the Mediterranean, East and South Asia, Australia, New Zealand, Central and South Africa, India, the Atlantic, and the Pacific Islands.

In Central Asia, gardening was very advanced in the XV-XVIII centuries. In addition to fruit and landscape trees in the gardens, G.A. Pugachenko writes that a special place is given to various herbaceous flowers and greenery, which is a characteristic feature of Central Asian gardens and alleys, radically different from European gardens.

In connection with the opening of the Samarkand School of Gardeners in 1903, a dendropark consisting of 50 species of trees and shrubs was established on the territory of this school. This garden is planted with silver and blue fir, mammoth tree, tulip tree, American black pine and so on. Today, very few of them produce seeds and fruits adapted to the conditions of Uzbekistan.

**Status and development of landscape gardening and floriculture in Uzbekistan.** Floriculture entered our republic from the Far East through China and India via the Great Silk Road and spread first in Samarkand, then in Bukhara, Kokand and other cities.

Since 1920, a 12-hectare botanical garden has been established at the Central Asian State University, where more than 60 flower varieties have been grown. After the number of flower varieties was increased to 300, the garden was transferred to the academy in 1943 and a new botanical

garden was established, covering an area of 80 hectares.

Since 1962, botanical farms have been established in seven cities of the Republic - Andijan, Angren, Almalyk, Bukhara, Samarkand, Fergana and Urgench. The area of these farms was 592 hectares. By 1977, 15 botanical plants were established in the Republic of Uzbekistan. The largest of them, the Tashkent Floriculture Organization, had a sown area of 1,279 hectares. The area of glazed heated buildings was 5.9 hectares.

In 1980, a floriculture laboratory was established in the Botanical Garden, where more than 2,000 flower varieties were grown.

Doctors of sciences, professors F.N. Rusanov, Z.F. Bachanieva, Pechenitsyn, candidates of sciences P.K. Ozolin, L.K. Kravchenko, A.K. Kyatkin, A.X. Sharipov, L.A. Abdurahmonov who have made their worthy contribution.

Today, the academician of the Institute of Botany of the Academy of Sciences of the Republic of Uzbekistan, Preservation of flora and fauna of the Tashkent Botanical Garden named after F.N. Rusanov is aimed at increasing their biodiversity, can. of Biological Sciences S.Kh. Abdinazaov, Head of the Laboratory for the Introduction of Plants of Natural Flora, (Ph.D). Turgunov M.D., Head of the laboratory of dendrology, (Ph.D). Temirov E.E., Head of the Laboratory of Introduction of Medicinal and Landscape Plants, can. of botanical science Berdibaeva D.B., Head of the production and nursery department Khalmurzaeva A.I., senior researcher, can. of botanical science. N.K. Rakhimova, their services on this issue are incomparable (2021).

In our independent Republic, great attention is now paid to floriculture. It is entering the daily life of the people of Uzbekistan and plays an important role in the lives of the city's population.

Scientists of the Tashkent Botanical Garden and the M. Mirzaev Scientific Research Institute of Fruit, Viticulture and Enology are making invaluable contributions to the decoration of the cities of the country with beautiful and diverse flowering plants and the transplantation of seedlings.

### **Control questions**

1. Explain the role and purpose of landscape gardening as a science.
2. Explain the history of scenic gardening and floriculture.
3. The spread of landscape gardening and floriculture in foreign countries.

# LANDSCAPE GARDENING

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## CHAPTER 2. THE MODERN STATUS OF LANDSCAPE GARDENING IN FOREIGN COUNTRIES

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Based on the research conducted in our country, the experience gained in a number of foreign countries is analyzed. In many countries, the field of landscape gardening is carried out mainly through landscape design and the cultivation and sale of individual seedlings.

For example, the Ministry of Agriculture of the Russian Federation has developed a “Strategy for the Development of Industrial Gardening”, on the basis of which a Target Program has been developed and on the basis of these documents the “Strategy for the Development of gardening in the Russian Federation until 2020” has been adopted. Most of the scenic gardens of Spain from European countries are organized in the Arab tradition - enriched with small elongated fountains and ceramic ornaments.



**Picture 1. Gardens by the Bay garden in Singapore**  
[https://j.etagi.com/stati/interesnoe/modern\\_park/](https://j.etagi.com/stati/interesnoe/modern_park/)

The collection of perennial algae and plants is housed in 14 patios in the Palacio de Viana Garden, each decorated in its own style. The central part of the exhibition is occupied by the Palace Garden. Among them, the "recreation parks" of Alcazar, Mauritania are very popular.



**Picture 2. *Gardens by the Bay* Garden in Singapore**

A characteristic element of the Italian garden is the PATIO (a scenic structure surrounded by a wall of greenery), the sculptural formation of fountains, flower beds and alleys that rise several steps and are close to the house is very emotional.

Versailles is one of the most famous gardens, designed by architect Lenotre, the landscape garden is the splendor of a true French garden, the combination of Baroque classicism is the subject of many imitations. English flower gardens in the UK are one of the most beautiful in Europe. In England, climatic conditions made it possible to perfect the art of landscape gardening. The walls around the houses are decorated with numerous varieties of lianas. The tradition of landscape gardening has existed in Germany for a long time.

The population is very interested in landscape design, each of which creates a beautiful garden, even if it has a small area of land. The villagers are also engaged in landscape gardening. In front of their house you can see beautiful green walls, there will also be a lawn and flowers.

The townspeople set up a beautiful garden in front of their house. It belongs to the modern direction of Dutch garden stylistics. In most cases, the size of the area does not matter.



**Picture 3. Landscape design in the interior**

The abundance of stones and the trees are beautifully cut and shaped to enhance the landscape. As an integral element of the landscape design, the small courtyards are lined with lianas.

The functionality of the zones in the regular garden area of France is characterized by the predominance of building the house in the classical style, the abundance of lawns (lawns) and evergreen trees, creating a new shape by cutting their shape.

In all European countries, they create stunning beauties in the field of landscape gardening and landscape design.

There are more than a hundred educational institutions in Europe that train specialists in landscape design. Rating:

England, Denmark, Germany, Spain, the Netherlands, France, Switzerland, Scotland have the best specialized universities.



**Picture 4. A composition composed of landscape algae**

In Japanese gardens from Eastern and Asian countries, folk culture is at the heart of the garden's landscape design, in which religion and philosophy are intertwined, filled with various elements.

Bridges across the lakes, stone compositions are arranged in the Japanese garden in such a way that each place has its own place.

Chinese scenic gardens are constructed and obeyed according to the laws of harmony and balance (feng shui laws) that are in harmony with human nature. In the landscape design of a Chinese garden, each plant has its own specific meaning.

The overall composition, on the other hand, strives for a general concept of the ideal balance of elements between water and land.



**Picture 5. The composition of lianas in the interior**

### **Control questions.**

1. Strategy for the development of landscape gardening in the Russian Federation.
2. Development of landscape gardening in European countries.
3. The attitude of the rural population to landscape gardening in European countries.

## LANDSCAPE GARDENING

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### CHAPTER 3. STRATEGY FOR THE DEVELOPMENT OF LANDSCAPE GARDENING IN UZBEKISTAN

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On the basis of the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 76 of March 2, 2005, the Republican Research and Production Center for Landscape Gardening and Forestry was established on the basis of the Forestry Research Institute. The main activities of the center are:

- carrying out research work on forestry development;
- development of scientific bases for the establishment of protected forests in the mountains and foothills of the republic, deserts and hills, on the dried bottom of the Aral Sea;
- protection of cultivated forests from diseases and pests;
- development of a mechanism for standardization and certification of landscape tree seedlings and a strategy for the development of landscape gardening.

In developing the strategy for the development of landscape gardening, based on the soil and climatic conditions of the republic, it is planned to create new nurseries on the basis of modern technologies for growing landscape plants, increase the number of trees and shrubs suitable for the climate, and use them in urban and rural landscaping.

It also focuses on the range of main species required in the landscaping of regional towns and villages, taking into account the types of seedlings most in demand by the local population, seedlings sold in local markets, their quantity and purchase price.

As an example, Table 1 shows that the main seedling species are deciduous (64%). This is due to our climatic conditions and the need for summer heat and shade. In our mountainous and valley areas, mainly coniferous (23%) seedlings are planted. Shrub species (13%) are grown mainly for landscaping (Table 1 on the example of the Center under the Forestry Research Institute).

In order to reform this sector, a new strategy has been developed, new directions have been introduced, such as increasing the number of landscape species, enriching them with coniferous, rare, shaped seedlings, growing closed-rooted seedlings in baskets and pots.

**Analysis of indicators of production enterprises of the central system for the cultivation of landscape trees and shrubs in 2010-2014**

Table 1

№	Types of seedlings	Over the years					Total in 5 years	%	Average every year
		2010	2011	2012	2013	2014			
1	Needle leaves	381,86	204,80	264,59	259,6	327,94	1438,87	23	287,77
2	Leafy	1296,73	535,45	702,2	730,3	742,39	4007,15	64	801,43
3	Shrubs	141,83	126,82	171,13	181,2	176,61	797,68	13	156,34
<b>total:</b>		<b>1820,42</b>	<b>867,08</b>	<b>1137,9</b>	<b>1171,3</b>	<b>1246,9</b>	<b>6243,7</b>	<b>100</b>	

A total of 94 forestries operate in the system of the State Committee for Forestry (2016). Karakalpakstan Forestry Department, 6 Republican organizations, 59 forestries, 5 specialized forestries, 5 nature reserves, 1 national nature park, 1 BIOSfera reserve, 5 forestries, including 4 forests in the central system production enterprise, 1 special state forestry, 6 experimental stations and 1 state enterprise “Ormonmash”.

Every year, more than 100 nurseries in the system organizations spend 50 million soums for reforestation, restoration, establishment of protective forests, beautification and landscaping. more than a variety of seedlings of various forest, landscape, rare trees and shrubs are grown.

In our country, the cultivation of seedlings of landscape plants is widespread in entrepreneurs, private and farms. According to the analysis, more than 80 species of landscape seedlings are grown in Tashkent, Tashkent region, Surkhandarya, Samarkand, Kashkadarya, Namangan, Andijan and Fergana regions, and seedlings of rare plants are imported from abroad. There are pros and cons to this situation.

1. Cultivated and imported seedling species are brought to our territories without taking into account the climatic conditions, along with which they cause the entry and multiplication of various insects and pests.

2. Species that predominate in the plant gene pool are gradually disappearing, leading to the displacement of native species and species that are adapted to our climatic conditions. (species such as incoming white birch, aspen).

3. In recent years, a great deal of attention has been paid to the planting of conifers from foreign landscape species, with a sharp decline in the planting of native deciduous species that protect from sunlight, dust, salt particles, and city noise.

As a result, there is an increase in allergic and solar radiation

diseases. The development of landscape gardening in the country should be formed as a single system with interaction with producers, entrepreneurs, saplings and consumers. The main direction in this regard is determined by the strategy for the development of landscape gardening.

In the Republic, it provides services such as identification of saplings in each region, the opening of Internet sites in the system of the Center, the integration of scientific research with production, consulting and practical assistance in the field.

The task of this strategy is to determine the main directions of the country's landscape gardening, meet the demand for landscape seedlings, increase the number of quality landscape seedlings by using land, efficient use of material, technical, labor and financial resources and high profitability.

The Strategy for the Development of Landscape Gardening (hereinafter referred to as the Strategy) is designed to introduce the achievements of the republic and foreign countries in the field of landscape gardening strategy, innovative ideas and the development of new technologies for the cultivation of landscape seedlings.

The strategy includes technologies for growing seedlings of pistachios, Crimean pine, metasequa trees in closed root polyethylene bags, technology of rapid cultivation of species such as fake chestnut, Japanese sophora, sage, linden, white birch, hibiscus. The results of scientific projects such as Measures have been taken to introduce methods of growing seedlings and flowers in baskets and pots of foreign countries, growing large-scale seedlings in the fields in accordance with the climatic conditions of our regions.

For the first time in this strategy, the procedure for establishing a model nursery and its evaluation system is being introduced. This will ensure the cultivation of high-quality seedlings in the country, along with the reproduction of rare and landscape species through the establishment of exemplary landscape nurseries, and a system of permanent control over the seedlings grown. In addition, a system of financial incentives for workers in the industry will be formed and will increase the productivity of workers.

The main purpose of the establishment of exemplary landscape nurseries is to create a unified system of nurseries by reforming the field of landscape nursery, permanent and temporary important sections of nurseries (seed and cuttings, nursery, nursery, large seedlings, shaped

seedlings, mother plantations, ready-to-sell seedlings areas, etc.), the introduction of standard seedlings and seedlings, as well as fumigation systems in farm nurseries.

This initiative, introduced by the Center, will be implemented in all farms of the General Directorate of Forestry in an improved form, depending on the results achieved.

In a modern market economy, the market has the greatest impact on the landscape horticultural activity of farms. The market provides the manufacturer with information about the quantity, range, quality and direction of production and the nature of change.

### **Peculiarities of landscape gardening:**

Landscape trees and shrubs depend on natural climatic conditions and geographical origin, and this situation requires them to pay close attention to the preservation of scenic features and the selection of specific areas;

More than 90% of landscape saplings grown in the forestry system are intended for sale and planting in areas outside the forest fund for landscaping purposes;

Constant demand for landscape seedlings grown during the year is not guaranteed by the state, landscaping of city, district centers, individual facilities is not guaranteed only by planting seedlings from forestry organizations and full payment of costs;

During the year there is an increase in the demand for continuous planting of seedlings and the cultivation of large-scale seedlings;

Prompt capture of the market and the cultivation of seedlings of landscape trees and shrubs required by legal entities and individuals by private farms and entrepreneurs;

There are problems with the export of rare and landscape seedlings and saplings grown in the country for various reasons;

The volume of imports of unique and landscape seedlings from foreign countries is growing, which reduces the need for their cultivation in our country.

Satisfying the market demand for landscape seedlings is solved by implementing the following measures:

To study the constant market demand for scenic species and adapt to meet the rapid demand;

Establishment of large (10-50 ha) nurseries for growing landscape seedlings on the farms of the center;

Mechanization of works and introduction of modern technologies;

Establishment of large-scale and landscape tree and shrub nurseries;  
Establishment of cost-effective cultivation of new landscape seedlings using intensive genetic engineering and biotechnology methods;  
State guarantee of delivery of seedlings grown on the farms of the system to various state facilities;  
Organization of landscape seedling markets in each region;  
Control over the implementation of seedling quality certification system;  
Update the existing material and technical base;  
Scientific substantiation and application of care and agro-technical processing of planted landscape seedlings;  
Introduction of new innovative projects and establishment of foreign cooperation.

In order to address the above measures, a strategy for the development of landscape gardening for 2016-2020 has been developed. This strategy will create a single 5-year system for the cultivation of landscape, unique trees and shrubs in the production facilities and experimental stations of the Center. In particular:

The volume of landscape seedlings will increase 4 times compared to 2015 or 4 million 219 thousand units in 2016, and 6 times or 6 million in 2020. In addition to the increase of 192 thousand units, it is planned to increase the number of new plant species, climate change, based on market demand.

A sharp increase in the number of landscape tree species, including rare coniferous species - blue spruce, blue cypress, Crimean pine, sabina spruce, thuja, deciduous species - tulip tree, ziziphus, white birch, chestnut, mulberry, silk acacia, desert and for the propagation of landscape seedling species for sandy areas.

Among the new directions: - palms, roses, flowers grown in pots at home, the cultivation of seedlings in the bonsai method, pots and baskets, the exact amount of reproduction of large-sized and shaped seedlings.

Particular attention is paid to the cultivation of seedlings of walnut, culturally grafted (pistachio, almond, walnut).

A permanent group of scientists of the Center has been established among the executors responsible for the implementation of activities in the areas of disease and pest control, implementation of agro-technical measures.



**Picture 6. Landscape evergreen buxus composition**

In order to link production with science, the Darkhan Experimental Farm of Tashkent region was selected as a scientific and practical base, where new unique landscape species will be tested and agro-technical measures for their cultivation will be developed, taking into account the climatic conditions of each region.

### **Available in the field of landscape gardening development problems and perspective directions**

In the development of landscape gardening, taking into account the biological and physiological characteristics of landscape plants, it is necessary to select tree-shrub species that can adapt to the climate of the region, regardless of where they are planted.

There are the following perspective directions in the development of landscape gardening:

Extensive landscaping and design work on landscaping, creating a favorable microclimate for cultural recreation of the population, expanding the scope of live landscapes and green areas and landscape design work for the aesthetic enjoyment of vacationers;

Establish cooperation with the Republican Research and Production

Center for Landscape Gardening and Forestry and the Republican Center for Forest Seed Production, “Uzgiptoo’rmonloyiha” and the Training Center for the development of landscape gardening and forestry;

Establishment of a laboratory “Forest Biotechnology” in accordance with international standards at the Republican Research and Production Center of Landscape Gardening and Forestry. Implementation of research projects based on genetic engineering and biotechnology in this laboratory.

Introduce in vitro propagation of unique landscape plants. Only the financial and moral support of the Center's management and the Ministry is needed to address the above issues.

In order to implement the Strategy for 2016-2020 at a high level, it is planned to use domestic and international grant funds, and as a result will closely assist in the production of financial support.

### **The urgency of improving the field of landscape gardening and landscaping education**

Decrees of the President of the Republic of Uzbekistan and government decrees pay special attention to landscaping and beautification of residential areas.

One of the most important tasks of landscaping is to create a healthy and complete aesthetic natural environment for human life.

The concept of innovative development of the Department of “Landscape Gardening” for 2020-2030 Resolution of the President of the Republic of Uzbekistan dated August 19, 2019 No PQ-4421 “On measures to further improve the activities of Tashkent State Agrarian University”, Ministry of Agriculture dated August 20, 2019 No 126, Developed in accordance with the order of the Ministry of Higher and Secondary Special Education No. 750 of August 22, 2019 and the rector of the Tashkent State Agrarian University No. 28-9 of August 28, 2019 №1-9-6 / 705. This concept determines the further development of educational, scientific and practical work on improving the system of training highly qualified personnel at the Department of “Landscape Gardening” for 2020-2030.

This concept envisages the main directions of development of the department of “Landscaping” in the long run, the measures taken for their implementation, the indicators of the achieved results.

The concept pays special attention to improving the quality of

training at the Department of “Landscape Gardening”, the development of research and innovation, strengthening the material and technical base of the department and ensuring the integration of science and industry at the department.

Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 59 of March 9, 2009 “Rules for the organization of landscaping of settlements, taking into account the requirements of modern architecture and urban planning”, and Resolution No. 223 of August 13, 2013 “Program of landscape design development in Uzbekistan” The tasks adopted and defined in it are being implemented step by step.

In accordance with the Decree of the President of the Republic of Uzbekistan dated September 11, 2017 No PF-3262 “Measures to improve the system of architectural and landscape construction and landscaping of roads” the program “Landscaping of roads, including public roads in 2018-2020” *Uzlandscaping* department was established. For 3 years, this organization has been tasked to plant more than 1.6 million bushes of landscape trees and shrubs, 782,000 trees and shrubs on the city streets.

### **Information about the establishment of the Department of Landscape Gardening, Tashkent State Agrarian University**

Department of Landscaping and Gardening of Tashkent State Agrarian University in accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated November 3, 2015 No 311 “Measures to further improve the provision of highly qualified personnel in agriculture and water management” -9-2 / 431 was established within the Faculty of Forestry and Medicinal Plants.

Currently, the department of landscape gardening has 11 staff members, the department has 2 professors, 4 associate professors, 1 senior teacher and 4 assistants (2021), and the scientific potential of the department is 60%.

Tashkent State Agrarian University, Department of “Landscape Gardening and Landscaping” undergraduate education is as follows:

5411200 - Landscape gardening and landscaping

Master's specialties of the department:

5A411201 - “Landscaping and landscape design of residential areas”;

5A411202 – “Landscape gardening”.

### **Control questions**

1. Peculiarities of landscape gardening:
2. Current problems and prospects in the field of landscape gardening.
3. The urgency of improving the field of landscape gardening and landscaping education.

# LANDSCAPE GARDENING

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## CHAPTER 4. FRAGRANT PLANT GARDENS

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We perceive the world of plants around us not only by seeing, but also by hearing, touching and smelling. Accordingly, in the garden, first of all, we see shapes, colors, but we hear sounds and smells. All this creates a holistic view of the perception of a fragrant garden.



**Picture 7. Composition of flowers**

However, the smell of annual or perennial grasses, flowering trees, shrubs, the fragrant smell of flowers play an important role. Indeed, the pleasant smells in the garden significantly enrich the perception of landscape objects, emphasize the change of seasons, create a mood for people who are similar to the environment. Numerous landscape trees, shrubs, herbaceous flowering plants, which form a suitable space in the fragrant garden, are also distinguished by the fragrance of the ambient weather. The scent of landscape plants in the garden enriches the impression of people and emphasizes its uniqueness.

You can create a fragrant scenic garden as you imagine. In particular, you can make your garden fragrant all season long if you

wish.

At different times of the year, the garden takes on a different hue. In the spring it is based on the fragrant scent of saffron and hyacinth, in the summer the scent of roses, some annuals and perennials.



**Picture 8. Flower composition of different colors**

In the garden, the freshness of basil and roses can be felt only in the change of seasons.

At the entrance to the scenic fragrant garden buildings to be built, or near the benches, it is advisable to place fragrant plants. In particular, spring flowers can be used daffodils, peonies and other types of flowers. Among the landscape shrubs, of course, the use of different varieties of roses, in the first place, is of great importance.

It is also advisable to enrich the fragrant scents on the basis of stone compositions. Filling these rocky compositions with landscape shrubs such as the young eastern camel (*Thuja orientalis* L.) and razmarin (*Rosmarinus officinalis* L.) increases the importance of biodiversity. By the way, these plants not only fill the air in the garden with a fragrant scent, but also help to emphasize the sincere, lyrical image of the place.

Blooming lily flowers are usually associated with spring, love and the first date with most of us, random lilies and roses stand out from the humid environment of warm summer evenings in the garden.



**Picture 9. An annual form of peony**

If the garden area is small, then you can plant fragrant plants anywhere, including basil, carnations: in front of the garden, at the entrance to the house, along the walkways, around the main buildings of the garden, under the bedroom windows, along open watering cans, alone - will need to be placed individually or in groups.

If the garden area is large and you are located in a place where you can always walk or relax, it is advisable to use moss and lichen plants in the natural fountain in the resort. These fragrant gardens are specially created for sitting, relaxing and enjoying the pleasant smells for the purpose of cultural recreation.

In the garden, a pergola surrounded by fragrant roses, ivy can be placed benches next to it.

You can usually fill the fragrant garden with fruit trees - cherry, apricot, pear, apple trees. All of these plants belong to the family Rosaceae.



**Picture 10. A landscape composition of a fragrant garden built on the basis of peonies, roses and landscape flowers**

The flowers of these plants have wonderful delicate scents that fill everything around them. But it is advisable to plant fragrant trees in rows in parks or alleys.

Sufficiently large and small specimens of conifers can be planted together in the fragrant garden, along with landscape annual and perennial flowers and shrubs. In shaping the idea of such a garden in a small area, the combination of spruce and different spruce species in the form of contrast with flowers enhances the beauty of the garden.

To do this, the flowers in the fragrant garden should be placed on a project basis according to their biological characteristics, so that the pleasant aroma of the flowers will delight you from spring to autumn.



**Picture 11. Seasonal flower composition**

Accordingly, it is important to divide the allotted garden area by povelon paths surrounded by a few flowers.

The assortment of plants is selected taking into account the characteristics of height, flowering periods, color index, fragrance (flower species, lily, geranium, etc.).

It is important that visitors to the garden always feel pleasure. To do this, make more use of flowers such as roses and peonies among the fragrant.

Actinidia, lemon, clematis, rose species, hookah, camellia, carnation and similar plants have a pleasant aroma. They decorate the square with their appearance and give a romantic charm.

And finally, in any, even the smallest, scenic garden, it is impossible to imagine a hot summer day without herbs that fill the garden with fragrant scent. Accordingly, the use of Mauritanian lawn is expedient, as its composition consists of grasses (pasture rye-grass, bent grass, meadow grass).



**Picture 12. The perennial form of the peony tree**

The effects of scents in the fragrant garden on a person have not only an aesthetic but also a healing effect. The importance of a scenic fragrant garden is high in medicine and in relieving stress at home after a long day of work in various fields. No deodorants and fragrances can replace natural fragrances.

Therefore, the benefits of walking in the garden or through the woods over the weekend and enjoying the fragrant scents of flowering plants and herbs are invaluable.

### **Control questions**

1. Give an example of an annual fragrant flower.
2. Give an example of perennial fragrant flowers.
3. The impact and importance of fragrant gardens on humans.

# LANDSCAPE GARDENING

## CHAPTER 5. MODERN YARD GARDEN

The problem with many modern gardens we know is that they are lovely, but there is no interesting antique novelty in the garden that attracts people! A modern garden should have ideas, styles, even philosophies, as well as an interior that is important to every little one. It's not enough to plant all your favorite flowers at once, you need to think about what goal you set for yourself.

For example, if it is a private small garden for a family, it is important to help improve family relationships, connect with them, and align their interests.



**Picture 13. Landscape design in the interior**

If it is in a downtown area, it should be convenient to spend time with colleagues during lunch, and if it is a very large park, it would be good to provide walking areas and places for private life that are far from each other. And each problem is solved by the colors of their plants, the flowers.

In the picturesque modern garden, the year-round flowering and beauty of the landscape plants are very pleasing to the visitors. Of course, this is easier to achieve in the climatic conditions of Uzbekistan, but you can always find a way to do it.



**Picture 14. Landscape design in the interior**

If the flowers dry out in the winter, then evergreen shrubs will replace the flowers and decorate the garden even in snowy weather, and you can also use figurines, stone compositions: stones and plants complement each other and show beautiful alpinaries, with their help you you can create many compositions.

In the process of creating a modern garden composition, it is always necessary to pay attention to clarity and graphics: the use of simple, clear forms, including regular, landscaping techniques is important.

This modern courtyard garden is specially created for sitting, relaxing and enjoying the pleasant smells for the purpose of cultural recreation. In the garden, in the modern yard, a pergola surrounded by roses, momordica and its species (*Momordica*) can be placed benches next to it.

You can usually fill a modern backyard garden with fruit trees - cherry, apricot, pear, apple trees. All of these plants belong to the family Rosaceae. You can place these plants according to the condition of the field. (<https://roomble.com/ideas/soveti-i-idei/za-gorodom/kakim-dolzhen-byt-sovremennyj-sad-sovety-ot-metra-landshaftnogo-dizajna/>)



**Picture 15. Landscape design in the interior**

But in a modern backyard garden it is advisable to plant trees in rows in parks or alleys, in a modern backyard garden it is important to plant enough large and small specimens of conifers, along with landscape annuals and perennials and shrubs.

In shaping the idea of such a garden in a small area, the contrast of oriental juniper, spruce and different spruce species with flowers at the edge of the garden enhances the beauty of the garden.

To do this, the flowers in the garden should be placed according to their biological characteristics, so that the pleasant smell of flowers lasts from spring to autumn. However, it is important to separate the allotted garden area with paths surrounded by a few flowers.

The assortment of plants is selected taking into account the indicators of height, flowering periods, color index (flower species, lily, geranium, etc.). Accordingly, it is important that visitors to the garden always feel pleasure.



**Picture 16. Evergreen plants and rock composition**

When creating a garden in the style of landscaping at your discretion, each element placed in the area will have to reflect the naturalness.

However, the landscaping style is characterized by the division of the area into irregularly shaped pieces, the elements are placed symmetrically, the flowers, shrubs and trees are grouped freely, the pools are irregularly shaped, the aisles are shaped like wavy curves.

In the garden, actinidia, clematis, rose species, buldanej, camellia, carnation and similar plants have a pleasant odor. These flowers give the area a splendor and romantic charm with their appearance.

In even the smallest scenic garden, it is impossible to imagine a hot summer day without the grass that fills the garden with its fragrant scent.

Accordingly, it is advisable to use the Mauritan lawn, the composition of which (pasture raygrazi, betega, ordinary white polyvitsa, kurubosh (meadow grass) is based on grass.

Today, the human effects of odors in backyard gardens have not only an aesthetic but also a healing effect. The importance of a scenic fragrant garden to alleviate fatigue in activities carried out in different directions is high.

No fragrances can replace the natural scents of yard garden plants. Therefore, the benefits of walking the weekend in a fragrant garden or forest and enjoying the fragrant scents of flowering plants and herbs are invaluable.



**Picture 17. A composition created around a sports field**

### **CONTROL QUESTIONS**

1. What should be the main focus when creating a modern garden composition.
2. What kind of flowers does a modern gardener use when creating a yard?
3. The importance of modern gardens in landscape style.

# LANDSCAPE GARDENING

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## CHAPTER 6. REGULAR GARDEN

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The formal or regular style of the garden is also called French. And the fact that this style reached its peak in France was formed during the reign of Louis, during the period of absolutism (the monarchy established in France).

Then the regular gardens are distinguished by the fact that they embody the ideas of genius of architectural thinking over beauty, order and nature. It is a process where everyone is clear, thoughtful, examining every element of the garden composition and demonstrating their superiority and ability to capture the compositions around it.



**Picture 18. Regular style composition**

Nowadays, regular gardens are not created very often, most are limited to just a few elements of a simple style or formalize any particular part of the garden in a formal style. In general, creating a simple garden is a very costly process and requires a lot of work and

maintenance for each element.



**Picture 19. Regular style parterre**

The simple garden of the French is the choice of people who prefer the classical architecture of the past. Regular garden sculpture and b. would be a great addition to old-style homes with groups. The main emotional feature of the style is solemnity, richness and grandeur.

We know that first of all the size of the garden plot plays an important role. According to historical tradition, the usual park is a very large area; the whole garden is perceived as an exchange of surprisingly beautiful views with its majestic views. The permanent garden is designed for long walks, where each alley will have a new look at the end.

In addition, all the elements of the summer house should have a solid, compact, strong, impressive size, which makes it difficult to make a landscape, usually in a smaller space. (<http://www.pro-landshaft.ru/style/detail/549/>)



**Picture 20. Regular style composition**

Regular - in style, all elements and objects of landscaping will have a regular or correct geometric shape. Flowers are round, rectangular, rhombic, triangular, etc. The corridors will be in the form of a straight line or a semicircle.

Planting schemes of trees, shrubs and flowers are strictly defined. According to the planting scheme, landscape trees, shrubs and flowering plants of the same species and the same size are selected. Special attention is also paid to the placement of colors as a combination.



**Picture 21. Regular style composition**



**Picture 22. Regular style composition**

<https://skosr.ru/dizayn/sovremenny-landshaftny-dizayn-klassifikatsiya-gazonov.html>

Suitable for flat areas of normal shape. The slope is allowed, but it should be the same, it is very important that it does not break the symmetry. Harmony with architecture. The regular garden is well combined with beautiful buildings with a classic look. Can be used for landscaping near a traditional or European style palace.

Bosket. This is an indoor garden, separated from the rest by a fence or vertical landscape, with landscape shrubs, a flower garden, and so on. It can be used as a recreation area.

Water basins. Often it is the equipment of cascades, fountains, artificial ponds of the correct shape. The shoreline is formed using a walkway. Tower gardening is based on a strict rhythm.



**Picture 23. Regular style parterre**

The company “Positive Project” regularly depends on the landscape design of the garden, because the plants, materials, equipment for landscaping are small architectural forms of landscaping.

### **Control questions**

1. Describe the regular style gardens.
2. Relation of regular style with architectural direction.
3. Explain the formation of water bodies in a regular style.

# LANDSCAPE GARDENING

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## CHAPTER 7. JAPANESE GARDEN

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According to sources, the Japanese garden (a private park developed in Japan) in the VIII-XVIII centuries.

Starting from the first temple (temple) gardens founded by Buddhist monks and pilgrims, the whole beautiful and intricate system of Japanese garden art gradually developed.

In 794, the Japanese capital was moved from Nara to Kyoto. The first parks were like places for celebrations, games and open concerts. The gardens of this period were peculiarly decorated. They planted many flowering trees (plum, olive, cherry), azaleas, as well as climbing plant wisteria.



**Picture 24. Composition in the Japanese garden. Based on glycine.**

In Japan, however, there were gardens made of stone and sand, without greenery. In artistic design, they look like an abstract painting.

The Japanese garden represents the perfect world of nature on earth and is sometimes like a symbol of the universe. The characteristic elements of its composition are artificial mountains and hills, islands, rivers and waterfalls, sand or gravel paths and plots decorated with unusually shaped stones. The landscape of the garden is shaped by trees,

shrubs, bamboos, cereals, beautiful flowering grasses, as well as mosses.



**Picture 25. Japanese horticultural composition.**

The formation of the foundations of Japanese gardening took place under the influence of the evolution of Japanese architecture, as well as the religious and philosophical ideas of the Japanese aristocracy.

Initially, the garden was an integral part of aristocratic settlements, but was later purchased by Buddhist monasteries and noble samurai. Since the 19th century, it has spread among the Japanese and has become an integral part of many private homes.

The three most popular parks in Japan are traditionally Kenroku-en (Kanazawa), Koraku-en (Okayama) and Kairaku-en (Mito). In recent years, Japanese gardens have become very popular.

At the same time, the Japanese garden is primarily focused on philosophy, worldview. In the East, and especially in China and Japan, much attention has been paid to the art of gardening since ancient times.

City parks and gardens in Japan are completely different from what we have seen in Moscow before. In Japanese gardens, other elements are in the spotlight. In particular, here sand, stone, dwarf plants, imaginary streams, stones come first. The Japanese garden is characterized by a mysterious atmosphere, which is the basis of the design of the park.

In the garden in Japan, we are influenced not only by the beauty and perfection of the shapes, but also by the spirit of the things that affect our inner strength that we feel at every step. If you try to move a Japanese

park to another state, then nothing will work. The spirit, the atmosphere - this is the most important thing in a Japanese garden.



**Picture 26. Japanese gardening composition.**

The Japanese park in Tashkent is in the center of the capital, one of the most magical attractions of the city. A unique Japanese island in the middle of a big city!

Pergolas, teahouses, lakes, cozy wooden bridges, a variety of birds - all of these are good expressions of the wishes of the Japanese (desire). People want to come here for a walk or a picnic surrounded by huge greenery and peaceful birds.

When you go to the park, you will be connected to the world of Japanese culture and will be in a state of meditation and calm. Everything inside the garden, of course, is subject to the traditions of the Japanese world, for example, the presence of a pond in the center of the garden is a necessary condition for the construction of any park in the country where the sun rises. The lake draws to its shores, where you can see swimming rugs and goldfish, as well as feeding ducks or clock fish, leaving the rush we face in the modern world.



**Picture 27. Japanese gardening composition.**

However, majestic birds roam the garden, for example, here you can watch peacocks in the bushes. Everything is buried in greenery and there is a smell of greenery in the air.

This park is open from 10:00 to 19:00. The park itself is small but very attractive.

History of creation; The history of the park begins in 1947 with the creation of an alley in the desert in the center of Tashkent. The pit for the lake was created by Japanese soldiers in captivity, and probably the trees in the park were also planted by them.



**Picture 28. Japanese gardening composition.**

The park was officially opened on August 25, 2001. The opening of the park was carried out in cooperation with the Embassy of Japan in Uzbekistan and the Ministry of Foreign Economic Relations of the Republic of Uzbekistan.

Since its opening, the park has become one of the favorite places for both visitors and residents. Currently, the park is located on the territory of the shopping center “Uzexpo-center”.

In the center of the Japanese garden is the Boudin or tea pavilion. When we enter the tea house, we hear a pleasant bell, which serves to scare away evil spirits. The tea ceremony is a unique mystery in Japanese culture, the ceremony itself is called “ty-no-yu” and is associated with an understanding of beauty and enjoyment of serenity.



**Picture 29. Japanese gardening composition.**

There is a national Japanese drum before entering the house. You have to turn it before you go in - with this move you make contact with the gods because the Japanese believe that the gods hear the sound of a drum. According to Japanese tradition, you should also take off your shoes at the entrance - don't worry, it's nice if the carpet touches the floor. Inside the house there is a table where you will find all the necessary tea utensils used for the tea ceremony.

Interestingly, every trophy in Japan falls at a certain time of year. The Japanese themselves love to drink tea quietly. Also on the walls of the house you will see Japanese national costumes. Make sure you take pictures in this wonderful house!

Go through the house and you will go to a small pool where the fish swim. How nice to sit on the edge of the patio, watching the fish carefully!



**Picture 30. A composition made of bushes**

In the garden we meet a wonderful rock garden called Ssetei. The philosophical meaning of the garden is inextricably linked with Tao philosophy, reflecting the path, order, and harmony in the universe. If we look at the stones that make up different compositions, we see that their sizes are different - nature has the same properties, including light energy – “Yang” and dark energy “Yin”.

If you count the number of stones in each composition, you will find that there are fifteen of them - in Japanese culture, this number corresponds to a full moon. If you are exposed to the atmosphere of the garden, you can dedicate yourself to the deeper meanings of Japanese philosophy.

A 5-minute walk from the Japanese Garden Aqua Park is an open water park - a place for children and adults to enjoy cultural recreation, especially on hot days.

There is also a park “Tashkent Land” within walking distance, where you can relax with your whole family or friends. In the garden you can find many fun games: from extreme slides to attractions designed for the youngest visitors.



**Picture 31. Water basin in the Japanese garden (Tashkent).**



**Picture 32. A composition shaped into trees in the style of nivaki**



**Picture 33. Landscape view of stone compositions in the Japanese garden (Tashkent)**

How to get to the Japanese Park in Tashkent The park is located in the center of the city, so depending on where you are, you can use public transport and taxi services or travel by private transport.

The most convenient way to get to the Tashkent Japanese Park by public transport is the subway. In this case you will have to go to Bodomzor station, then you will have to walk for about 5 minutes at the entrance of the park.

### **Control questions**

1. The Japanese garden in Japan and the history of its creation.
2. The Japanese garden in our republic and the history of its creation
3. Explain the stone compositions created in the Japanese garden.

# LANDSCAPE GARDENING

## CHAPTER 8. SEASONAL FLOWER GARDEN

In order to establish seasonal flowering gardens, it is necessary to pay special attention to the climatic and soil conditions of the place, as well as the biological characteristics of plants. Gardens in this style will show you their freshness all year round.

What good is this seasonal garden you are building?

A great charming patio that can be used in any weather.

Boundary for winter and spring.

Arrangement of seats in the area opposite each other:

One is in a sunny, the other in a shady place;

Divide the garden according to its specific features on the basis of signs;

When planting pots (pots) of different shapes for planting seasonal plants, it is important to leave more space, especially for groups of summer, winter and spring plants.



**Picture 34. Garden project and elements**

### **Elements of a seasonal garden:**

1. The wall of the garden is surrounded by lianas
2. The main boundary of the territory
3. Patio
4. Seats
5. Buried gravel site

6. Containers
7. Wall-mounted dishes
8. Rising platform.

When creating a garden landscape, you are required to build on the basis of advanced practice-based ideas.

Containers, it is important to place seasonal plants in containers in landscaped areas of the area or in restricted areas for planting in the ground. You need to choose the appropriate shape of the containers for the area, pay special attention to this.

They are designed to be used as part of your overall design. Always choose a pot depending on the plant that grows in it.



**Picture 35. Containers for seasonal plants (vases)**

You can use large containers with a mixed area or several small containers stacked together to create a colorful composition.

In order for the garden landscape to have a lasting effect on the visitor, the placement of dwarf evergreen shrubs and conifers, such as saffron, crocus and butterflies (viola), is one of the types of work of practical importance.



*Clematis cirrhosa* var. *balearica*



*Rhododendron* "Praecox"



*Rhododendron* "Praecox"



*Magnolia stellata* "Rosea"

**Picture 36. Used in landscaping seasonal shrubs**

If the area of the garden you are building is a flat road, generally add another dimension with a raised platform. For example, you can make an antique dwelling out of old railway sleepers lined with gravel or red or blue bricks. You can place a statue or vase (an element suitable for the area) in the center.

Also create small indoor playgrounds for children in the area based on creeping lianas, you can use lianas to hide walls and barriers.



*Exochorda x macrantha* 'The Bride'

<https://www.andre-briant.fr/en/variety-range/access-to-varieties/deciduous-shrubs/4115-exochorda-x-macrantha-the-bride-.html>



*Sarcococco hookeriana* var *digyna*  
<https://www.pinterest.com/pin/407575834998238418/>



*Prunus incisa* 'Kajo-no-mai'  
<https://www.hillier.co.uk/garden-and-home-ideas/prunus-kajo-no-mai/>

### 37- Picture. Used in landscaping seasonal shrubs

It is known that vineyards are important for any garden. The vineyard only gives a view of the size and shape of the garden.

If you use lianas to mask their hard barriers, you will need to make sure they stick to the top of the barrier.

It is advisable to try to use one or two perennial landscape green varieties that will attract attention even in winter. It looks even more impressive if you place a few landscape plants in large container containers.



*Chionodoxa forbesii*, *C. Lucillae*



*Crocus* spp.

<https://www.brecks.com/product/Giant-Crocuses-for-Naturalizing>



*Eranthis hyemalis*

[https://ru.m.wikipedia.org/wiki/%D0%A4%D0%B0%D0%B9%D0%BB:Eranthis\\_hyemalis\\_aka\\_winter\\_aconite\\_2005\\_5th\\_april\\_in\\_tradgardsforeningen\\_gothenburg\\_sweden.jpg](https://ru.m.wikipedia.org/wiki/%D0%A4%D0%B0%D0%B9%D0%BB:Eranthis_hyemalis_aka_winter_aconite_2005_5th_april_in_tradgardsforeningen_gothenburg_sweden.jpg)

<https://www.landmorphology.com/blog/2019/2/12/another-perfect-plant-eranthis-hyemalis>



**Picture 38. Assortment of landscape trees and shrubs and bulbous plants in the design of a seasonal flower garden**

When creating a garden composition, you need to follow the following:

- in the garden it is advisable to use traditional materials - stone and historical artifacts, containers, but you can also use other materials - plastic, metal, wood or concrete, but also take into account the condition of these containers during freezing and corrosion.

## PIYOZGULLI O'SIMLIKLAR



<http://syperdacha.ru/lukovichny-e-rasteniya-obshhie-pravila-uhoda/>



Anemone blanda

<https://rassadacvetov.ru/product/anemona-blanda-blu-shejdes/>

<https://agrartex.ru/zagotovki/anemona-blanda-foto-opisanie.html>

**Picture 39. Seasonal flowering bulbs**

- drainage in containers is very important, so make sure there are drainage holes in the bottom of your containers.

- when plowing the garden area, remove pests and weeds, but do not remove high-quality fertile soil from the area.

- when creating compositions in the garden, use individual single-flowered flowering plants and plants grown in several small pots. Select container garden containers according to the area and plant nutrition biology.



*Galanthus nivalis*

<https://www.alamy.com/snowdrop-galanthus-nivalis-image278790563.html>



*Galanthus nivalis*

[https://www.pictorem.com/77206/Dumfries,%20Scotland;%20Snowdrops%20\(Galanthus\)](https://www.pictorem.com/77206/Dumfries,%20Scotland;%20Snowdrops%20(Galanthus))

**Picture 40. Seasonal flowering bulbs**



Picture 41. Assortment of flowers used in garden composition

- plants in pots should be regularly treated with liquid or fertilizer in the form of compost. Treat (soften) the soil under the seedlings as it matures.

- water regularly, as the water loss of plants in the pot is higher than that of plants planted in the ground.

- if there are a lot of hand-held containers, then drip irrigation should be introduced.

### **Control questions**

1. Give an example of the elements of a seasonal garden.
2. Give examples of seasonal flowering landscape trees.
3. Give examples of seasonal flowering landscape flowers.

# LANDSCAPING HORTICULTU

## CHAPTER 9. GARDEN IN A MODERATE MODERN STYLE

In recent years, much attention has been paid to horticultural practices. It is known that there are many areas of gardening, and design work is carried out according to the state of the territory (orchard, landscape garden, rock garden, landscape and regular garden, etc.).

In particular, there is a modern style of gardening, which appeared as a new direction in the late XIX - early XX centuries. This style is an artificially created work by several representatives of the art elite.



**Picture 42. A composition composed of different landscape plants**

Initially, this style belonged to the fine arts, then used in the direction of architecture, and then took its place in the interior design of architecture. This method was later used in landscaping.

The main idea that led to the emergence of this style is the imitation of wildlife. In this direction was the formation of a number of principles that formed the basis for the creation of an artistic image:

- asymmetry, conveying the naturalness of natural phenomena;
- variability, mobility, flow of forms;
- smooth transition, circular elements, no sharp corners;
- stratification is considered as a sign of growth, development in nature.



**Picture 43. The trees are shaped like nivaki and spirals**

It is distinguished by the presence of certain parts of the gardens in the style of modern. In particular, the presence of certain dominant forms that are repeated in many elements in the construction of the project. For example, the wavy line can form the foundation of the house, the direction of the paths should be appropriate, there may be boundaries for flower beds.

The formation of modern gardens in the landscape style is almost mandatory, as is the presence of a water basin. It is also believed that pools have different shapes, different sizes.

In particular, the formation of fountains in a smaller condition is important. On the characteristic side, it is advisable to create compositions based on the contrast of the garden in a modern style.

Contrast style can manifest itself in all directions: shapes, colors, and more. An important feature of this is the need to use natural patterns for decoration.



**Picture 44. A composition of evergreen plants arranged in groups**

Any architectural form is considered to fit the natural garden landscape as much as possible, but at the same time each element is becoming a work of art.

However, this harmony of nature and human creativity can be seen in the iron window grilles, in the design of the benches, in the blocking (shaping) of the bridges covered with creeping plants, and in the garden sculpture.

You will be able to design the interiors of modern style garden buildings to your liking.

The air of this modern style garden is cleaner than other recreational gardens because the main object elements of the garden are natural plants.

In addition, all the elements located here are naturally decorative: they can be present in small forms as plants that give the garden and the garden an original landscape. For example, a flat lawn can be planted in the middle of it with solitary-style fruit trees (apples or cherries).



**Picture 45. Modern landscape composition**

### **Choosing plants for a modern style garden**

1. The choice of colors for the garden composition is important. The main rule is elegance and taste (for fruit plants). As noted above, the Modern-style garden direction was initially associated with fine art. Accordingly, different varieties of delicate irises, narcissuses, peony species, roses, chrysanthemums are more suitable in the garden of this style than landscape flowers.

2. It is advisable to use existing local and adapted landscape trees in the first place; you can use linden, birch, oak species, chestnut, coniferous tree species, pine species, metasequa and mainly landscape trees and shrubs according to the bioecology of the area.

3. Mountain plants and creeping landscape plants are unique elements of modern art (composition). They will definitely show their features in this style garden. Clematis, actinidia, plush, visteria (glycine), tecoma, aristoloxia (*Aristolochia manshuriensis* Com), ipomya, momordica and climbing annual or perennial flowering tulips and roses serve as a source of garden decoration.



**Picture 46. Solitaire style on the lawn background**

The basis for these creeping plants is suitable decorative pergolas and arches, which allow you to create something close to nature. Mountain flowers are used to create a landscape composition. Along with it, the range of materials and decorative elements used in the modern garden has a wide selection. In particular, natural stone, paving slabs are used for the design of roads and paving.

However, the basic rule remains the same: the paths should not be flat, they should be wrapped around each other, and they should be joined in the same way and in harmony as the plants.



**Picture 47. Stone composition**

The main material of small architectural forms in the garden is fake open metals, often combined with wood.



**Picture 48. Modern yard composition**



**Picture 49. Regular composition of a modern yard**

In addition, in the design of modern benches, fences and home decorations, floral ornaments are used, mainly on the principle of specificity.

Sculptures, vases, birds, animal structures can also be used as decorative elements in this garden.

At the same time, water plays a very important role in the design of the garden, including a small (in terms of total area) pool at the back and

fountains at the front.

### **Control questions**

1. The history of the creation of a garden in the style of Modern
2. Modern garden formation method.
3. Plants used to create a modern style garden.

# LANDSCAPE GARDENING

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## CHAPTER 10. ROCK STONE GARDEN

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It is known that a rock garden is usually placed on a flat surface, most of which is covered with sand or small stones. But the main elements of this garden can not be imagined, first of all, without randomly placed stones in groups. However, the randomness is only clear, in fact the location and composition of the stones in groups will have to follow certain rules.



**Picture 50. Stone garden composition**

The surface of the garden should be visible, running along the long side of the garden, forming round circles around the stones. Traditionally, the surface of the garden should symbolize the ocean and the stones symbolize the islands, but the visitor to the garden should imagine himself differently when he enters the garden.

Functionally, rock gardens are designed to get rid of worldly discomfort. Following the norms of Zen Buddhism (Zen-Chinese term),

the design of these gardens is a place that emphasizes the Japanese desire to admire nature, thinking and solitude. In rock gardens here, directions such as seeing the charm of simplicity and the elegance of simplicity are clearly promoted (in Japanese rock gardens). Rock gardens first appeared in the eastern countries (Japan, etc.) between (1336-1573).



**Picture 51. Stone garden composition**

Also, one of the main features of a rock garden is that no matter where the observer is, his gaze is determined by the fact that he falls on an equal number of stones. (<https://ru.wikipedia.org/wiki/>)

The rock garden is known for its charming mountain scenery. The heights of the majestic stones keep the centuries-old secrets in their landscape. Around these majestic stones, fragrant landscape plants show their freshness. We can't help but marvel at the landscapes featuring the colorful stones taken in today's photographs. Rock gardens look truly scenic because its successful appearance is directly related to naturalness.

We will definitely need to carefully consider each indicator to create the charm of nature in areas that are suitable for rock gardens before building rock gardens. At the same time we need to pay special attention to the location of the rock garden, its design and the stones themselves.



**Picture 52. Rock garden composition in large areas**

When creating a piece of wildlife in the garden, the first step is to choose a place that suits the composition. It is advisable to place the rocks in the corner of the garden.

For a rock garden, there can be no large areas that are not filled with plants. It should be excluded from the general appearance of the rock garden, which has a clear shape, which further emphasizes its artificiality. It is therefore necessary to form a landscape-style composition.

However, in the shade of tall trees, shrubs and buildings should not form a rock garden. Proper placement of the area will help to grow healthy plants that will beautifully connect the rocks.

The garden shows the naturalness of the design if you plan the placement of all the elements well.



**Picture 53. Stone garden composition in small areas**

The size of the rock garden also depends in many ways on your capabilities. It doesn't have to be a very large area to build. The rock garden, as a rule, becomes the dominant part of the whole plot if the size of the garden is too large.

This situation gives a positive result, if the area is small, a composition filled with complex structures may appear unsuccessful in a small area. Including a pool or others that require a slightly larger area. Therefore, the area must be properly designed.



**Picture 54. Composition of stone and plants**

Relativity is very important in garden design. So you need to choose medium sized stones suitable for the area.

To make the rock garden look like a mountain landscape, huge stone blocks with a weight of 100 kg (depending on the area of each area) are used.

When installing the stones, it should be firmly placed so that the beautiful side of the composition is visible, but smaller (different sized) pieces of stone are also used to perfect the composition.

Thus, the soil structure of the rock garden should be strengthened, the stones should not slip or sink in the rain. During the rain, water should flow freely to the roots of the plants.



**Picture 55. Alpine composition in a rocky garden**

When laying pieces of stone, one of the types of work that is of practical importance is to get an overall impression and, if available, to periodically consider remote work to eliminate defects.

When placing stones in the area, they should not fall on top of each other. Among them is the need to plant landscape plants.

It is known that there are very large small pieces of stone of different colors and sizes. Therefore, it is important to choose a material that suits the natural conditions of the place. Natural stone sandstone and limestone are very suitable for the garden. There are different colors of stones, it is up to you to choose the colors that match their composition. In any case, it is necessary to use stones that attract the area.



**Picture 56. Rock composition in a rock garden**

In particular, it is good to use limestone, it has a pleasant color texture (surface lines). It is known that many mountain plants love the sun, so the rock garden area should be located at the edge of the common area, away from the shade of trees and buildings. But wetlands are not good. Excess water causes the roots of the plants to rot. (<https://nerud-m.ru>)



**Picture 57. Rock garden built in Iran**

<https://account.travel/place/stone-garden.html>

### **Control questions**

1. What are the main elements of a rock garden.
2. How many kg does each stone weigh to resemble a rock garden as a mountain landscape.
3. What stones are used in rock gardens.

## LANDSCAPE GARDENING

### CHAPTER 11. WATER BASIN GARDEN

We know that the basis of every established gardening practice is the process of water and its targeted use.

This does not mean that a pond garden should be built where there is a lot of water, you can build it according to the condition of the area and the garden landscape. Reservoirs of various sizes and shapes will have the opportunity to create this garden in waterways that are interconnected by canals and canals.

If there is enough space in the area, you will be able to build islands floating on the water where the bridges are thrown.



**Picture 58. Water basin garden composition**

At the same time, the coastal lands of the region were fortified with stones, and water and coastal vegetation were planted. The pools to be built will be built at different levels, taking into account the direction of the water, so that water flows freely from one pool to another.

Water basins do not require a very large area for gardens and an assortment of plants in many pots, more importantly, the presence of

large amounts of water, water characteristics in the garden and water should be consistent with design elements (flower beds, recreation areas).

At the same time, it is important to choose a place that reflects the beauty and uniqueness of nature, taking into account the conditions of light in the water garden, the proximity of buildings and plants.

Fountains and cascades are suitable for classic formal gardens, while arbitrarily shaped pools are designed for a free landscape style.



**Picture 59. Water basin garden composition**

When arranging a garden, you need to focus on preventing mistakes.



**Picture 60. Water basin garden composition**



**Picture 61. Water basin garden composition**



**Picture 62. Water basin garden composition**

Accordingly, in order to build a good quality and balanced water garden of the required level, it is necessary to carefully design it (with the help of water experts) and create it wisely, and then take care of the plants regularly.

In this garden you can use aquatic plants such as landscape plants: Azolla, Aponogeton, bolotnotsvetnik, brazeniya, vodokras, gidrokleis, kuvshinka, lotus, ryaska, eichhornia. You can also put fish in the pool depending on the depth and width of the pool being built.

(<https://landshaft21.ru>, <https://usefulplant.ru>).

### **CONTROL QUESTIONS**

1. Where water park gardens will be built.
2. How to build water park gardens.
3. What plants are planted in water garden gardens.

# LANDSCAPE GARDENING

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## CHAPTER 12. ROMANTIC GARDEN

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We know that man, as systems change, as progress progresses, he perfects the well-being of his life. That is, he paid special attention to the processes of cultural recreation. These include entertaining (cultural, recreational) accessories in their backyards and parks and alleys.



**Picture 63. A compositional view of a romantic garden**

It is well known that every cultural leisure person wants to have a quiet, free and carefree leisure time in the area, even if only for a short period of time. Romantic gardens can be considered as these masks.



**Picture 64. A composition to be placed in a romantic garden**

The Romantic Gardens to be built is a bit of a carefree, shady corner, a place of quiet, free cultural recreation, which perfectly reflects the style of several generations of architectural designers.



**Picture 65. A compositional element of a romantic garden**

The romantic-style garden originated in the late 18th century and housed elements of unusual and chaotic styles, with the area lined with abandoned ponds, ruins of ancient castles, fences, vineyards, a maze and “places to kiss”.

Romantic gardens need to be built on the basis of abundant green plants, trees and shrubs that grow as sloping as possible (such as willows, creeping roses).



**Picture 66. Romantic garden composition**

According to Marina Tulchi (2012), if you don't separate the architectural details, decorate the ponds with natural spaces, and arrange the paths, they can lead to the most secluded corners that are initially hidden from view.

Pavlovsky Garden is a landscape park created by theatrical artist P. Gonzago with white lawns, seedlings and a wonderful track system, where there is a birch circle in the middle of the park and eight radial paths.

The straightness of the paths is obscured by trees. The White Birch Park, which has almost no buildings and exotic plants in the area, is a shining example of the landscape change of nature during the Romantic period ([https://www.greeninfo.ru/landscape/garden\\_style/romanticheskij-sad\\_art.html](https://www.greeninfo.ru/landscape/garden_style/romanticheskij-sad_art.html)).

If we look at the history of Romanticism, if in the gardens of classicism ancient mythology (mythology is a consistently regulated system of mythological imaginations created by a particular people) and symbolism are of great importance, then in Romanticism it is almost non-existent.



**Picture 67. Pavlov's garden**

**Classicism** - (Russian classics, from the point of view of world art history, is part of European neoclassicism (classicism is mainly a process between 1780 - 1790) should note the existing confusion in terms: The end of the XVIII century - the middle of the XIX century (corresponding to Russian classicism). Then, at the end of the 19th century, it is narrated that there was a third rise in interest in the classical style, which was called neoclassicism in Russia and did not have a separate name abroad. (<https://ru.wikipedia.org/wiki>).

The main thing in this garden composition is that it is judged by the harmony of spirit and nature, the harmony of their tones. The romantic garden to be built is a garden of good moods and memories.

The romantic garden is a very suitable composition in the style of landscaping, there are no strictly defined boundaries, but this does not mean that romanticism is a denial of the rules. Romanticism is more complex and whimsical than "rules" - it is important to follow the rules of mind control.



**Picture 68. Flower composition in a romantic garden**

Romance has been interpreted in various nationalities as follows: French romanticism, Spanish romance, and English romance in the 18th century meant “strange“, „fantastic“, „beautiful“.

And this process became a new direction of Romanticism, a style of the nineteenth century, as opposed to classicism (Classicism, the French classic “exemplary” from the Latin classics) - an artistic style and aesthetic direction in European culture between the seventeenth and nineteenth centuries.

And at that time, romanticism was understood not as a romantic thing, but as “walking in the moonlight and writing in the moonlight” in parks, but in terms of free thinking, romanticism was clearly demonstrated by the poets and writers of that period.

Without rejecting everyday life between these years (seventeenth and nineteenth centuries), the Romantics sought to unravel the mystery of meaning in human life by appealing to nature, believing in people’s religious and poetic feelings.



**Picture 69. The composition of the pool and fountains in the romantic garden**

Accordingly, in the gardens of romance - parks, created pavilions of thought (imagination), romantic ruins. At the same time, special places in the gardens for those who want solitude, have become a place of self-deepening. And this enclosed, direct barrier and wall enclosed in nature has become an expression of one's inner life.

The romantic gardens that are being built on today's modern garden plots are a place with a slightly different meaning that can be interpreted differently. In particular, parks created in many landscape styles are really romantic, but in the small spaces in them it is important to create a romantic mood that will delight some people.



**Picture 70. Romantic table set up by Anhar**

It is well known that the lack of strict rules and laws in the romantic garden being created does not mean that you do not have to think about everything in advance and make a plan when building it. The goal should be to evoke a romantic mood that will delight visitors to the area.

If you design the area aimlessly, the elements in the area, the strange spread of the flower beds, can mean an incomprehensible landscape area on the lawn.

Accordingly, the romantic garden to be built, or more precisely this garden that gives a romantic mood, should not be visible at all (the interior of the garden), there should not be too many bright colors in the area.

This does not mean that you should give up red in the garden composition, on the contrary, let there be plants of this color, but it is advisable to place it more white, pink plants.



**Picture 71. A romantic meet in a romantic river garden**

However, in any case, you should not give up roses, they are always considered to be a plant that delights man, it is advisable to sow only those varieties that have a lot of aroma.

Every element and sculpture in the established romantic garden, works of art, silhouettes, compositional elements from grass to tall plants, should be the impetus for a romantic relationship in the garden.

Then everyone, landscape designer or landlord, or visitor to the parks, will adopt a romantic style in a unique way and combine this style with romantic feelings, memories.



**Picture 72. Modern romantic garden composition**

It is known that today it is very difficult to fully adapt to the style of modern green areas around urban villages, but for those who like brightly fragrant temperate places - Ishkom surrounded by five-leaf clover (parthenocissus), it is advisable to use stylistic sculptural elements such as moss-covered stones.

The garden should also have a path that leads visitors to a modest corner for cultural recreation or to sit alone and talk. In order to improve the composition of the garden, it is of practical importance to have in the area of annual flowers (purple, crocuses, etc.) that bloom from spring to late autumn, for example, crocuses collected from the lawn in the spring.



**Picture 73. Flowers in a modern romantic landscape garden composition**

Whatever the romantic garden to be built, it should show its beauty in the eyes of many spectators and visitors, give a romantic mood, as well as be a place to seal the dreams and memories of fans of art (fine arts).

In any case, as far as we know, the romantic gardens of the previous period were planned and built at the request of the designer. Accordingly, sometimes romantic gardens are considered ancient as they

repeat things that once existed: forgotten flowers of the last century, old benches and vases, statues and pergolas. Therefore, today, designing according to modern requirements is one of the types of work of practical importance.



**Picture 74. Flowers in a modern romantic garden composition**

Romanticism is a good solution that combines modernity, everyone will have their own romance and accordingly a romantic imagination will go through it in the course of their lives!

#### **Landscape plants planted in a romantic garden.**

For the garden to have a romantic shape, it is necessary to use a number of elements, paying special attention to the arrangement. Traditionally, such a garden should consist of large trees of various shapes, including dichotomous shapes, species of climbing plants, several lawns and landscape flower beds.



**Picture 75. Modern romantic garden composition**

Trees and shrubs can be planted in groups, in the background of buildings and the far side of the garden. As for the landscape forms to be built in the area, in a garden decorated in a romantic style, it is possible to use symmetrical and asymmetrical elements that pass each other without any problems. To see the garden in a completely romantic style, you need to choose the right plants. These can be conifers, poplars, birches, fruit and landscape trees - the choice should not be limited to formality, the main thing is the correct placement of trees that give a landscape at the intersection of seasons.



**Picture 76. Flower composition in modern romantic garden**



**Picture 77. A closed alley composition based on roses**

Flowers and perennials in the garden should be placed in an artistic order. In such a garden clematis, ipomiya, lemon, iris, chamomile and others are grown. Attention should be paid to cereals and grasses, which should be the basis of the garden lawn.

If there are a lot of roses in the garden, then you need to find an effective way to place the flowers in the background of the grass. The best place for roses is on the south side of the building. Here they grow better and faster.



**Picture 78. A relaxing composition of a romantic garden**

Low-growing varieties of roses are suitable for decorating the lawn. We know that the types of roses should be selected depending on the plan and type of garden. If emphasis is placed on naturalness, it is advisable to prefer botanical garden roses.

Today, climbing roses are also actively used in romantic gardens, they are used not only to decorate canals, porches and arbors (summer house), but also tree trunks. Such roses can be grown without difficulty.



**Picture 79. Under the floral arrangement of the romantic garden recreation area**



**Picture 80. Under the floral arrangement of the romantic garden recreation area**



**Picture 81. A compositional view of a romantic garden**

So it is very important to think about every detail of dendro design of the garden, because walking in such a garden, cultural recreation should be easy and pleasant.



**Picture 82. Cultural recreation in a modern romantic garden**

Thus, in conclusion, it can be said that the lack of strict rules in the construction of a romantic garden is mainly to impress the visitors.



**Picture 83. Open alley in a romantic garden (butar-based)**

All the elements of the built garden should be arranged in a chaotic manner, with a little carelessness. The main thing is that the garden area should be clean and quiet, give an artistic romantic impression.

<http://vesdizain.ru/osobennosti-romanticheskogo-stilya-v-landshaftnom-dizajne.html>

### **Control questions**

1. Describe romantic gardens?
2. What is classicism?
3. What plants are planted in romantic gardens?

## LANDSCAPE GARDENING

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### CHAPTER 13. ARCHITECTURAL LANDSCAPE GARDENS

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The term “landscape architecture and design” first appeared in the United States a hundred years ago in connection with the establishment of national parks there. However, this should not lead to the notion that landscape architecture and design have a short and brief history. On the contrary, the boundaries of this understanding go back to a very ancient history of human activity. According to modern concepts, architecture is a creative and practical activity aimed at creating a comfortable and environment necessary for human society and each of its members.

The concepts of architecture and landscape design are a wide range of interrelated expressions. Architecture is the art of achieving harmony of form and content and volume in construction.

An architectural work is a product of human creativity, which is able to integrate the material culture and art of society. An architectural garden is a type of garden in which garden buildings and other artificially constructed structures form a plurality and are created on the basis of a specific composition.

Landscape is an area created for outdoor work and recreation, the composition of which is formed on the basis of artistic and ecological laws with natural vegetation, relief, soil, water, wildlife and artificial (architectural engineering structures) developments.

Landscape design is the use of creative activities, landscaping, geoplastics, small architectural forms, decorative coatings, visual communication tools aimed at creating an artificial environment.

Today, the number of magnificent landscape design facilities being built in our country on the basis of modern design is growing day by day. We can see innovative high-rise buildings, eco-park, green areas.

In particular, it is impossible to create landscape gardens that embody the art of mountaineering and sculpture, with a natural and artificial look, without increasing human pleasure. These landscaped gardens provide people with aesthetic pleasure, high spirits, good rest.

It should be noted that gardens and parks, alleys, alleys and 20 hectares of parks and green areas, 2 hectares of artificial lakes, fountains, boulevards and landscape design facilities are being built in Tashkent city.

Landscape design objects are open and covered spaces. Mainly to them: streets and squares; small recreational (recreation, recreation) areas

(alleys, squares, parks, corridors and streets), multi-purpose parks; recreational and economic areas in residential areas (children, adults, recreation, sports, etc.); interiors of various functional rooms.

The main goal of landscape design is to integrate architecture with elements of nature, to create an open environment that is pleasing to the heart, pleasing to the heart, functional, aesthetic and ecological, in which the aesthetic factor plays a key role.

Landscape is a complex of natural-territorial, naturally bounded and with a certain appearance character. The concepts of *landscape* and *landscape* should not be confused with each other, but they both mean ‘view of the place’ when translated from German and French. “Landscape” is a geographical term, a special distinction of the natural appearance of geographical areas. “Landscape” is a term used in color imagery to describe the location of an area with the human eye.

The purpose of creating an architectural landscape garden. Architectural landscape garden design and design. Methods of building a landscape composition in an architectural landscape garden. Assortment of landscape trees, shrubs and flowering plants for the architectural landscape garden, the scheme of their planting and placement. The main elements and components of the architectural landscape garden.



**Picture 84. It is a very interesting creative style, reminiscent of the usual classic and high-tech look.**

There are five main elements of the landscape - land (relief), air, water, flora and fauna. The sixth element is man. The earth's crust has

different reliefs. This relief tells the distribution of air and water. As a result, the character of the territorial-climatic flora and fauna of the place accumulates. Relief is the “skeleton” of the landscape.

In the architecture in the picture you can see a reworked composition of styles: each of them has its own characteristics. However, attributes are not key here. Each style has a basic concept and idea. Accordingly, all means of artistic expression, attributes have been selected for this idea.

Here, although the architectural style has many visual elements with the above styles, it has its own philosophy and “ideological foundation”. The main thing in architectural style is an individual approach. It reflects the images and shapes of various structures and tries to retell the architecture in landscape language.

In order to organize a garden, it is important to understand the following: in “architecture” these forms are based on the accuracy, precision, engineering calculation, harmony, knowledge of the relevant laws and time-tested harmony.

The size of the area for the best such garden can be recommended mainly from 4 to 12 acres, but it also looks interesting in an area of 20 acres. If the area is not on a slope and has the correct shape, it is easier to equip, build and maintain such a garden.

### **The main elements of landscape design:**

Shapes and lines. In addition, geometric figures: squares, rectangles, circles, elongated flats, triangles, polygons and a combination of combined figures are the main elements.

There are also many unique different materials: natural stone, brick, concrete slabs, marble stones and other materials. Maximum pavements (asphalt concrete, cement, paving stones). Geometrically shaped pools. Many (sculptural) sculptures.

One of the most important elements of an architectural garden is a lawn. This is its background and foundation.

The lawn should be well cared for. Lawns are a plant that requires special attention to itself. Therefore, it must be constantly watered, fertilized, cut.

### **Project planning features:**

Geometric lines in planning. Clearly define the area. Mostly straight road lines.

Characteristically, the theme is repeated in several elements. In this case, you need to see a certain rhythm. Rectangular curb- rectangular pool -

patterned square grid fences - rectangular corridor elements and more. This garden needs to be symmetrical and at least in some separate area.



**Picture 85. Architectural landscape design**

(<https://www.google.com/search?q=arxitekturaviy+loyihalash&rlz>)

Planning is reminiscent of a geometric composition or drawing.



**Picture 86. View of the garden landscape element.**

Color solution: nuanced gamma light colors and their shades predominate. There aren't many bright colors in an architectural garden, it's just for accents.

Favorite colors: white, sandy color, cream color, light gray, pale terracotta color, silver, red and yellow.

Trees: oak, chestnut, hazelnut, poplar, linden, slate, plum, apple, maple, pine, cedar, spruce, spruce, white pine, western camel, and

spherical, columnar black spruce.

Shrubs: rhododendrons, barberry, birch, acacia, currant, gooseberry - all well-formed or (stem) standard. Wrinkled curly-red grapes.

Perennials and flowers: ferns, brunnera, tulips, beetroot, milkweed, rodgersia, rhubarb, astilbe, ligularia, helenium, dicentra, garden roses, rudbeckia, echinacea, sunflower (sunflower) *Helianthus tuberosus*, nasturtium, lupine, naperstyanka, landscape squash, clematis, roses.

Onion plants: emperor fritillaria, giant (giant) onions, large tulips and saffron daffodils, any cereals, especially large ones, as well as reeds.

### **Small architectural forms:**

Architectural pavilions and pergolas. Sculptures - from antique types to modern abstractions. Many decor elements (architectural direction). Bright road surface of geometric shapes, the use of different colors in paving.



**Picture 87. Architectural form and buildings.**

Border. The shape of the raised flowerbeds corresponds to the shape of the field or path. Straight (lawn) lawns, their boundaries are bordered by curbs consisting of plants.

The geometric shapes of the places where water collects are the elevated water basins-curbs, water basins-canal. Seats (benches) - curbs, seats - retaining walls (of course, with upholstery details designed to fit properly).

Garden masks, nets, fences - with a variety of architectural elements. Live wall izgorod consisting of cut, shaped plants. Columns and semi-columns. Arches, hangers, balloons.

Balls: Balls under the stone, made of metal, glass or transparent glass. Clearly shaped flowerbeds, grooves, garden windows.

You can build an architectural landscape garden on any plot of land, but then you have to work with it a bit: divide it into a set of geometric shapes, reveal their shapes. Zoning in this style garden can be only slightly described or complete - there are no clear requirements.

It is advisable to choose large plants for the architectural garden. Or the inflorescences and leaves should be large. Make box-seats, it is very practical, you can store garden inventory and many other useful things in them. As an accent in the garden, you can use individual bushes cut in the shape of a cube, sphere or pyramid.

### **Control questions**

1. Describe the concepts of architecture and landscape design?
2. Give an example of the basic elements of landscape design?
3. The main purpose of landscape design?

# LANDSCAPE GARDENING

## CHAPTER 14. MODERN CITY PARK

A modern city garden should be a public place and attract people. Modern gardens should be attractive: For example, in a modern garden it is important to have: walkways that you can walk in any weather conditions and at any time of the year: to avoid freezing during the winter. The garden should have benches where people and the elderly as well as young people can relax.

Navigation - should stand with a map so that vacationers do not get lost in the garden. all amenities will be created in the modern garden for people with disabilities.

<https://j.etagi.com/stati/interesnoe/modern> .



**Picture 87. The Central Green Fleet in Philadelphia is large modern garden**

[https://j.etagi.com/stati/interesnoe/modern\\_park/](https://j.etagi.com/stati/interesnoe/modern_park/)

**The following are the main objects in a modern city park must have:**

1. Grove.
2. Landscaping area.
3. Walkways.
4. Seats for relaxation.

5. Waste bins.
6. Toilet.
7. Tree irrigation system.
8. Attractions, small and large playground equipment.
9. A place to sell soft drinks and ice cream.
10. Administrative building.
11. Farm yard.
12. Lockable entrance and exit gates and doors.
13. Barrier (wall or fence) surrounding the garden area
14. Summer variety or amphitheater.
15. Lighting system.
16. Drinking water.

**Additional recommended objects:**

- |  |  |
|--|--|
| <ol style="list-style-type: none"> <li>1. Beach, locker rooms, boats, catamarans, etc. related to the pool and its activities.</li> <li>2. Fountains.</li> <li>3. Sales outlets.</li> <li>4. Catering establishments.</li> <li>5. Small sports fields (mini football, volleyball, tennis, badminton, athletics, chess, etc.).</li> <li>6. Statues, statues, busts and other monumental works of fine art.</li> <li>7. Area for mobile circus activities.             <ol style="list-style-type: none"> <li>8. Playgrounds.</li> <li>9. Children's camps-city.</li> <li>10. Mini models of the city and other objects.</li> <li>11. Live corner.</li> <li>12. Classrooms for clubs and teams.</li> </ol> </li> </ol> | <ol style="list-style-type: none"> <li>13. Greenhouse.</li> <li>14. Nursery.</li> <li>15. Greenhouse.</li> <li>16. Production shops, workshops related to garden activities.</li> <li>17. Dance grounds.</li> <li>18. Demonstrative propaganda and agitation means.</li> <li>19. Vehicles.</li> <li>20. Entertainment venues.</li> <li>21. Photographs, photo-video service.</li> <li>22. Rental of toys and small vehicles (children's bicycles, cars, etc.).</li> <li>23. Reading room.</li> <li>24. Machinery and equipment used in landscaping of the garden.</li> <li>25. Computer games.</li> <li>26. Internet cafe</li> </ol> |
|--|--|

**The area of each park should be divided into two areas:**

1. A quiet area that serves the population to rest and relax in the peaceful nature.
2. A dense area that serves for active recreation of the population.

**In a quiet area, only the following can occur:**

1. Grove.
2. Landscaping area.
3. Traffic lanes.
4. Seats and benches.
5. Sale of ice cream and soft drinks.
6. Greenhouse, greenhouse, nursery.

7. Trash cans, toilets.
8. Administrative building.
9. Farm yard
10. Classrooms for clubs and teams.
11. Passive sports equipment (chess, checkers, dominoes, lotto, etc.).
12. Statues, statues, busts and other monumental works of fine art.
13. Production shops, workshops related to garden activities.
14. Library.

At least 65% of the area occupied by the quiet area should be planted with trees, walkways, benches for recreation, as well as landscaped lands. The remaining 35 percent of the area is allowed to accommodate other facilities.

**The placement of the following facilities in a crowded area allowed:**

1. Grove.
2. Landscaping areas.
3. Walkways.
4. Benches and chairs.
5. Trash cans.
6. Toilet.
7. Attractions, small and large play equipment.
8. Sale of soft drinks, ice cream.
9. Summer variety or amphitheater.
10. Beach, locker rooms, boats, catamarans, etc. related to the water basin and its activities.
11. Sales outlets.
12. Catering establishments.
13. Small sports fields (mini football, volleyball, tennis, badminton, athletics, etc.).
14. Statues, statues, busts and other monumental works of fine art.
15. Area for mobile circus activities.
16. Children's playgrounds.
17. Children's camps.
18. Mini models of the city and other objects.
19. Live corner.
20. Dance grounds.
21. Entertainment facilities.
22. Photographs, photo-video service.
23. Rental of toys and small vehicles (children's bicycles, cars, etc.).
24. Computer games.
25. Internet cafe
26. Demonstrative propaganda and agitation means.

**Objects in a crowded area are not allowed to occupy more than the following area (relative to a crowded area):**

1. Sales outlets - 3%
2. Catering establishments - 3%.

3. Small sports fields (mini football, volleyball, tennis, badminton, athletics, etc.) - 5%.

4. Area for mobile circus activities - 2%.

5. Playgrounds - 1.5%.

6. Children's camps - 2%.

7. Live angle - 1%.

8. Dance grounds - 2.5%.

9. Entertainment facilities - 3%.

10. Photographs, photo and video services - 1%.

11. Rental of toys and small vehicles (children's bicycles, cars, etc.) - 1%.

The area occupied by the total facilities may not exceed 25% of the area of the densely populated area.

Today, modern parks are divided into 3 types according to the structure and scope of services.

### **I. Criteria for a type of culture and recreation park:**

1. 50-60% of the total area of the orchard

2. Landscaping area - 10-15% of the total area of the garden (based on flowers)

3. Walkways - 5-7% of the total area of the park

4. Seats for rest - 200-250

5. Waste bins-100-120 pieces

6. Toilet-4-6 pcs

7. Attractions, small and large playground equipment-30-35 pcs

8. Sale of soft drinks, ice cream - 5-10 pieces

9. Summer variety or amphitheater-3-4

10. Water basin-2 pcs

11. Sales outlets - 2% of the total area of the park

12. Catering establishments - 2% of the total area of the park

13. Small sports fields (mini football, volleyball, tennis, badminton,

athletics, etc.) - 3.5% of the total area of the park

14. 1.5% of the total area of the park for mobile circus activities

15. Children's playgrounds - 1% of the total area of the park

16. 1.5% of the total area of children's camps-parks

17. 0.75% of the total area of the living corner-garden

18. Dance grounds - 2% of the total area of the park

19. Photographs, photo-video services - 0.5% of the total area of the park

20. Rental points - 0.5% of the total area of the park

21. Farm yard

22. Administrative building

23. Medpunkt

24. Guardhouse

25. Fences and gates

26. Exhibition hall

27. Garden area lighting

### **II. Criteria for a type of culture and recreation park:**

1. 50-60% of the total area of the orchard

2. Landscaping area - 10-15% of the total area of the garden (based on flowers)

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>3. Walkways - 5-7% of the total area of the park</li> <li>4. Seating chairs -80-100</li> <li>5. Waste bins -40-60 pcs</li> <li>6. Toilet-2-3 pcs</li> <li>7. Attractions, small and large playground equipment-20-25</li> <li>8. Sale of soft drinks, ice cream - 5-7 pieces</li> <li>9. Summer variety or amphitheater-2</li> <li>10. Water basin-1 pc</li> <li>11. Sales outlets - 2% of the total area of the park</li> <li>12. Catering establishments - 2% of the total area of the park</li> <li>13. Small sports fields (mini football, volleyball, tennis, badminton, athletics, etc.) - 3.5% of the total area of the park</li> <li>14. 1.5% of the total area of the park for mobile circus activities</li> </ul> | <ul style="list-style-type: none"> <li>15. Children's playgrounds - 1% of the total area of the park</li> <li>16. 1.5% of the total area of children's camps-parks</li> <li>17. 0.75% of the total area of the living corner-garden</li> <li>18. Dance grounds - 2% of the total area of the park</li> <li>19. Photographs, photo-video services - 0.5% of the total area of the park</li> <li>20. Rental points - 0.5% of the total area of the park</li> <li>21. Farm yard</li> <li>22. Administrative building</li> <li>23. Medpunkt</li> <li>24. Guardhouse</li> <li>25. Fences and gates</li> <li>26. Exhibition hall</li> <li>27. Garden area lighting</li> </ul> |
|--|---|

### **III. Criteria for a type of culture and recreation park:**

- 1. Tree - 50-60% of the total area of the garden
- 2. Landscaping - 10-15% of the total area of the garden
- 3. Walkways - 5-7% of the total area of the garden
- 4. Seats for rest - 40-60
- 5. Waste bins - 30-40 pieces
- 6. Toilet - 2 pcs
- 7. Amusements, small and large playground equipment - 15-20 pieces
- 8. Sale of soft drinks, ice cream - 3-5 pieces
- 9. Summer variety or amphitheater - 1 piece
- 10. Water basin - 1 piece
- 11. Sales outlets - 2% of the total area of the park
- 12. Catering establishments - 2% of the total area of the park
- 13. Small sports fields (mini football, volleyball, tennis, badminton, athletics, etc.) - 3.5% of the total area of the park
- 14. 1.5% of the total area of the park for mobile circus activities
- 15. Playgrounds - 1% of the total area of the park
- 16. Children's camps - 1.5% of the total area of the park
- 17. Live corner - 0.75% of the total area of the garden
- 18. Dance grounds - 2% of the total area of the park
- 19. Photographs, photo-video services - 0.5% of the total area of the park
- 20. Rental - 0.5% of the total area of the garden

21. Farm yard
22. Administrative building
23. Medical station
24. Guardhouse
25. Fences and gates
26. Exhibition hall
27. Garden area lighting

The garden will be designed for children, adults, athletes, the elderly and other categories of people. Therefore, the zoning of the garden will be important:

- on the route - playgrounds for children;
- training grounds for athletes;
- a separate place to read a book;

The architects chose the circle as the basis for zoning the garden. Each club has its own theme: sports coaches, a place for passive recreation, a place to play with children, for walking, sitting, aisles and paths will be allocated.

There will only be sidewalks in the park. In modern urban parks, there are two types of walkways in the gardens: one is only walkable, the other is where games and performances take place, where trees, plants, birds and animals are also indoors. [https://j.etagi.com/stati/interesnoe/modern\\_park/](https://j.etagi.com/stati/interesnoe/modern_park/)

In ordinary modern gardens, primarily consists of landscape plants and flowers, landscape plants primarily create a microclimate that purifies the garden air and purifies the air, which in turn is of great importance for human health.

Every landscape plant in an urban setting is equivalent to this gold because it retains urban dust, cleans the air, helps maintain a moderate air microclimate in the summer, and requires animals, pets and birds living in the gardens in the winter as they are the whole ecosystem - water, gas and power.

Chinese gardens and orchards were known long before the Christian era. In the works of ancient Chinese philosophers (IV-III centuries) one can find science-based theories, after which gardeners created gardens and orchards of extraordinary beauty and meaning and taught to see, understand and glorify the beauty of natural landscapes.



**Picture 88. A modern city park in Europe**

According to their functional purposes, modern urban parks in China are divided into seven main categories of landscape architecture objects.

- Imperial gardens;
- parks of imperial burial complexes;
- conditional landscapes;
- parks based on natural landscapes;
- gardens of temples and temples;
- residential gardens;
- city parks.

After the founding of the People's Republic of China in 1949, no imperial gardens and parks, including burial sites, were built. Some of the large gardens of ancient temples, such as the Temple of Heaven and the Temple of Earth in Beijing, have in fact become venues for public ceremonies and have become urban facilities in their functions. However, they, like the emperors, are carefully preserved, restored, and fully retain the original planning structure.

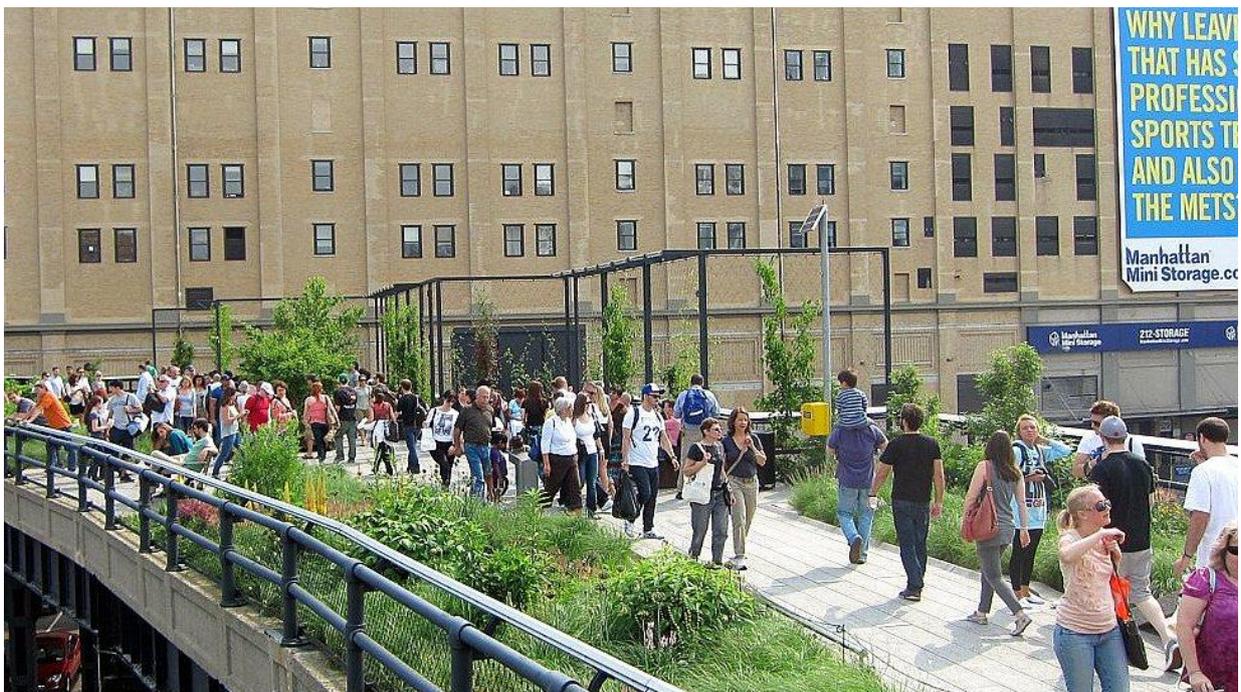
Many of them demonstrate the commitment of modern Chinese experts to traditional techniques produced in the past. In others, we see a close connection between ancient traditions and the demands of modern life. The processes of globalization have gone so far that there are solutions that make it almost impossible to assume that they belong to the ancient Asian culture.

The location of modern city gardens and parks is very entertaining. The axial arrangement elements typical of Imperial and temple gardens are noted only when the objects are ideologically connected with the historical periods in which they are displayed. In other cases, planning is free, areas should, as a rule, have several equal access points, which are subject to the general urban situation.

**Here are the top 5 modern parks in the world:**

A few years later, the Zaryade Park was to replace the dilapidated Russia Hotel. Moscow chose the project at will and created five unique parks in the world created since the beginning of the XXI century.

**1. “High Line” park.**



**Picture 89. “High Line” park.**

New York. Year of creation: 2009 to present. Architect: Diller Scofidio Renfo James / Corner Field Operations. Length: 2.6 km. Number of visitors: 4.4 million people.

This High Line park was created on the freight railway section, opened in 1934 and operated until 1980. At that time, trains ran from 34th Street to the terminal on Spring Street. In 1999, residents of the railway area formed the Friends High Line public organization to turn abandoned areas into public spaces. The initiators of the project achieved the first serious results only in 2002, when the New York government

agreed to rehabilitate the road. At the same time, a study conducted by the organization showed that the taxes that the city receives from the implementation of the planned project on this site exceed the investment in its creation.

In 2003, 720 companies from 36 countries participated in the competition for the concept of development of high-line areas. Architects Diller Scofidio Renfro and James Corner Field Operations won the competition. Construction began only in 2006. The first part of the park was opened in 2009, the second part in 2011 for visitors. The third phase was to be completed in 2014. The total length of the High Line park is 2.6 km. The cost of the construction investment is estimated at € 143.5 million.

## 2. “Millenium park” garden-park



Picture 90. Millenium park

**Chicago. Years of creation: 1998 - 2004 Architect: The first concept was Skidmore, Owings & Merrill LLP, which later involved architects, designers and artists from around the world to work on the project. Area: 99 hectares. Number of visitors: 4 million people.**

The Millennium Park was built on the site of the Illinois Central Railroad depot and railway station. Construction of the garden began in 1998 and was originally scheduled to be completed by 2000, where the name "Millennium" or "Millennium" appeared. But the planned \$ 150

million budget was not enough, the park opened in 2004 alone and fell to \$ 475 million, of which \$ 270 million was allocated by the city, with the rest coming from private investors.

One of the park's main attractions is the Jay Pritzker Pavilion Concert Hall (designed by Frank Gehry, one of the world's greatest architects, author of the Guggenheim Museum in Bilbao, and the Dance House in Prague). One of the sponsors is the owner of the Hyatt hotel chain. Although the construction of the hall was initially estimated at \$ 10.8 million, the volume of investments has grown to \$ 60.6 million.

Here on AT&T Square is the famous sculpture of Indian British artist Anish Kapoor, “Cloud Gate” or “The Bean”, which consists of a giant steel dot 20 meters long, 10 meters high and weighing 100 tons. The park also houses a music and dance theater called the Harris Theater, which cost \$ 60 million, not \$ 20 million.

In 2006, the New York Ballet was performed in Chicago for the first time in 25 years, and the performances took place at the Harris Theater. In the southern part of the park was built “Lurie Garden”, which was created by Catherine Gustafson, the founder of the British bureau Gustafson Porter..

### 3. Duisburg Nord Park



91-Рacм. Reuters, Duisburg Nord Park.

Duisburg Nord Park, Duisburg (Germany). Year of creation: 1991 - 2002. Architect: Latz + Partner. Area: 240 hectares. Number of visitors: 500 thousand people.

This park was invented in 1991 by Peter Latsem, one of the founders of the German bureau Latz + Partner. The main task that the architect wants to solve is defined as how to properly understand this industrial area and repair it without destroying or destroying it.

The park was built in 1985 on the site of an abandoned steel mill. Industrial buildings have been preserved and used to create a wonderfully unique space: for example, a “Diving Center” has been built at the former gas storage facility, and many concerts and exhibitions are now being held in the old workshops.

The investment in the construction of the Duisburg Nord Park was much smaller than other park projects, although the area of the park was 240 hectares and amounted to only € 15.3 million.

#### **4. “Gardens by the Bay” garden-park.**



Picture 92. Gardens by the Bay. Site: [flickr.com/photos/jorgecancela/](https://www.flickr.com/photos/jorgecancela/).

**Gardens by the Bay, Singapore. Years of creation: 2006 - present. Architect: Gustafson Porter and Grant Associates. Area: 101 hectares. Number of visitors: It is estimated to be close to 5 million.**

Gardens by the Bay, or “Parks in the Gulf,” is a three-part opposite Bay Bay, Bay East, and Bay Central located around the Gulf of Singapore.

In 2006, 170 bureaus from 24 countries participated in the competition for the park's Architectural Architectural Concepts, which was won by British Gustafson Porter and Grant Associates. Construction of the Gardens by the Bay is currently underway, but part of the park is already open to visitors.

Designed by Gustafson Porter, Bay East (32 acres) was first partially operational in 2011. The second part, Bay South (54 hectares), was opened in June 2012 and was designed by Grant Associates architects. The largest of the park's three investment portfolios is Bay South, which is estimated to be visited by around 5 million people a year, valued at £ 500 million.

The main attractions of Gardens by the Bay are the Cloud Forest, a 35-meter-high Cloud Mountain waterfall and 18 giant trees 25-50 meters high, each of which has a separate vertical view. park and Flower Dome is a complex of flower domes. There are seven botanical gardens in the Flower Dome area - Australia, Mediterranean, California, South Africa, South America, as well as Baobab and Succulent Aquatic Plants.

## **5. “Wadi Hanifa Wetlands”**



**Picture 93: “Wadi Hanifa Wetlands”**

**Wadi Hanifa Wetlands, Riyadh (Saudi Arabia). Year of creation: 2004 to present. Architect: Buro Xappold / Moriyama & Teshima Planners Ltd. Length: 120 km.**

Wadi Hanifa Wetlands is not a park in the classic sense. Buro Happold and Moriyama & Teshima Planners Ltd have worked together to rehabilitate the Wadi Hanifa (Hanifa Valley) River Basin, which runs through Riyadh, the capital of Saudi Arabia. The condition of the watershed is deteriorating year by year as the amount of wastewater discharged into the river by the city, whose population is expected to almost double by 2025, increases.

It is a unique project to rehabilitate almost 120 km of areas, which began in 2004 and continues to this day. During its implementation, 5 lakes with an area of 25.1 hectares were created, 9 main parks were built, 46.8 km of tourist roads and 7.4 km of hiking trails were equipped, 87,000 trees, 50,000 shrubs, 6,000 palm trees were planted and 22 bridges were built.

In 2010, the Wadi Hanifa Wetlands treated 350,000 cubic meters of urban wastewater per day, and by 2025 this figure is expected to reach 1.2 million.

Modern parks can become a real decoration of the city, where residents can take a break from the daily hustle and bustle, engage in active sports and relax.

### **ZARYADE Park in Moscow**

Zaryade Park is a historical center located near the Red Square and the Kremlin. The project authors' bureau was Diller Scofidio + Renfro (New York), landscape master specialists Hargreaves Associates (New York) and urbanist Citymakers (Moscow). Over the centuries, the Zaryade has changed its appearance several times: once upon a time there were embassies, royal residences, military garrisons, Jewish neighborhoods and the poor.



**Picture 94. View of the garden. Retrieved from RIA NOVOSTI.**

In the early twentieth century, the project of the largest Moscow skyscraper was frozen here, and the foundation of the hotel "Russia" was built. After the demolition, there was a waste area here that had been surrounded by a construction fence for a long time. However, in September 2017, in a unique new look, the public square opened its doors to all visitors, which changed the image of modern Moscow.

The main role in this park is given to nature, peace and tranquility. All cultural and entertainment facilities ("Ice Cave" with a constant low temperature, a concert hall and a large amphitheater, an underground museum, a media center, etc.) are combined with the existing landscape. Also, the artificially created hills and lowlands are covered with real forests and meadows that restore various natural zones from the tundra to the steppe.

The overall modern look of the Zaryade Park ended with a unique "Rising Bridge" that offers the most beautiful panoramic views of the city, the Kremlin and the Moscow River.



**Picture 95: Garden center area. RIA Novosti is taken from the site.**

### **“Cactus city” pars in Spain**

Desert City, a large garden center around Madrid, grows plants from five continents.



**Picture 96. Rare cacti**

Deser City is a real Cactus Land park built on the outskirts of Madrid by the Spanish bureau Garciagerman Arquitectos. The experimental garden center building for the demonstration and cultivation of cacti was designed by architect Jacobo Garcia-Herman.



**Picture 97. Rare cacti**

The garden has more than 400 plant species brought in from all over the world. Here you can find thorny representatives of the five continents of the Earth. In the Deser City area, succulent (aquatic) plants grow in special zones where the dry and semi-arid microclimate is regenerated and as close as possible to natural habitats. To simulate desert conditions, some “flowerbeds” are covered with sand, while others are covered with soil and gravel.

In addition to the greenhouse and exhibition center in the main building, there is a business center, restaurant, shop, office space and warehouses. The buildings are covered with a lightweight structure that protects the neighboring highway from the harmful effects of the road. The buildings surround the interior, the center of which is a separate cactus garden. Newly arrived plants are placed here. The greenhouse is reinforced with cables and covered with an elongated roof.



**Picture 98. Greenhouses with greenhouses.**



**Picture 99. Greenhouses with greenhouses.**

The client of Garciagerman Arquitectos was a group of cactus-growing enthusiasts led by Mercedes Grazia Bravo, a well-known Spanish businesswoman. A professional chemist, engineer and entrepreneur, he founded Deser City 4 years ago, buying the space at his own expense. Created by Donna Bravo, who is in love with cacti and her partners, the lush garden now has a modern architectural architectural

environment.

In short, such categorization of cultural and recreational parks should not only improve the quality of their services to the population, but also have a significant impact on the infrastructure and architecture of the region. In turn, it serves as a factor in strengthening the region's economy.

### **CONTROL QUESTIONS**

1. Explain the structure of modern cultural and recreational parks?
2. Explain the types of culture and recreation parks and its criteria?
3. Explain the requirements for modern cultural and recreational parks?

# LANDSCAPE GARDENING

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## CHAPTER 15. SAMPLE HOUSE GARDEN

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A model home garden can radically change the lifestyle of an entire family. When creating a garden, always take into account the change of seasons. What it will look like in spring and summer, what plants in autumn, what to observe in winter.

The garden design of the exemplary houses creates unusual compositions with tastefully decorated landscapes, artificial ponds, topiary elements, climbers and rockers. Creating an unusual landscape in the yard requires labor and knowledge of the basics of its design.

A typical house garden is part of a plot of land adjacent to a house. It is divided into front or front yard and back. It is open to anyone who wants to look behind the wall and has a unique feature of the owners. Therefore, its design is created with special care.

The model house garden will be located behind the house. Only a recreation area will be established here, farm buildings will be located and poultry and animals will be kept.

The layout of a typical home garden depends in many ways on the size of the plot and the needs of the family. But there are general principles that many follow to improve it.

The list of facilities located in the garden area of the model houses includes technical buildings and scenic elements of the landscape. The first of these is a necessity because they provide convenience to homeowners, while the second is necessary to meet their aesthetic needs.

Objects of technical importance include a garage, parking, summer kitchen, guest house, place for dogs. Space for garages and vehicles is usually located behind the gate or under the house, where there is no noise from the road and no street dust.

In a far corner, but not far from the outer barrier, a place for a dog and a birdhouse or kennel were set up.



**Picture 100. Solitaire style in the courtyard of a typical house**

Landscaping, flower beds, reservoirs, deciduous and coniferous plantations, lawns, small architectural structures, etc., and their number depends on the yard area, and such elements are often located along the walls and walls of additional buildings.

The front of the patio is not filled with vegetation - it will have to be empty to move. The area at the entrance to the house will be paved with paving stones or other pavements.

If the backyard garden is large enough, flowerbeds will be built around the stairs.

In the front yard of the house, a shed is poured for relaxation, and they are surrounded by flowerbeds and creeping plants, and together they form a landscape composition.

If there is space, hydraulic structures, fountains, artificial water basins will be built. Water should be placed as close to the rest area as possible as it helps to create a microclimate.



**Picture 101. Climbing style in the courtyard of a model house**

Flower beds and flowering plants help to create a special color around the house. The type of plants is selected depending on the different design method. The size of the yard, its level of lighting and the design of the house are also taken into account.

Decorated with spring flowers, the landscape of the garden will flourish. Their flowering period is not very long, but many species and varieties allow the plants to be selected in such a way that they last from April to early June.

The variety of spruce, pine, biota and camel forms from landscape coniferous trees opens up space for landscaping. They are used in the creation of hedges, solitaire, group planting, topiary art, nivaki style, rockery and alpinariums, and planted as a ribbon on evergreen lawns.

Slow-growing and deaf species are popular because they are suitable for decorating small areas and are used as container crops, this species is mainly used in the bonsai style.

Landscape shrubs are distinguished by the brightness of the colors of flowering perennials, which are used in complex plantings such as roses, hydrangeas, peonies or irises.



**Picture 102. Formed in the courtyard of model houses**

### **landscape composition**

Landscape leaves and flowering shrubs serve as the dominant plants. These include barberries, forsythia, various spirea, evonimus, chakanda, viburnum buldanej, and the like.

Perennials. The basis of flower beds are herbaceous perennials. Around them, the rest of the composition marks the back of the built-in flowerbed.

Suitable for sunny areas erigeron, liatris, anemone, load, and grows well in sedum and host shade.

The space between the perennials is filled with annual flowers that bloom all summer.

Lianas. Liana-like plants are created to decorate the courtyard area. They are decorated with fences, porch columns.

Creeping landscape plants are used to create green screens in the zoning of the garden, separating the outdoor buildings from the front of the courtyard.



**Picture 103. Scenic in a basket of model houses  
composition of lianas**

Clematis is often widely used in vertical landscaping. Their less dense leaves transmit light well and at the same time create a curtain that protects open windows from dust.  
<https://dizlandshafta.ru/dizajn/landshaftnyj/osobennosti-landshaftnogo-dizajna-dvora/>.

### **CONTROL QUESTIONS**

1. What are the types of seasonal flowers in a typical home garden?
2. Types of perennial shrubs in typical home gardens?
3. Explain the types of evergreen landscape plants in typical home gardens?

# LANDSCAPE GARDENING

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## CHAPTER 16. CULTIVATION OF PLANTS IN LANDSCAPE GARDENS

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Plants need good daily, long-term care for them to grow well and have high landscape properties. If there is a system of measures for the care of trees and shrubs, they will be focused on the capture of plants after planting and the creation of biologically resistant and aesthetically pleasing crops.

Crop growth is adversely affected by unfavorable conditions for crop condition, life expectancy and landscape characteristics.



**Picture 104. Seedlings in a container**

Harmful gases and dust emitted by cars, toxic wastes from industrial production, lack of light, especially when blocked by buildings, increased insulation and heat, low relative humidity, soil compaction in streets and squares all limit root growth, slow down growth processes, plants reduces landscape, shortens life expectancy.

In the care of trees and shrubs in the process of conducting agro-technical measures it is necessary to comply with a number of requirements. In this case, on the one hand, it is necessary to take into account the origin of plants, their bioecological characteristics, physiological state, and on the other hand - the unfavorable environmental conditions.

Maintenance of trees and shrubs is carried out after they are planted, in the process of using the landscaping object, that is, throughout the life of the plant.

Care after planting trees and shrubs. Care after planting trees and shrubs is aimed at ensuring good plant retention and growth. The first few years after planting are a period of "revival" for the plants as they are exposed to different conditions and the roots are slightly damaged.

The time of capture and full recovery of plants depends on their biological characteristics, condition and age of seedlings. The fastest (in 2–3 years) shrubs behave and grow. The period of complete retention of 6–11-year-old tree seedlings lasts 3–4 years. For large trees and shrubs, this time is observed up to 5-6 years.

After sowing, attention is paid to regular maintenance throughout the season, taking into account the soil and climatic conditions. Irrigation, loosening and mulching of the soil around the trunk, feeding are carried out. For the development of roots, the use of stimulants during growth (heteroauxin, betaindaluxic acid) gives good results. These stimulants are added to the soil in solution (one tablet, 100 mg of active substance, 10 liters of water) and watered simultaneously.

Based on research and experiments, the following guidelines for the use of stimulants are recommended: In liters per plant:

It is recommended to use growth stimulants in the spring, during the recovery of the root system. Immediately after watering, the stimulant solution is applied along the irrigation ditch around the tree, taking into account that the soil in which the plant's root system is located is completely moistened and saturated.



**Picture 105. Planting pine seedlings**

For plants planted with soil around the roots, a solution of stimulants is applied along the circumference of the soil, covering the area where the roots are cut. Further processing is carried out only after 5–6 days. Weak plants, in particular, need the use of stimulants.

Soil loosening and regular watering, weed control, application of mineral and organic fertilizers, pest and disease control, tree trunk cleaning, managing its growth by pruning the branches are the main measures in the care of trees and shrubs.

Soil loosening and irrigation are carried out regularly (12-15 times per season). Irrigation is carried out until complete wetting of the 1-meter soil layer. Irrigation rate is 100 m<sup>3</sup> / ha every 15-25 days. If the soil is not fertilized with organic and mineral fertilizers before planting, it is necessary to feed during the growing season.

The size of the root system is large, and it is recommended to irrigate trees and shrubs at a depth of up to 1.5 meters of soil by saturating them along the edges, or by means of perforated underground.

When the soil moisture is sufficient, the root system grows to a depth and width. If the moisture does not go deep enough (when it rains or irrigates the area around the tree), a surface root system that is not typical for most trees is formed. Such rooted trees become wind-

resistant, do not live long and can not withstand the attack of body pests.

If there are no conditions for filtering trees and shrubs in the area, then an effective hydraulic irrigation method is used. The pump operates under the pressure of the hydraulic irrigation machine. Hydrobur allows you to moisten the layer where the root system of trees is located in a short time (5-10 minutes). The effectiveness of such irrigation can be increased by adding a solution of mineral fertilizers.

It is also important to soften the area around the trees with the help of hoes. This agrotechnical measure is carried out regularly, as a result, the area is cleared of weeds and the respiration of the plant root system is improved. Pruning is carried out 6–7 times a season at a depth of 4–5 cm, without damaging the roots.

In the summer it is useful to rain the branches of young tree seedlings and the surface of the bushes. In the second year after planting, it is advisable to feed the leaves by adding a solution of mineral fertilizers. For this purpose, 0.1% urea solution (1 g of urea salt is dissolved in 1 liter of water), 0.2% ammonium nitrate solution, 0.5-1.0% superphosphate, 0.5% potassium chloride solution can be used.

Working solutions of nitrogen and potassium fertilizers are prepared in cold water on the day of sowing, and the superphosphate solution is prepared the day before.

During the summer, young seedlings are regularly monitored: the trees are checked for fastening to the pegs, bent, pulled and tied. If the pegs are bent, they are straightened, and another is stumbled in place of the broken ones. Once the plants are fully captured (3 years after planting), the piles are removed.

In autumn, the soil around the trunks of trees is loosened (to a depth of 5–7 cm). In order to heat the plants, this place is filled with conifers, manure or humus 3-14 cm thick. In the first year, heating the root system is a necessary measure.

When the warm days of spring begin, manure and humus are added and dumped along with the soil. In order to protect young trees and shrubs from winter snow, in early December, their branches (especially mojjevelnik and biota) are tied with string, and in the spring the ties are removed.

Measures to be taken during the operation of the landscaping facility. In order to keep trees and shrubs in good condition in the green areas and to maximize their landscape properties, a number of measures

are taken to care for the surface of the plants.

One of the main aspects of care is the partial pruning of individual branches and twigs to improve the quality of the landscape to the plant branches. Pruning is carried out taking into account the biological characteristics of plants. When trees are cut down, its overall growth and development improves. In this case, the branches are given the desired shape, dried, diseased and excessively thickened branches are removed. As a result of pruning, the ratio of the total volume of tree branches and roots changes, the sucking roots increase, resulting in improved water and mineral supply to the plant.

During the young, rapid growth of the tree, the care of the branches should be “fast”. During the maturation of the plant, the removal of dried branches is carried out.

Tree pruning is performed by skilled and experienced gardeners. Three types of tree pruning are used to care for the branches: shaping, sanitizing, and rejuvenating.

The purpose of cutting to form is to ensure that the main branches are properly distributed; giving the tree a beautiful, pleasing appearance, adjusting its overall height, and preserving its natural and artificial twigs.

When cutting a tree, the shape of their natural branches is taken into account: cylindrical, pyramidal, oval, willow, and others.

Each tree has its own height and shape, it is not allowed to cut it.

It consists of twisting and shortening the branches to give shape, reducing the twigs. This work is carried out in the nursery.

In Uzbekistan, the annual growth of branches is accelerating, so all deciduous trees (except chestnuts) require annual pruning to form. It is advisable to hold this event in the winter, during the winter dormancy of trees. Bachki branches between the branches are cut regularly and when needed.

It is recommended to cut the chestnut tree only at a young age (10-12 years). After this age, pruning will have a negative impact on this tree.

In slow-growing crops, 20-50% of the branches grown this year, 60-70% of the branches of fast-growing trees will be cut. The branches are plucked to 4–5 buds. The purpose of this work is to stop the growth of large and strong branches, to allow the growth of small ones, as well as to form a uniform as a result of thickening the branches of young trees. As a result of the shortening of the overgrown branches of the tree, as

well as the shortening of the branches at the top of the compact or spreading branches, strong branches develop from its cut part.

To restore the biological and physiological balance between the branches of the trees and the root system, a sharp thinning by pruning the branches will be necessary. With age, the branches of most trees thicken and grow, weak and withered branches appear, leading to a decrease in their landscape. For this reason, the branches of trees ( $2/3$  of their length) are sharply cut, which distorts the shape of the branches. You will need to cut off part of the branches that are blocking each other. Thinning is one of the most important measures.

When shaping trees in adjacent alleys and streets, special attention is paid to the fact that their height and diameter of the branches are the same. The remaining forms after sharp cutting should be arranged in such a way that the branches are completely covered with leaves. The thickness of the branches is determined by looking at them from the bottom up and sideways. Only the branches or part of them that block each other are cut off.

The purpose of sanitary pruning is to cut old, overgrown branches, to improve the ventilation and light transmission of tree branches. Such pruning measures are carried out throughout the growing season.

Despite good care, if trees stop growing or begin to dry out from the inside, they are rejuvenated by pruning their withered branches to the point where new branches emerge. Complete rejuvenation of aging trees is carried out gradually, over 2-3 years. In the first year the oldest, withered branches are cut, then the rest of the skeletal branches.

When cutting down trees, keep in mind the following:

- the branches should be cut directly from the inside or outside of the rod using sharp pruning shears or a shovel; small branches and twigs are cut without damage if they are on the same level with the trunk, and the cut is cleaned with a garden knife;

- large branches are cut in three stages: first with two cuts (top and bottom), the branch is removed at some distance from the trunk; then it is completely cut at one level to the point where the branch attaches to the trunk of the tree;

- it is not advisable to leave holes in the trunk, as cavities appear and grow in them, causing the trunk to become ugly;

- the cut areas are cleaned with a sharp garden knife and oiled;

- In the second year after pruning, those that are grown as skeletal

branches for a new branch are separated from the set of branches that have grown, and parallel and thickening branches are cut.

Concomitant use of 0.1% solution of phosphamide or carbophos, 0.5% potassium chloride and 0.1% superphosphate, 0.3% urea, 0.015% barium and 0.06% molybdenum gives good results. Such, extra-root feeding improves the growth and condition of the trees. Whitewashing of tree trunks is part of the complex of agro-technical measures in urban landscaping. This event is held throughout the year.



**Picture 106. Nutrition of flowers on the basis of phosphamide deficiency.**

Whitewashing of trees, especially young seedlings, protects them from summer burns and winter frosts, as well as is a key tool in pest and fungal disease control measures. Whitewashing of trees is done with a 20% solution of lime, quickly added, using simple, shoulder-mounted sprayers, or with a hand-painted brush.) the inside of the pits formed in is thoroughly cleaned; asphalt or molten gum (bitumen) mixed with wood chips and fastened.

To do this, melt chewing gum or asphalt (bitumen) in a pot, add wood chips and mix until a muddy mixture is formed. When hot, the cavity is filled with this mixture, which cools in place, forming a flexible and impermeable mass. This mass does not crack in the cold of winter or in the shaking of trees.

The pit is filled, leveled with the trunk, and covered with bark-colored paint.

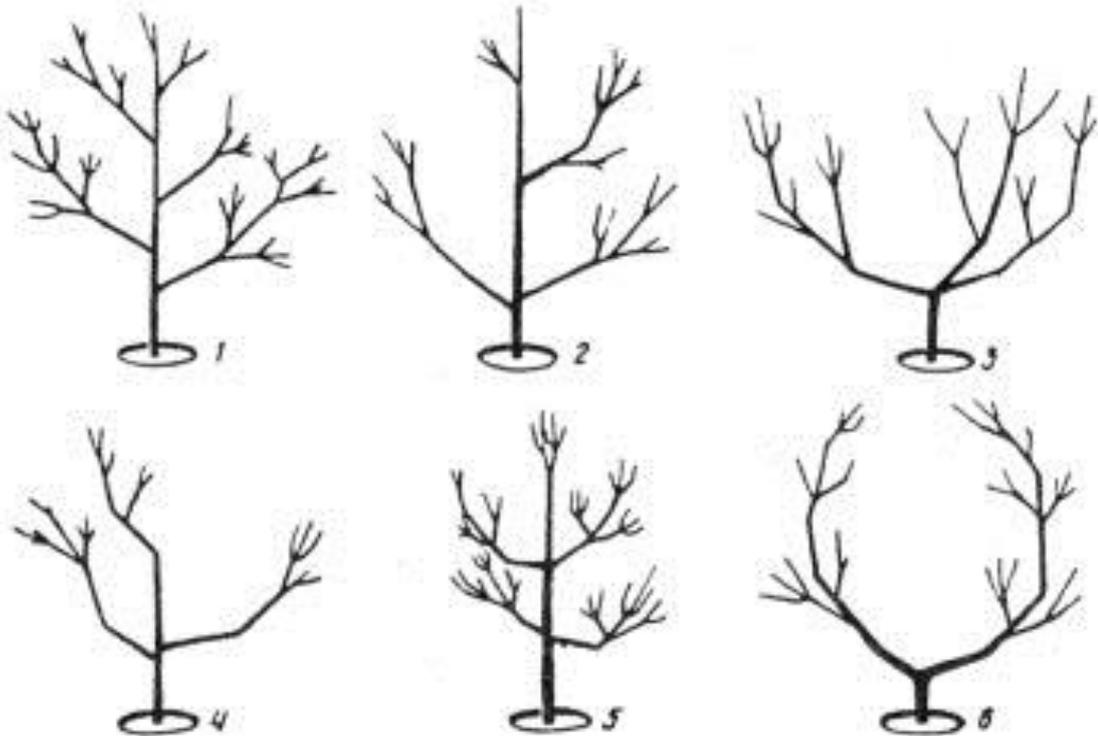
### **Control questions**

1. Explain the measures of agro-technical preparation of landscaping?
2. What are the stages of the technology of growing seedlings of landscape trees and shrubs?
3. Describe the agronomic techniques for caring for planted trees and shrubs?
4. What should be considered when pruning trees?

# LANDSCAPE GARDENING

## CHAPTER 17. FORMATION OF LANDSCAPE GARDEN PLANTS

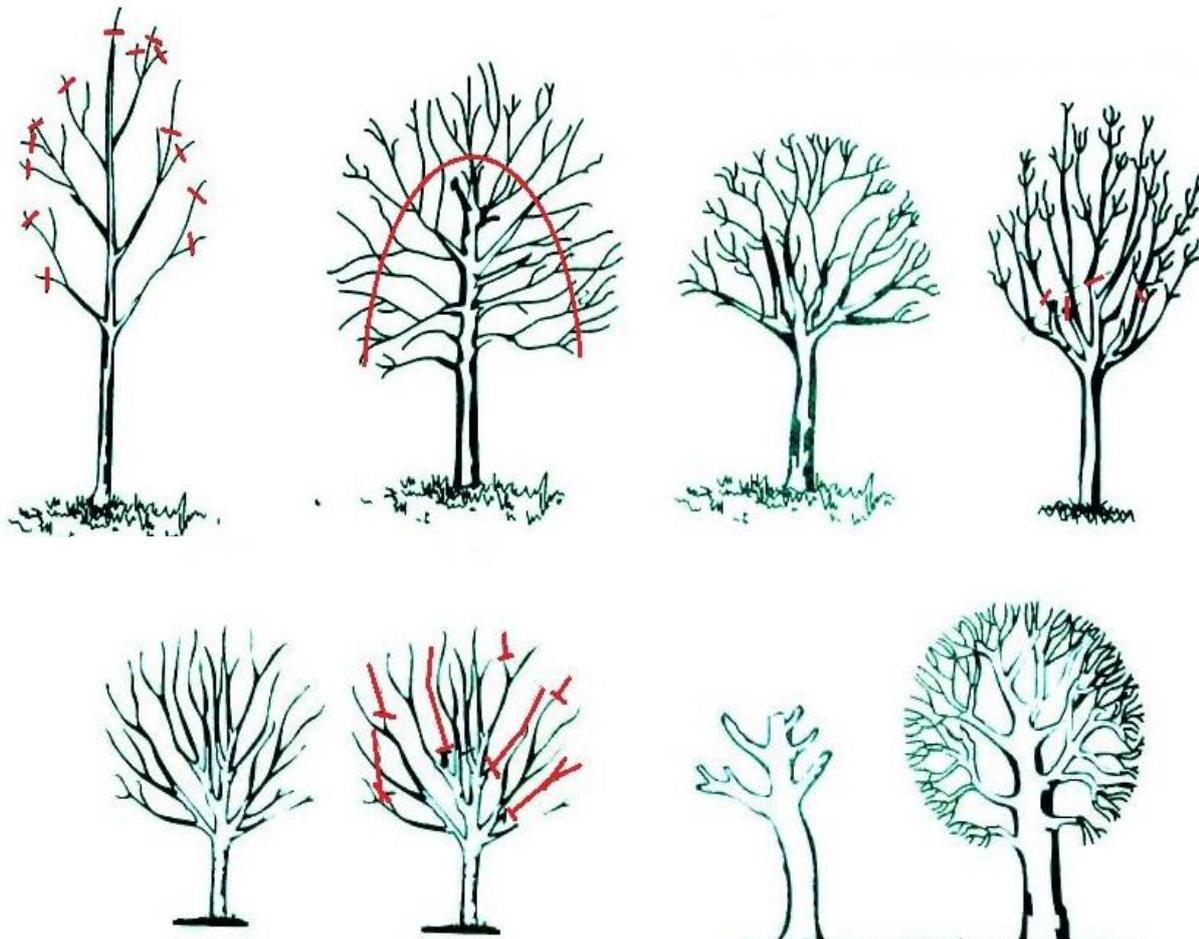
If it is necessary to remove a large part of the branches in order to create new forms, drastic (radical) measures such as pruning the plant will give good results if carried out in March-April before the emergence of green buds or after the last strong frosts.



Picture 107. Shaping landscape garden plants over the years

Corrective adjustments made in order to maintain the shape can be performed in practice at any time of the year. It can be avoided in cases of extreme cold or severe (intense) radiation. This measure prevents damage to the areas that were cut after pruning and exposed to the rays under the leaves.

Shaping should be carried out when new branches begin to form or when they are completely (completely) formed. If they are cut prematurely, new twigs will then appear (grow) quickly, which will require additional pruning. If pruning is done too late, the branches and buds below can often begin to wither and give weak branches.



**Picture 108. Landscape garden plants for years to form a sphere by cutting**

As a result of late shaping, the leaves, which previously stood in the shade and opened, are characterized by a very high sensitivity to sunlight. On top of that, it is difficult to notice the original shape of the plant and restore it. Forming times:

Boxwood wakes up very early, so you can start shaping it in May. Depending on the growth rate (intensity) of the plant, a second or even a third bush may be needed. Final application (in Germany) should be carried out in late September and early October. Since sesame often responds to corrections in late August or early September by removing new twigs and does not have time to form until the first strong frosts, it is cold in winter.

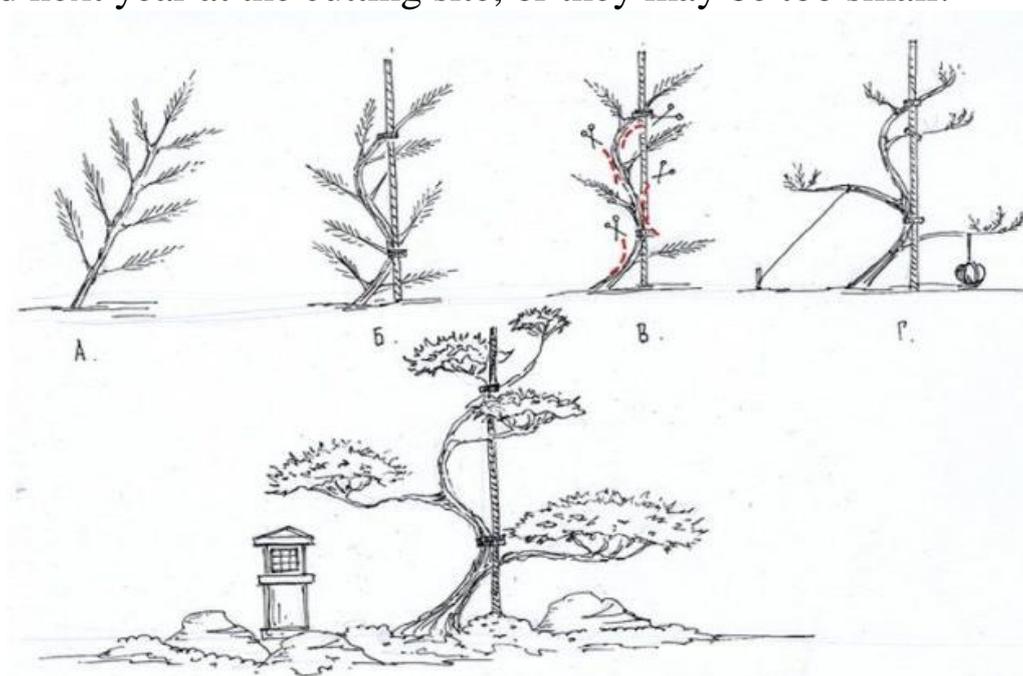
Pines (pine) - is a very limited, single plant, the period of formation of which takes shape in landscape plants. Depending on the species of pine, with the growth of the branch, new needles are cut or broken from the beginning to the end of May, until they fully emerge.



**Picture 109. Nina leaves give shape to plants in the nivaki method**

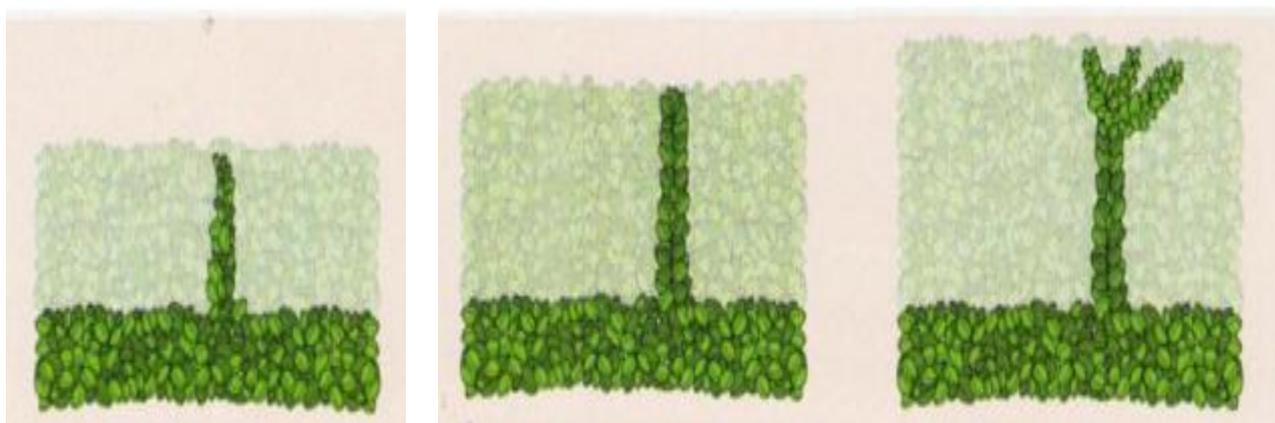
The period of formation of different pines is determined by the time when the branches can emerge: mountain pine and forest pine produce branches early, black pine late.

When forming too late, the bud will not form for the rod that will be formed next year at the cutting site, or they may be too small.





Picture 110. Types of shaping and shaping in the Nivaki method

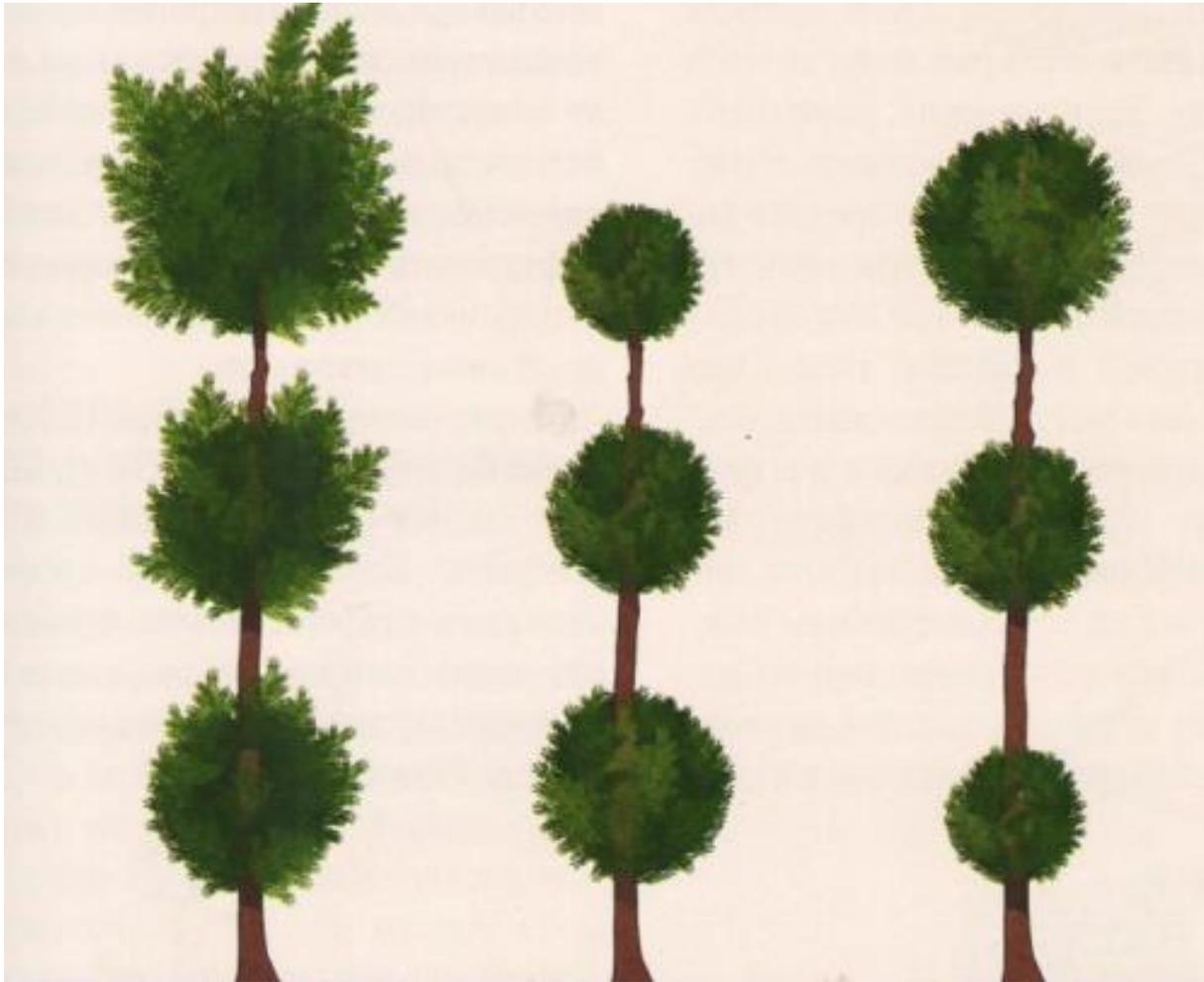


*Early shaping branches not formed;*

*Timely shaping branches are formed;*

*Too late shaping – the emergence of side branches;*

Picture 111. Shaping a green living wall created from boxwood.



**Picture 112. 1. Before the plant is formed. 2. Short at the top, long at the bottom, the shaping is done correctly. 3. Long at the top, short at the bottom, irregularly shaped.**

Plants can be maintained for a long time with the right ways of forming and caring for them. In order to maintain the shape of the plant, it is necessary to leave as few new buds as possible in their formation. The new bachki begins to wood quickly in the spring and early summer, it is recommended to cut it practically to the base.

Simple geometric shapes. The cube is created using a rectangular parallelepiped (box) (with a rectangular base and sides, as well as all sizes) using bamboo sticks or removable templates. Of course, it is also possible to use stationary (fixed) templates, but, as a rule, there is no significant need for this.

The cube is a structural element of the garden and can be considered a symbol of space assimilation by man. Different combinations of cubes make the most interesting impressions. Modern formal parks, Mediterranean parks, landscape parks. Boxwood, tis and many other plants that can lift well in the cube method.



**Picture 113. Cube shape**

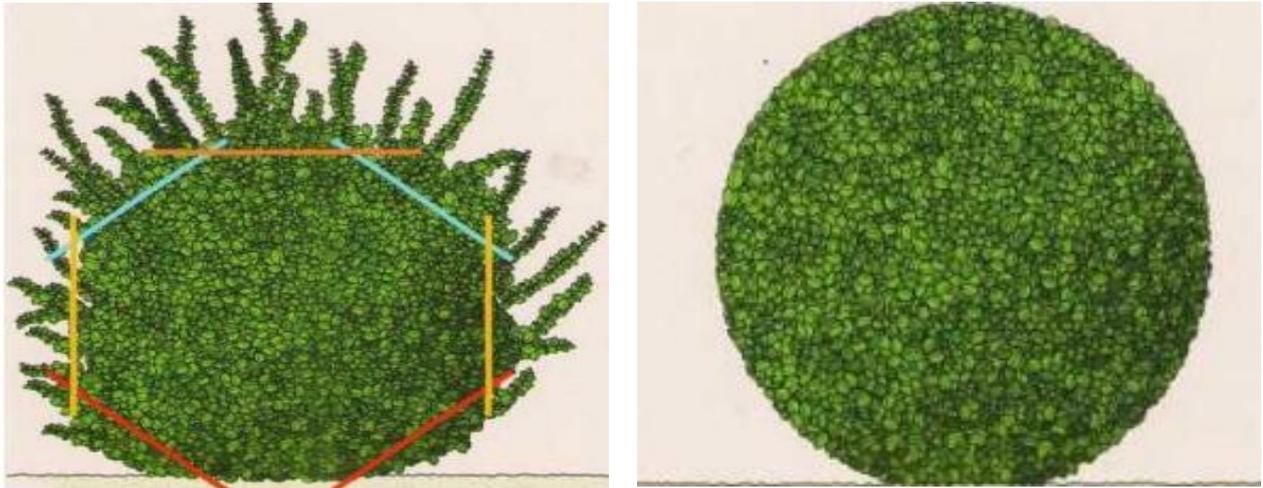
The pyramid has a square base. It is incorrect to use the word pyramid in accordance with landscape plants with a natural conical shape. Because it is a square base, a given plant will need a larger size or much longer care to create a pyramid.



**Picture 114. Pyramid shape**

The shape of the pyramid is widely used as a symbol uniting Heaven and Earth. Historical parks, modern official parks, Mediterranean parks, landscape parks.

Low-branched shrubs given a spherical shape can deteriorate over time, especially under the influence of snow cover, when they reach the desired height.



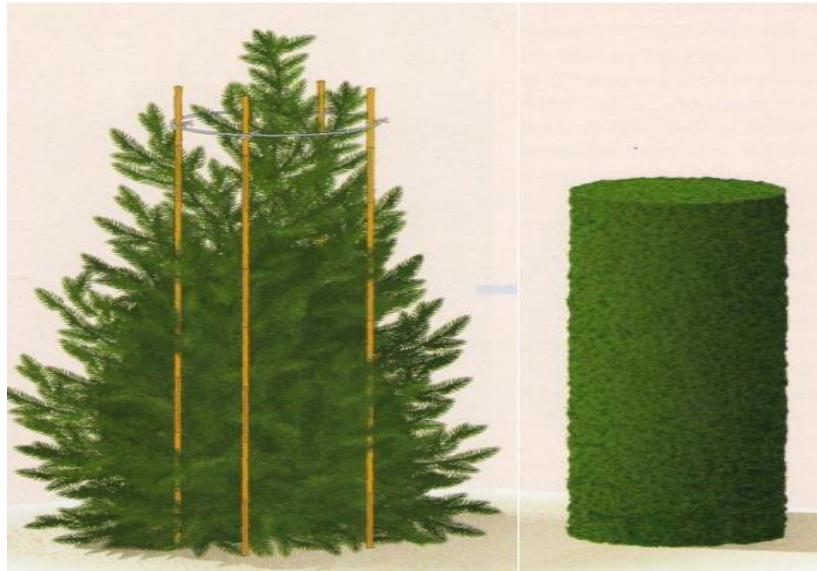
Picture 115. Spherical shape



Picture 116. Cone shape

To get the cone shape, just like creating a pyramid, you need four (sometimes three) bamboo sticks that allow you to mark the main contour. The remaining branches are then cut around the circumference.

To give the shape of the cylinder, you need to fasten a few bamboo poles around the top (sometimes even below) with wire.



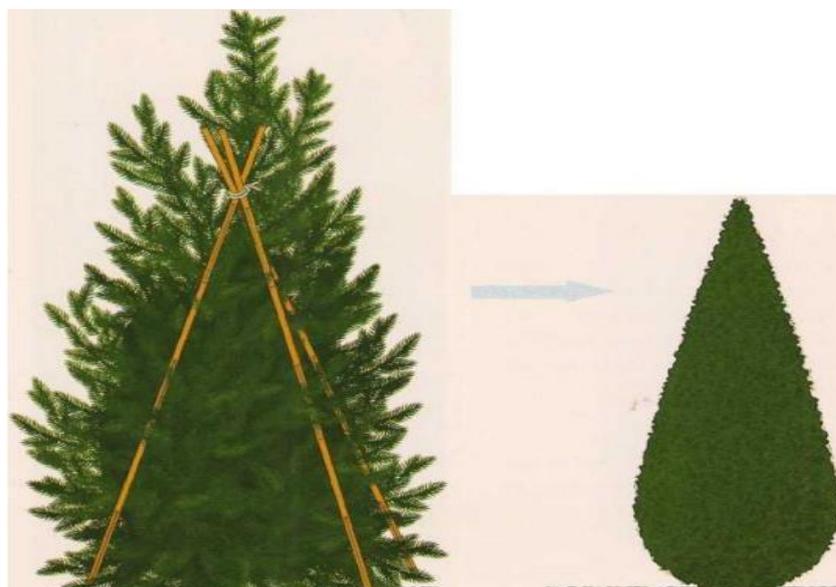
**Picture 117. Cylindrical shape**

Arizona cypresses (cypress) are happily imported. The shaped spherical-shaped golden leafy cypress gives a good view of the cypresses.

In creating the drop-shape, too, the stalks are tied at the top as a template and are thus used to form the plant. Upon completion, the base is given a hemispherical shape.

Usually the drop shape is created in a single body, which allows you to visually emphasize the hemispherical shape of the lower part of the plant.

The upper part of the shaping plant is sharpened and consists of a conical tip, the ridges of which descend without any bending down the slope.



**Picture 118. Drop shape.**

An evergreen shrub with landscape leaves is used as a cultivated plant in special boxes. Landscape plants suitable for shaping:

1. Japanese quince;
2. Yellow acacia;
3. Ordinary berberis;
4. European silver bark;
5. Normal ligustrum;
6. Thorny hawthorn;
7. Elm-tree;
8. Spruce ;
9. Pine;
10. Oak;
11. Peginberry;
12. Bear;
13. Honeysuckle;
14. Viburnum;
15. Dogwood;
16. Maple;
17. Rose;
18. Rowanberry;
19. Lilac;
20. Currants;
21. Spirea;
22. Apple tree;
23. Bird-cherry;
24. Thuja;
25. Blackthorn;
26. White spruce;
27. Linden;
28. Juniper;
29. Willow;
30. Japanese quince;



**Picture 119. Spiral view of coniferous plants**



**Picture 120. Shaping landscape plants in different ways**

### **CONTROL QUESTIONS**

1. Terms of formation of landscape plants?
2. Methods of shaping landscape plants?
3. Landscape plants recommended for shaping?

## GLOSSARY

**The alley** is a sidewalk surrounded by trees on both sides.

**Alpinarium** is a landscape built on a combination of rocks and plants in uneven terrain.

**Baskets** are a landscape with enclosed spaces, fountains or flowerbeds with a geometric shape.

**Lawns** are a thick, soil-covering layer of grass that consists of grains, rarely legumes.

**Generative parts** - flower, bouquet, fruit, seed.

**Flowering arrays** are large areas of tall and medium-sized flowering or landscape deciduous plants placed on lawns.

**A group** is a complex of plants that looks integral when viewed.

**Grouped crops** are a set of loosely arranged herbaceous plants with different shapes.

**Live walls** are thick green walls that are planted in the form of dense hedges of trees and shrubs, growing flat when pruned.

**Flowerbeds** - flower beds of any geometric shape (circle, triangle, square, rectangle, rhombus, etc.).

**A cuttings** are a piece of plant made from annual twigs.

**Mixborders** - (mixed rabatkas) - a wide range of plants, consisting mainly of perennial plants, placed close to each other, correctly and incorrectly shaped.

**Grafting** is the process of growing some buds or a piece of twig cut from a flower by attaching it to another plant.

**Parters** are landscaped areas with a straight geometric shape.

**Offshoot**- a seedling that takes root by burying the mother plant branch in the ground.

**Seedling** - transplanting seeds to a wider feeding area to obtain seedlings.

**Garden bed** is a right-angled pitch, three times the width and three times the width.

**Regeneration** is the restoration of lost, damaged parts or the whole body of a plant.

**Scarification** is damage to a thick-surfaced seed layer (e.g., cannabis).

**Soliters** are solitary trees or shrubs.

**Stratification** is the storage of seeds at low temperature (0-50) for several months (usually beginning in the fall).

**Figured green crops** are artificially shaped crops given the correct geometric or stylistic figure shape.

**Climbing plants** are shrubs and herbaceous shrubs.

**Green hedges** are dense plantations consisting of trees and shrubs 2.5-4 m high and 1-1.3 m wide.

**Botanical name of the family of local and introduced landscape plants widely used in landscape gardening in Uzbekistan, as well as Uzbek, Russian and Latin names of species.**

**LIST**

<b>№</b>	<b>In Uzbek</b>	<b>In Latin</b>	<b>In English</b>
<b>I. Evergreen plants</b>			
1.	Акация (оқ)	<i>Roninia pseudoacacia L.</i>	False acacia
2.	Апельсин	<i>Citrus sienensis</i>	Orange
3.	Аралия	<i>Aralia jipanica</i>	Aralia
4.	Аспарагус	<i>Asparagus plumosus</i>	Asparagus
5.	Бегония (қирол бегонияси)	<i>Begonia rex</i>	Begonia
6.	Дафна	<i>Sauras nobilis</i>	Royal
7.	Деворгул (оддий деворгул)	<i>Ligustrum vulgaris</i>	Laurel
8.	Деворгул (япон деворгули)	<i>Ligustrum japonica</i>	Ligistrum vulgaris
9.	Деворгул (ялтироқ деворгул)	<i>Ligustrum fligidum</i>	Ligistrum japonica
10.	Жўка	<i>Tilia L.</i>	Lime tree
11.	Кашмир сарвиси	<i>Cupressus caschmeriana Royle</i>	Kashmir cypress
12.	Кордилина	<i>Codyline australis</i>	Cordilina
13.	Лимон	<i>Citrus Limon</i>	Lemon
14.	Мажнунтол	<i>Salix L.</i>	Willow
15.	Нормушк	<i>Econymus japonicum</i>	Euonymus
16.	Пальма	<i>Kentia forsteriana</i>	Palma
17.	Сариқ тол	<i>Salix vitellina L</i>	White willow
18.	Сохта каштан	<i>Castanea sativa</i>	Sweet chestnut
19.	Тафлон	<i>Saurocerosus afficeinalis</i>	Cherry laurel
20.	Туйа	<i>Thuja occidentalis</i>	Tuya
21.	Фигус	<i>Fichus elastia</i>	Ficus
22.	Филодендрон	<i>Philodendron</i>	Philodendron
23.	Хеномелес (япон беҳиси)	<i>Cydonia japonica Pers</i>	Japanese quince
<b>II Landscape flowering shrubs and trees</b>			
24.	Бодрезак	<i>Viburnum opulus L</i>	Guelder rose
25.	Бузина (маржон дарахт)	<i>Sambucus L</i>	Elderberry
26.	Вейгела	<i>Weigela</i>	Weigela

27.	Гўзал наъматак	<i>Rosa canina</i>	Rosa canina
28.	Дарахтсимон гортензия	<i>Hydrangea arborescens</i>	Hydrangea arborescens
29.	Йирик баргли гортензия	<i>Hydrangea hortensis</i>	Hydrangea hortensis
30.	Ирга	<i>Amelanchier Med</i>	Shadbush
31.	Қормева	<i>Symphoricarpus</i>	Symphoricarpus
32.	Магнолия	<i>Magnolia L</i>	Magnolia
33.	Мушмула	<i>Mespilus germanica L</i>	Medlar
34.	Настарин	<i>Syringe</i>	Syringe
35.	Оддий мирта	<i>Myrtus L.</i>	Myrtle
36.	Оддий тафлон	<i>Lauracerasus officinalis</i>	Lauracerasus officinalis
37.	Оддий шумтол	<i>Fraxinus</i>	Ash
38.	Ошловчи тотем	<i>Coriaria L</i>	<i>Coriaria</i>
39.	Тилла қорағат	<i>Ribes aureum Pursch</i>	Golden currant
40.	Тобулғи	<i>Spiraea L</i>	Spirea
41.	Туркистон четани	<i>Sorbus turkistanica L.</i>	<i>Whitebeam</i>
42.	Филадельфус, сохта жасмин	<i>Philadelphus</i>	Philadelphus
43.	Хушбўй атиргул	<i>Rosa odorata</i>	Rosa odorata
44.	Хушбўй малина	<i>Rubus odoratus L</i>	Flowering raspberry
45.	Чингиз	<i>Viburnum</i>	Viburnum
46.	Қизил эман	<i>Quercus rubra L.</i>	Red oak
47.	Қизил қорағат	<i>Ribes rubra</i>	Redcurrants
<b>III The leaves are fragrant landscape plants</b>			
48.	Ананас хидли ялпиз	<i>Mentha Pinedo</i>	Pineapple mint
49.	Кенг баргли лаванда	<i>Lavandula latifolia</i>	lavender broadleaf
50.	Қалампир ялпиз	<i>Mayentha piperita</i>	Peppermint
51.	Қора райхон	<i>Basilicum "Dark Opal"</i>	Basil "dark opal"
52.	Ош райхон	<i>Ocimum basilicum</i>	Sweet basil
53.	Сув ялпизи	<i>Mentha aquatica</i>	Water mint
54.	Энсиз лаванда	<i>Lavandula angustifolia</i>	Lavender real or angustifolia
<b>IV Landscape deciduous plants</b>			
55.	Асл лавр	<i>Laurus nobilis</i>	Laurel noble
56.	Дурагай синерария	<i>Cineraria hyrida (Senecio cruentis)</i>	Sineraria hybrid
57.	Линден ирезинаси	<i>Iresine lindenii</i>	Irezine Lindena
58.	Хербстан ирезинаси	<i>Iresine herbstii</i>	Irezine Herbst
59.	Япон нормушки	<i>Euonymus Japonica</i>	Japanese euonymus

<b>V Ampel and creeping plants</b>			
60.	Йирик баргли бўригул	<i>Vinca major</i>	big periwinkle
61.	Йирик баргли карнайгул ёки найчагул	<i>Campsis grandiflora</i>	Campsis grandiflora
62.	Каприфол шилвиси	<i>Lonicera caprifolium</i>	Honeysuckle
63.	Кичик баргли бўригул	<i>Vinca minor</i>	Caprifol
64.	Қирмизи нил	<i>Ipomea purpurea</i>	Ipomea purpurea
65.	Оддий девпечак	<i>Hedera helix</i>	Ipomoea purpurea
66.	Текис баргли	<i>Campanula isophylla</i>	Plush ordinary
67.	Қўнғироқ гул	<i>Wisteria sinensis</i>	Equifoliate bellflower
68.	Хитой глитсинияси ёки вистерияси	<i>Lathyrus odoratus</i>	Lathyrus odoratus
69.	Хушбой нўхат	<i>Bignonia cepreolata</i>	Bignonia
70.	Чирмашиб ўсувчи бигнония	<i>Wisteria floribunda</i>	Wisteria floribunda
<b>VI Flowering aquatic plants</b>			
71.	Ботқоқ игири	<i>Acorus calamus</i>	Ordinary calamus
72.	Ёнғоқли нилуфар	<i>Nelumbo nucif</i>	Walnut lotus
73.	Оқ нилфия	<i>Nymphaea alba</i>	White Water lily
74.	Сариқ нилуфар	<i>Nelumbo lutea</i>	Yellow lotus

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# **LANDSCAPE GARDENING**

Bosishga ruxsat berildi 24.08.2023. Bichimi (60x84) 1/16. Shartli bosma tabog'i 9,5.  
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