

Vivekanand College, Kolhapur
(Autonomous)

Department of Botany

B.Sc. III

Topic: Types of Garden

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Lecture No. 1

History, scope and importance of gardening, aesthetic values and different types of gardening



History of gardening in India

The history of systematic gardening in India is as old as civilization of Indus of Harappan which existed between 2500 B.C and 1750 B.C. During the period, people were living in well-planned houses.

Harappan pots were generally decorated with the design of trees. In every village, trees including *Ficus religiosa* (pipal) and *F. bengalensis* (banyan) were planted for worship as well as for shade.



Ficus religiosa (pipal)



F. bengalensis (banyan)

Ayodhya city - Gardens were planted with fruit trees and flowering plants lotus (*Nelumbo sp.*) and different kinds of birds.

During exile, **lord Rama and Sita** are believed to have observed a number of trees and were fascinated by beautiful flowers.

One such tree was Ashoka (*Saraca indica*)



Kadamba
(*Anthocephalus cadamba*)

Another epic '*Mahabharat*' written by saint Vyasa also mentions about gardens.

During the Mahabharat era, pleasure gardens were planted with flowering plants.

The famous tree of this era was Kadamba (*Anthocephalus cadamba*), which is associated with **lord Krishna**

History of gardening in India

The great poet Kalidas has described the numerous flowering plants of that era in a number of his books.

In 'KumarSambhav' trees like Ashoka, Kalpvriksha, Shirish flower, *Butea monosperma*, parijatham (*Nyctanthes arbotristis*), *Mimusops elengi*, lotus and lilies have been mentioned



The great Emperor Asoka (264-227 B.C.) adopted arboriculture as one of his state policies.

He encouraged the planting of avenue trees. His son Prince Mahendra took a sapling of the Bodhi tree (*Ficus religiosa*) from India and planted it at Anuradhapur in Sri Lanka (250 B.C.).

In the works of Kalidasa during the rule of Chandragupta II, we find the mention of several flowering trees including the

Asoka tree (*Saraca asoka*)

Kadamba (*Anthocephalus cadamba*),

Arjuna (*Terminalia arjuna*)

Butea monosperma

Parijatham (*Nyctanthes arbortristis*)

Bauhinia variegata

Mimusops elengi

Albizzia lebbek



The creeper '*Madhavi latha*' (*Hiptage madablata*) occupied a prominent place in his play '*Sakuntala*'. In the same play we find the mention of pleasure gardens. In Meghduta he describes the women of Alakapuri to have used *Kadamba* flowers to decorate their hair in the monsoon and carried pink lotuses in their arms.

The famous poet Bhana Bhatta describes a number of flowering plants including the Banyan, Sal, Champaka, flame of the forest, *Mimusops elengi*, Kadamba, Ashoka and the Indian coral in his famous book *Harsh Charita*.

Vatsayana (300–400 A.D.) in his book 'Kamasutra' gives a pointer of the joyful civic life of that period.
He narrates four kinds of gardens.

Pramododyan meant for the enjoyment of the royal couples
Udyan where the kings played chess, enjoyed the dances of the maids and jokes of the court jesters

Brikshavatika the garden where high-placed persons in the king's court enjoyed life with courtesans

Nandavana which was dedicated to **Lord Krishna**.


Scope of ornamental gardening and landscaping

- Gardening which was only an art and science in the earlier days has now emerged as a huge industry
- With the importance and need of gardening in improving and conserving the environment being strongly felt now, the concept of landscaping and gardening is growing rapidly.
- Ornamental gardening and landscaping has expanded as a multi-faceted industry surrounding activities such as propagating and education ornamental plants, landscaping, production of growing media, pots and other accessories, *etc.*, generating huge employment opportunities and simultaneously promoting activities that would improve the environment

Garden Styles

Formal, Informal and Wild gardens





Formal gardening

A garden laid out with complete regularity on formal lines and in accord with the methods of classic design, the plantings being in symmetrically arranged rows or geometrical figures

Formal gardens tend to heavily on symmetrical plantings (each side of the garden is a mirror image of itself if viewed from the middle) and highly formal plant forms such as topiaries and clipped hedges to form edgings and garden rooms

Formal Gardening

Square and rectangular geometric forms are repeated in the various hardscaping features of formal gardens
symmetrical balance is achieved when the same objects (mirror images) are placed on either side of an axis



The key features of formal design are

- The design is stiff as everything is done in a straight and narrow way.
- If there is a plant on the left hand side of a straight road, a similar plant must be planted at the opposite place on the right hand side i.e., mirror image of each other.
- The plan is symmetrical with square, rectangular and roads cut at right angles.
- Flower beds are arranged in geometric designs.
- The arrangement of trees and shrubs is necessarily geometrical and kept in shape by trimming and training.
- Other features like fountains, water pools, cascades etc. are used for further attraction

Demerits

- Formal gardens have no ‘secrets’ and the element of surprise is lost.
- However, attractive focal points at terminal and intersecting points of paths and roads are provided to make the formal garden effective.
- Present day home gardens are laid out in formal design only at the frontage.



This image of a Formal Landscape Example is a Garden Design that fits a formal colonial home- the hedges are equally spaced on both sides of the walk. The planting design is symmetrical and both sides of the walk match.



Trimmed formal hedges, edges, cypress, Ashoka trees and topiary are typical features of a formal garden
Usually, formal gardens are designed for public parks, university/ library gardens, or essential government buildings

Rashtrapati Bhavan – New Delhi, India



Informal gardens

- The idea behind this design is to imitate nature.
- Hindu, Buddhist and Japanese gardens lay no emphasis on formality.
- Woodlands (vanams) and running water (streams and rivers) was the main feature around which the garden was created in natural way.
- Brindavan of Lord Krishna was a woodland.
- Every temple was provided with irregular shaped lotus tanks.
- Japanese developed a natural style of gardening.
- It is in Japanese garden that the asymmetric balance has been perfected.
- The further the man is isolated from nature (due to industrial revolution) the deep is the longing to go back to nature.
- The industrialized cities have become concrete jungles with no flavour and aroma of nature.
- To prevent this, the concept of natural gardens was given motivation.



Informal gardens

Informal gardens are characterized by following **curves, non-symmetrical arrangements of features and spaces and plants** that are allowed to grow into their natural shapes

Informal gardens are harder to design than formal ones, as they are ruled by irregularity and natural looking planting

A site that is not geometric shape can be a sound basis for an informal garden. In general, planting in informal gardens includes **tall shrubs and taller trees** to add to the vertical dimension, and these will often hide the edges of the plot to create a feeling

The garden should revel in colour and should look as natural as possible

Informal landscaping is more relaxed than formal landscaping.
If hedges are used at all, they are not sheared flat, but instead they are left fluffy and soft

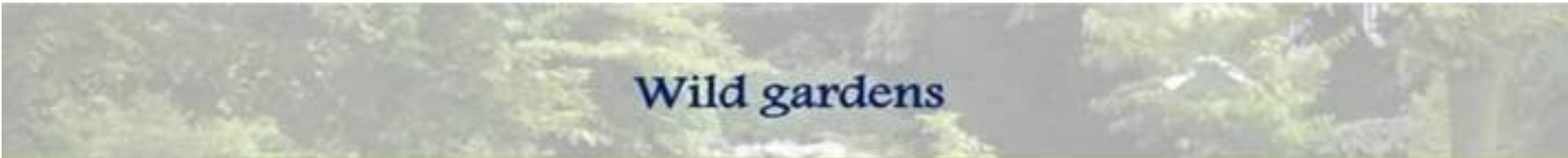


Informal landscaping is more in-step with nature,
it looks more natural



Key features of informal style / natural style

- This style reflects naturalistic effect of total view and represents natural beauty.
- Plan is asymmetrical according to the land available for making the garden.
- Smooth curvaceous outlines are more appropriate.
- Water bodies are more irregular in shape.
- Features such as hillocks, water falls, lakes, islands, cascades, rocks, and rustic hutments are provided to create rural effect.
- Plants are appropriately grouped and they are not trimmed, so as to avoid geometrical arrangements.



Wild gardens

A Wild garden was developed by **William Robinson** in the last decade of the nineteenth century. The concept of a wild garden is not only against all formalism, but it also breaks rules of landscape styles

The main idea of wild gardens is to **naturalize plants in shrubberies**

The garden passages should be opened in the woodland and trees, shrubs and bulbous plants should be planted among the forest flora to fulfill the idea of a wild garden

Allow the creepers to grow on the trees, naturally imitating those of the forest

Some modern versions of the wild garden are butterfly gardening, bird garden, biodiversity parks, bio-aesthetic planning and Nakshatra Udyan (The astral garden)

Wild gardens



Garden design

The history of ornamental gardening may be considered as **aesthetic expressions of beauty** through **art and nature**, a display of taste or style in civilized life

The earliest gardens were grown for practical reasons. People grew herbs or vegetables. However when man became civilized an upper class emerged with the freedom to enjoy purely decorative gardens

They also had servants (or slaves) to do the gardening for them

After the emergence of the first civilizations, wealthy individuals began to create gardens for purely aesthetic purposes

Garden design is the art and process of designing and creating plans for layout and planting of gardens and landscapes

Types Of Garden

1. Mughal gardens

2. Persian gardens

3. English gardens

4. Japanese gardens

5. French gardens

6. Hindu garden and

7. Italian gardens





Mughal Gardens



Gardening during Mughal era

- Among the Mughal emperors, **Babar** had high aesthetic sense and was fond of gardens and he made gardens at Panipat and Agra.
- **Aram Bagh at Agra** is still being well maintained by the Archeological Department.
- Mughal gardens are synonymous with formal style of gardening.
- The square or rectangular flower beds are special features of Mughal gardens.
- Another important contribution was the introduction of exotic plants like cypress, rose, carnation, narcissus, daffodils, lilies, tulips, *etc.*,

Broadly Mughal gardens can be categorised into two,

- i) Pleasure gardens of kings and queens and
- ii) Tomb garden.

The former gardens were made with the sole purpose of pleasure of king and Queen and family members whereas the latter gardens were attached to tombs of king or queen for giving peace to soul.





Symbolism in Mughal gardens

Water: Source of life

Eight divisions: Eight divisions of Quran

Alternate planting of cypress and flowering trees: immortality and renewal of life.

White flowering – *Bauhinia alba*: Youth and life

BABUR 1526-1530

- the first Mughal -king, had gardens built in Lahore and Dholpur
- E.g., RAM BAGH, AGRA

HUMAYUN - 1530-1543

- Humayun has not as such contributed much to the landscape architecture but he had built PURANA QUILA , DELHI in which there are traces of landscape

AKBAR -1556-1605

- Akbar built several gardens first in Delhi, then in Agra, eg, Humayuns tomb, Fatehpur sikhri
- These tended to be riverfront gardens rather than the fortress garden. Which influenced the later Mughal garden architecture

JAHANGIR 1605-1627

- Jahangir, did not build as much, but he helped to lay out the famous Shalimar garden

SHAH-JAHAN 1628-1658

- Shah Jahan, marks the apex of Mughal garden architecture and floral design.
- Example, Shalimar(lahore), Taj mahal, Red fort, Nishat garden(kashmir)

AURANGZEB 1658-1707

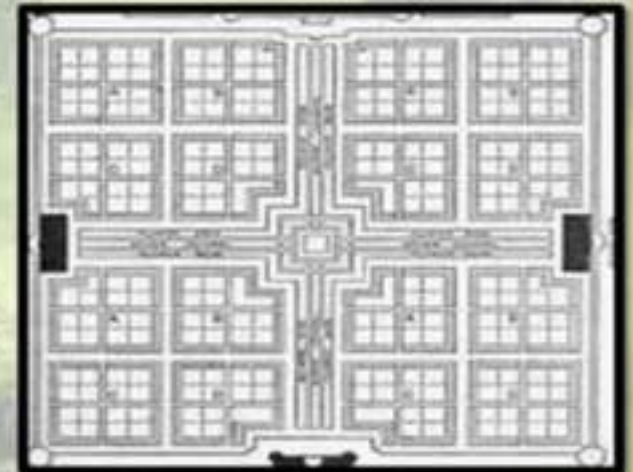
- Aurangzeb has not developed much gardens except Chauburji.

INTRODUCTION

- Mughal gardens are a group of gardens built by the Mughals
- This style was heavily influenced by the Persian gardens, particularly the Charbagh structure

CHARBAGH

- These gardens are private and formal spaces. The basic structure consists of four quadrants divided by
 - Waterways
 - Pathways
- Traditionally, the rich used such gardens in work-related functions
- These gardens balance structure with greenery
- The plants are often placed at periphery of the pools or path.



Typical layout of
Mughal Garden

- Mughal Gardens are generally divided into 4 sections –
 - Rectangular Pearl garden
 - Long Butterfly garden
 - Circular garden
 - Terraced garden



LONG BUTTERFLY GARDEN



RECTANGULAR PEARL GARDEN



TERRACED GARDEN



CIRCULAR GARDEN

FEATURES

- **Running water** Perhaps the most important element and a pool to reflect the beauties of sky and garden
- **Flowers** of different species were used for beautification of gardens, the flowers are chosen according to their representation and belief of **life and death**
- Significant use of **rectilinear layouts** are made within the walled enclosures.
- Typical features include **pools, fountains and canals** inside the garden.
- The garden might include a **raised hillock** at the center, important of the mountain at the **center of the universe in cosmological** descriptions, and often defeated by a **building or palace**



Terraces

Key features

- Terraces are components to maintain the proportion of land for extended view irrespective of topography of the area 7, 8 or 12 terraces symbolize 7 planets, 8 paradise and 12 zodiacal signs.
- The entrance is located at the lowest terrace.
- As the Mughal emperors came from a hilly country, the idea of building a garden in terraces came to them naturally.



Key features

Running water (Nahars)

- Water is the life and soul of Mughal garden.
- Love for running water made the Mughals to select sites close to hill sides
- Water channels were paved with tiles of brilliant blue color to reflect the sky and give impression of depth.
- At dusk, tiny lighted lamps were placed behind the water falls so that diffusion of light through the water creates a very pleasant sight.

Key features

Running water (Nahars)



Key features

High protecting wall

- Mughal gardens are protected by a high strong wall.
- The top of the wall is adorned with serrated ramparts.
- The presence of high wall- protection against enemy and hot winds of summer.



Entrance

- Entrance is generally tall and gorgeous.
- Doors are huge and strong wooden structure studded with heavy iron nails and spikes.
- Heavy gates are provided to protect the kings and gardens from enemy attack.



Key features

Baradari

- It is a canopied building with twelve open doors *i.e.*, three in each direction.
- From baradari, one can sit and enjoy the fresh breeze and watch dark clouds and birds in the sky.
- The masonry pillars of baradari were painted with designs of flowers in vases and the floor was furnished with thick carpets and cushions.



Scented flowers

- The flowers in Mughal gardens are mostly scented in nature and highly colourful.
- The colourful effects are created by massing mixed coloured annuals. Mixed colours have been preferred rather than mono, complementary or contrast colours.



RAMBAGH GARDEN, AGRA

- The **Ram Bagh** is the oldest Mughal Garden in India.
- Built by the Mughal Emperor Babur in 1528 A.D.
- Planned following the char bagh pattern
- Four main divisions crisscrossed by paths and waterways.
- Located about five kilometers northeast of the Taj Mahal.



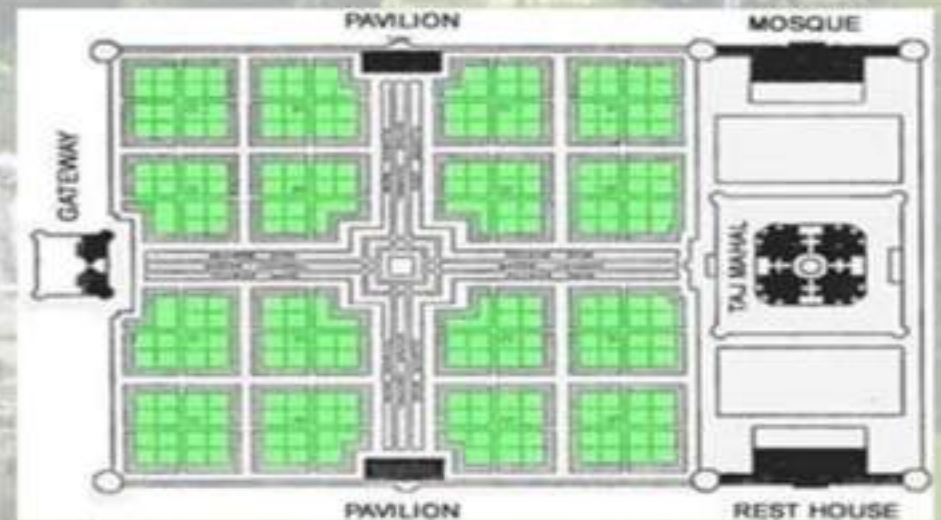
Shalimar bagh

1619 by jehangir completed in 1630 by shah jahan



The gardens of Taj Mahal

- Built by Shah Jahan
- According to the holy Koran, a garden is symbolic of paradise
- Trees of Taj garden are either that of Cyprus (signifying death) or of the fruit bearing type (signifying life) arranged in a symmetrical pattern



Shalimar Garden , Lahore

1642 under shah jahan

An adaptation of the chahar bagh concept and the shalimar bagh in Srinagar.

A three terraced garden with resting and meeting pavilions and also a royal bath.



There are 410 fountains in the garden and five water cascades.

Planted with fruit trees and other odiferous plants.



Rashtrapati bhavan-mughal gardens

20th century By Sir Edwin Lutyens

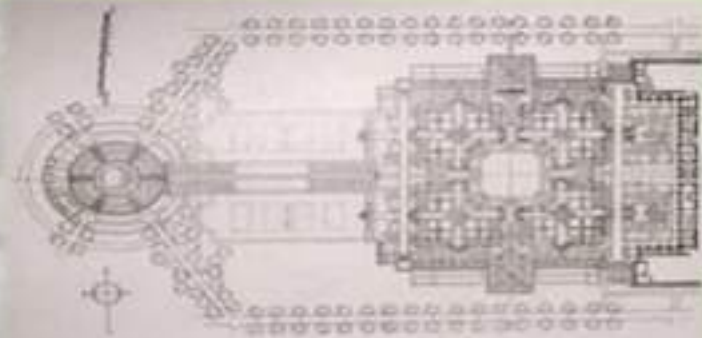


There is a butterfly garden about the circular pool and there also is a rose garden

The garden is home to lot of annual & evergreen plant species



A terraced chahar bagh with two north-south & east-west water channels with Fountains at crossings





Persian Garden



Persian Garden

The Persian Garden refers to a tradition and style of garden design which originated in Persia and which influenced the design of gardens throughout the larger region

The origin of Persian gardens may date back as far as 4000 BC

The decorated earthen of that time displays the typical cross plan of the Persian garden



El Partal in the upper Alhambra,
Granada

Features

These gardens are enclosed.

The main purpose behind building such gardens was to provide relaxation in different manner such as spiritual, leisurely
(e.g. meetings with friends)

"Pairi daeza" means enclosed space in Persian language

This Christian mythology adopted this term to describe the Garden of Eden or paradise on earth



Gardens Of Eden

The traditional Persian garden was composed of four essentials as below.

- Water for irrigation, display and sound
- Shade trees for shelter
- Flowers for scent and colour
- Music to delight the ears
- A water channels dividing the garden into four sections and this design is called as Char Bagh Design.
- There was usually a pool or small hill with a pavilion at the intersection of the channels.
- Shade trees and fruit trees were grown in four square plots.

TYPES OF PERSIAN GARDENS

Formal

- Hayat (public and private)
- Meidan (public)
- Char Bagh (private)

Casual

- Bagh (private)
- Park (public)

HAYAT (PUBLIC)

Publicly, it is a classical Persian layout with heavy emphasis on aesthetics over function.

Man-made structures in the garden are particularly important, with arches and pools (which may be used to bathe).

The ground is often covered in gravel flagged with stone.

Plantings are typically very simple – such as a line of trees, which also provide shade.



HAYAT(PRIVATE)

- Privately, these gardens are often pool-centered and, again, structural
- The pool serves as a focus and source of humidity for the surrounding atmosphere
- There are few plants, often due to the limited water available in urban areas

MEIDAN

This is a public, formal garden which emphasizes more on biotic elements than structure

Here we see bedding plants, trees, shrubs, grasses, etc

In this garden also the elements like gravel pathways, pools divide the lawns

The shade providing structures pavilions are also built





ENGLISH GARDEN



Gardening during British era

During the British Era, there was a lot of activity in gardening by Britishers and Indian Kings. Making of herbaceous borders and lawns gained momentum during the British era. Concentrated efforts were initiated to improve the gardening in three ways, namely,

Introduction of exotic plants from England and other countries

Establishment of Royal Agri-Horticulture societies and botanical gardens

Flowering annuals such as phlox, verbena, larkspur, dahlia, pansy, aster, antirrhinum, *etc.*, were introduced.

A number of botanical gardens were established in different parts of the country.

The important ones are,

Royal Agri-Horticulture Society Garden, Calcutta

Royal Botanical Garden, Darjeeling

National Botanical Gardens, Lucknow

Lal Bagh Botanical Garden, Bangalore

Government Botanical Garden, Ooty

Bryant's Park, Kodaikanal

- English gardens are the most beautiful gardens among all European gardens.
- The reasons are that the UK enjoys the typical grassland climate with well distributed rainfall which is favourable for the growth of herbaceous perennials.
- Since they were ruling many countries, valuable plant collection was possible from diverse areas.

The key features of British gardens in India are,

- i) lawn
- ii) rockery and
- iii) herbaceous border.

Lawn. Grass lawn is a principal feature of English garden. A lawn can be of any shape and it may be plain or undulating. It can be laid by seed, turving or plastering.



Rockery. It is the second important feature of an English garden. There are various types of rockeries.
Cold weather rockery of annuals like Alyssum, Calendula, Candytuft, Dianthus, Ageratum, Gaillardia, Verbena, Zinnia.
Rockery of succulents for dry areas.
Rockery of ferns in humid areas.

Herbaceous border. Flower beds or borders are characteristic feature of a British garden. The height of the plant, time, duration and overall colour scheme are taken into consideration.



The English garden usually included a lake, sweeps of gently rolling lawns set against groves of trees, and recreations of classical temples, Gothic ruins, bridges, and other picturesque architecture, designed to recreate an idyllic rural landscape





ROUSHAM



PALLADIAN BRIDGE-STOWE



TEMPLE OF ANCIENT VIRTUE-STOWE



STOURHEAD GARDEN

ELEMNTS IN ENGLISH GARDEN

- Recreations of classic buildings.



• Ruins



• Bridges



• Natural stone



- Cobblestone



- Wattle edging & panels



- Bee skep



• Lake



- Rolling lawns

Rolling lawn topography allowed visitors for surprises as they come around mounds or niches



- Tree groves

Tree groves were spread throughout the landscape with paths that allowed the gardens users to wander in and out of the groves and provide a view of rolling lawns against mass tree plantings



- Ha ha wall

The purpose of ha ha wall was to separate garden from the grazing land but was invisible from a distance .

Cattle could be kept securely in their fields without the use of hedges or fences to interrupt the view



- Grottos

Grottos were used as romantic hide outs.

They were manmade but build to resemble a dark natural forming cave.





HINDU GARDEN STYLE



HINDU TEMPLE GARDENS

- Hinduism is the world's third largest religion, and many historians believe it is the world's oldest religion.
- It is the predominant religion in India and Nepal, and is widely practiced in countries around the world, including Canada and the United States.
- Hindu temple gardens are places of worship, designed to connect people with gods. The gardens are rich in symbolism that reflects Hindu values



HINDU GARDEN STYLE

- Hindu gardens reflect the beliefs of Hinduism.
- Hindu gardens often include refuge for birds and other wildlife.
- Hindu garden designs are guided by the principle that everything in the universe is sacred.
- Plants are held in particularly high regard.



EXAMPLES OF HINDU GARDEN

- Akshardham Temple
- Laxminarayan Temple



ELEMENTS

- A Hindu garden is a tropical paradise resplendent with beautiful tropical flowers that explode with bright color and sweet aroma.
- Other features include shady trees, walkways, water features (such as natural ponds, waterfalls or streams), and quiet places to sit and meditate.
- Most Hindu Gardens include statues, lanterns and potted plants.
- Hindu temple gardens are carefully planned to reflect the belief that everything is connected.



Various type Of Hindu Garden

- Vanams' in ancient period served the purpose of a garden and was synonymous with garden.
- Vanams were the natural gardens furnished by the mother earth for the humans and animals.
- Vanavasam was part of the life of Vikramaditya, Rama and Pandavas .
 - 1.Rajavanam
 - 2.Tabovanam
 - 3.Brindavanam
 - 4.Ashokavanam
 5. Nandavanam

Rajavanam

- It referred to an area of natural forest exclusively meant for kings to hunt wild animals.
- More than hunting, it was the time spent in hunting that is relaxing in real sense.
- Later on four kinds of Rajavanams came into existence as detailed below.
 - i. **Promododyan**, Private garden for king and queen exclusively. It was attached to the fort where the queen resided.
 - ii. **Udayan**, A vanam where the kings passed their leisure time in playing chess, enjoying dance and listening to music.
 - iii. **Vriksha vatica**, A vanam meant for ministers and courtiers where they made merry with courtesans.
 - iv. **Special gardens** dedicated to god with water pools studded with lotuses and lilies.



Tabovanam

- It was meant for sages and hermits to meditate
- Tabovanams had trees of spiritual significance as listed below.
 1. *Guettarda specios*
 2. *Couropita guinensis*
 3. *Butea frondosa*
 4. *Callophyllum inophyllum*
 5. *Michelia champac.*
 6. *Ficus bengalensis*



Brindavanam

- 'Brindavanam' means a place of eternal bliss.
- It is supposed to be the advanced version of tabovanam.
- The Arvind Ashram at Pondicherry is an example for such a garden.
- Trees with showy, colourful flowers which express absolute joy found a place in Brindavans.



Brindavanam



Ashokavanam

It was a garden where royal ladies like queens and princesses relaxed. Asoka trees (*Saraca indica*) were grown in woodlots.

Nandavanam

They are small gardens established around village temples with flowering shrubs. The shrubs commonly grown in such gardens include *Tabernaemontana coronaria*, Hibiscus, Tecoma, Nerium, Jasminum spp., etc.



French Gardens

INTRODUCTION

- The French gardens were inspired by the "Italian revival garden."
- symmetry and geometry are the keywords when designing such gardens.
- the whole of garden is composed like a painting reaching for pure aesthetical qualities.
- Like a painting, it is also created to be seen as a whole



History

The French royal Garden architectes André Mollet and Jacques Boyceau de la Baraudière laid the groundwork for the French garden

Components of the French Garden

- **PARTIERRE.** A planting bed, usually square or rectangular, containing an ornamental design made with hedges, colored gravel, and sometimes flowers.
- **EMBROIDERY.** A very curling decorative pattern within a parterre, created with trimmed yew or box or made by cutting the pattern out of a lawn and filling it with colored gravel.
- **BOSQUET.** A small group of trees, usually some distance from the house, designed as an ornamental backdrop.
- **ALLÉE.** A straight PATH, often lined with trees.
- **TOPIARY.** Trees or bushes trimmed into ornamental shapes. In French gardens, they were usually trimmed into geometric shapes.
- **GOOSE FOOT *PATTE D'OIE*.** Three or five paths which spread outward from a single point.



Goose Foot *Patte D'Oie



Parterre



Embroidery



Bosquet



Allée



Topiary

The Principles of the French Garden

- The principle axis is crossed by one or more perpendicular perspectives and alleys.
- The most elaborate parterres, or planting beds, in the shape of squares, ovals, circles or scrolls, are placed in a regular and geometric order close to the house, to complement the architecture.
- The parterres near the residence are filled with broderies, designs created with low boxwood to resemble the patterns of a carpet, and given a polychrome effect by plantings of flowers, or by colored brick, gravel or sand.
- Bodies of water (canals, basins) serve as mirrors, doubling the size of the house



Trees at same height



Water body as mirror



Symmetrical plan



Overview from terrace



Palace as central point



Planting beds

Plants and Trees to use in French Formal Design

TREES

- Trees are planted in straight lines and clipped to keep a perfect shape and size. They may be formed into shapes to form topiary.
- Hornbeam, Beech, Chestnut, Elm and Linden for the most part.

HEDGES :-

- The clipped hedges are usually box, lavender, rosemary and occasionally santoline.

VEGETABLES :-

- Many French have wonderful vegetable gardens with the vegetables laid out in patterns and parterres in the style of the ornamental formal gardens.

PLANTS:-

- Bedding plants and bulbs are popular choices for parterres with for example, parterres filled with bulbs in formal patterns for spring flowering and then taken out and replaced with bedding plants for the late-spring and summer.



ITALIAN GARDENS

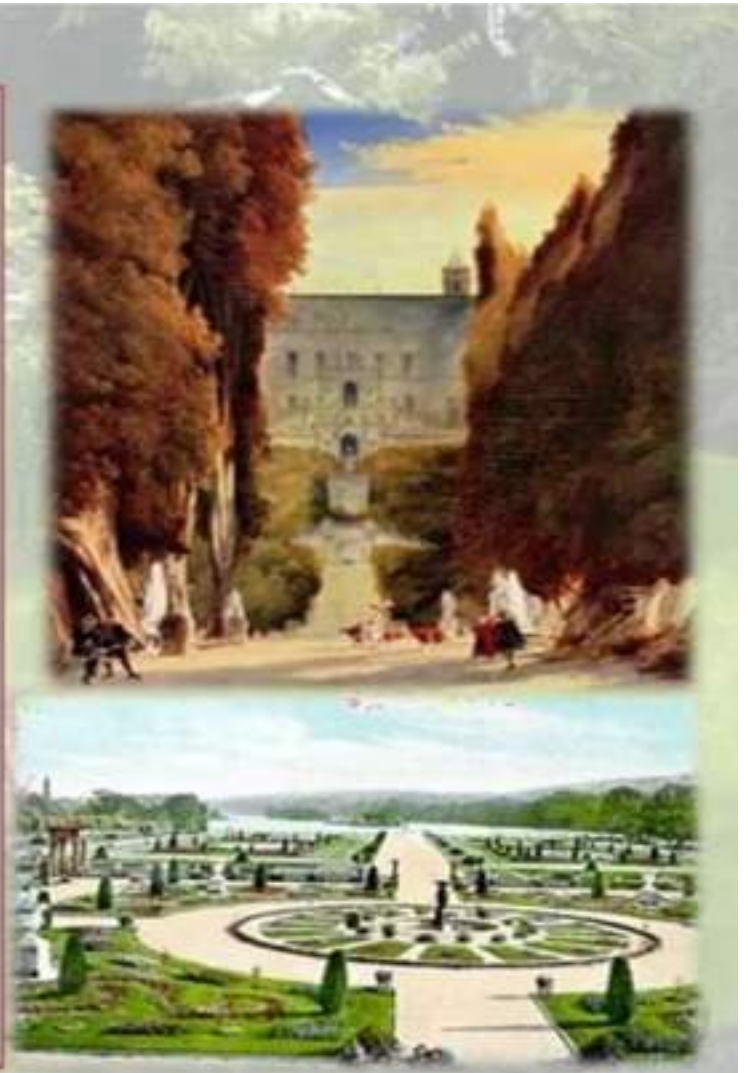
INTRODUCTION

- ❑ Italian gardens are known as Italian renaissance gardens .
- ❑ In terms of design italian gardens are the best in Europe, and best residential gardens in the world.
- ❑ It was inspired by classical ideals of order and beauty , and intended for the pleasure of the view of the garden .
- ❑ Italian gardens are based upon the , symmetry
axial geometry
order over nature.
- ❑ During renaissance period, change in , political, literature, industries, art and culture, architecture took place.



History

- ❑ New style of garden which emerged in the late 15th century at villas, in Rome and Florence .
- ❑ Innovated the art of gardening as well as the architecture of water ways.
- ❑ Italian Medieval gardens were enclosed by walls and were devoted to growing vegetables, fruits and medicinal herbs . Monastery gardens for silent meditation and prayer.
- ❑ Pipes built to create fountains with continuously flowing of water.
- ❑ The Italian Renaissance garden broke down the wall between the garden, the house, and the landscape outside.



FEATURES OF ITALIAN GARDENS

- Geometrical patterned beds , or parterres are a distinct element of Italian style.
- Traditionally , Italian garden had few flowers.
- Contrast of sun and shades .
- Water features
- Green being dominant color of the Italian garden.
- Displays careful design to showcase man's control over nature.
- A perfect Italian garden brings them with fusion of formal and informal spaces.
- The geometrical plants take care of formal preview and a natural presentation serves for the informal space.
- Separated into compartments that could be named, enclosed, and hidden to create an unfolding sequence of spaces.
- The axis organized and unified the whole composition

ELEMENTS OF ITALIAN GARDENS

1. Staircases
2. Balustrades
3. Sculpture
4. Cascades Pavilion
5. Parterres
6. Hedges
7. Shady Walkways
8. Water Fountains
9. Pavement
10. Grotto
11. Promenade





rometta

FOUNTAINS





- ❑ A huge amount of earth was excavated and used to construct new terraces ,arcades, grottos, niches.
- ❑ The steep slope of garden; more than 45m from top to bottom; posed special challenges.
- ❑ Canals were dug and 200m of underground pipes were laid to carry the water from artificial mountain under the oval fountain to rest of the garden



Japanese garden

- Japanese gardens style is 'nature in miniature' which enables them to meditate, be in harmony with nature
- Both the Persian and Japanese garden designs were based on their respective ideas of heaven.
- One most admirable feature of the Japanese garden is that while other major styles of gardening of the world changed radically or fallen into disfavour, the Japanese continued the same style for centuries but still remained popular.
- This can be attributed to the special relation of the Japanese gardens to nature.
- A most important teaching of the Japanese garden is possibly that "unless a garden has an air of peace it's not worth a place visiting.
- It should be a place where the mind finds rest and relaxation."

INTRODUCTION

- The idea of these unique gardens began during the Asuka period.
- Inspired by Chinese landscape gardens.
- Japanese gardens first appeared on the island of Honshu.
- Japanese gardens have their roots in Japanese religion of Shinto.
- Earlier gardens were designed in order to bring a spiritual sense to the gardens and make them places where people could spend their time in a peaceful way and meditate
- Today, in many parts of Japan and the western parts of the world the traditions of Japanese garden art are still maintained.
- The intensity of expression, continue to inspire many artists that aspire to create a personal Japanese garden of their own.
- Japanese gardens are commonly known as Zen gardens

ELEMENTS

- ☐ **Water**
- ☐ **Rock and sand**
- ☐ **Garden bridges**
- ☐ **Stone lanterns and water basins**
- ☐ **Garden fences and gates**
- ☐ **Trees and flowers**
- ☐ **Fish**



WATER

- ❑ Japanese gardens always have water, either a pond or stream, or, in the dry rock garden, represented by white sand. Water is used not just for its visual quality, but also for its sound.
- ❑ The Japanese have learnt to exploit the sound of water in all its various forms. It varies from powerful waterfall to water falling into a water basin, creating different emotions.
- ❑ The bank of the pond is usually bordered by rocks & in order to preserve the natural shapes, man-made ponds are asymmetrical.



ROCKS AND SAND

□ Rock, sand and gravel are an essential feature of the Japanese garden. The rocks are like the coordinates of a garden project.



□ Rocks and water also symbolize yin and yang, the hard rock and soft water complement each other, and water, though soft, can wear away rock.



GARDEN BRIDGES

- Bridges could be made of stone (ishibashi), or of wood, or made of logs with earth on top, covered with moss (dobashi); they could be either arched (soribashi) or flat (hirabashi).
- Bridges can be painted red if it is used for temple garden, as per Chinese tradition.



STONE LANTERNS & WATER BASINS

In its complete and original form, a dai-doro, like the pagoda, represents the five elements of Buddhist cosmology.

- The piece touching the ground represents chi, the earth; the next section represents sui, or water; ka or fire, is represented by the section encasing the lantern's light or flame, while fū (air) and kū (void or spirit) are represented by the last two sections, top-most and pointing towards the sky.



- Stone water basins, (tsukubai) were originally placed in gardens for visitors to wash their hands and mouth before the tea ceremony.
- The water is provided to the basin by a bamboo pipe and they usually have a wooden ladle for drinking the water.
- In tea gardens, the basin was placed low to the ground, so the drinker had to bend over to get his water



GARDEN FENCES & GATES

- There are three types of fences,
 1. The short fence which extends from the house into the garden
 2. An inner fence
 3. an outer fence.
- Short fences are screens that hide unwanted views or objects.
- They are about 6 or 7 feet high and add color and texture to the garden.
- Materials used are bamboo, wood and twigs of bamboo or tree.



TREES AND FLOWERS

- Plants are chosen according to aesthetic principles,
- Plants are used either to hide undesirable marvels or to serve as a backdrop to certain garden features, or to create a picturesque scene, like a landscape painting or postcard.
- Trees are carefully chosen and arranged for their autumn colors.
- Mosses often used to suggest that the garden is ancient.
- Flowers are also carefully chosen by their season of flowering.
- .Some plants are chosen for their religious symbolism, such as the lotus, sacred in Buddhist teachings, or the pine, which represents longevity.
- The trees are carefully trimmed to provide attractive scenes, and to prevent them from blocking other views of the garden

PRINCIPLES

- ❑ **Natural.** That should make the garden look as if it grew by itself
- ❑ **Asymmetry.** That creates the impression of it being natural
- ❑ **Odd numbers.** Like three, five or seven; that support the effect of the asymmetry.
- ❑ **Simplicity.** That follows the idea of 'less is more'
- ❑ **Triangle.** That is the most common shape for compositions made of stones, plants, etc.
- ❑ **Contrast.** That creates tension between elements
- ❑ **Lines.** That can create both tranquillity and tension
- ❑ **Curves.** That softens the effect
- ❑ **Openness.** That indicates interaction between all elements

KASAN AND BONSAI

KASAN

- These are miniatures of mountains in Japan.
- They are made up of ceramics, dried wood or strangely-shaped stones.
- They generally have sharp peaks.

BONSAI

- Bonsai is a Japanese art form using miniature trees grown in containers.
- The trees are usually less than one meter high and kept small by pruning, re-potting, growth pinching, and wiring the branches.
- Pine, cypress, holly, cedar, cherry, maple



- **Forms or types of Japanese gardens**

A Japanese garden may either be in the form of a large public park or a small family garden.

- The Japanese gardens are further classified based on positions, shape, and purpose. The important types are:

- **Hill garden**
- **Flat garden**
- **Tea garden**
- **Passage garden**
- **Sand gardens**

TSUKIYAMA / HILLGARDENS



- They strive to make a smaller garden appear more spacious.
- Shrubs are utilized to block views of surrounding buildings.
- The garden's main focus is on nearby mountains in the distance.
- The garden has the mountains as part of its grounds.
- Ponds, streams, hills, stones, trees, flowers, bridges, and paths are also used frequently in this style as opposed to a flat garden.

Hill garden.

- The main features of hill garden are hills, streams and ponds along with other features.
- This style is known in Japanese as *'Tsukiyama-niwa or Tsukiyama-sansui'*, meaning hills and water.

The features of the hill garden are described below.

i. Ornamental water

- Water is the life of the garden and necessary feature of hill gardens.
- It may be present in the form of big lakes with a calm tranquil surface or symbolically in the form of water basins of natural shape.
- Waterfall is another means to bring the natural setting into a garden. A group of stones is raised and water is allowed to fall from it naturally.
- The trees are planted in front of the place where water falls. Wells serve a dual purpose for beauty as well as utility.

ii. Islands

- Islands are important feature and are located in the middle of the pond.
- Rocks are used as foundation and soil is deposited on it.
- Then trees are planted and stones are erected in an irregular manner to give natural touch. Islands may be connected by a bridge or left isolated.
- Different Islands are formed because hills, lakes and islands are complementary beauties.
- They are given personal touch by naming them as Master Island, Guest Island and Central Island.

iii. Hills and hillocks

- A bigger sized broad viewed hill forms the main feature (Hill-1).
- Secondary to it, a lower hill is created adjacent to Hill-1 and is called companion hill (Hill-2).
- A lower Hill-3 is projected front opposite to Hill-1. Hill-4 is elegantly introduced in the foreground close to Hill-3 and below Hill-2.
- At the far end, Hill-5 is to be located which could be seen from all parts of the garden.

iv. Stones

- Stone structures are used to depict different natural moods, ideas of spirituality and melody.

There are 5 such types of stones as described below,

- **Status stone**, A tall vertical stone bulging out towards middle and finishing at the top suggesting a human at thinking or meditating.
- **Low vertical stone**, is rounded at the base and its top is bent resembling the bud of magnolia.
- **Flat stone**, is a low broad stone of irregular shape with a flat top suggesting submissiveness.
- **Recumbent or ox stone**, resembles trunk of an animal. Its long curved and bent boulder suggests an animal hiding in a bush.

Arching stone is arch like as its name indicates and suggests flexibility in thought.

v. Trees

- Trees are planted with certain objectives and have been given specific names.
Principal tree. Group of trees planted at the central part of background.
- **View perfecting tree.** A tree planted in the foreground of an island.
- **Tree of solitude.** Group of trees with thick foliage in the background on one side.
- **Cascade screening tree.** Group of bushy or leafy tree planted at the side of waterfall to hide the portion of it.
- **Tree of setting sun.** is planted in the west side to filter the glare of setting sun.
- **Distancing tree.** Pine plants planted to give a forest look.

vi. Garden lanterns

- Stone and bronze lanterns were used to decorate Buddhist temples.
- They became the thing of beauty in gardens also. Standard lanterns or legged lanterns or stone lanterns are used in an informal manner to decorate the garden.

vii. Garden pagoda

- It may be in the form of stone tower or pagoda. The roof may have three, five or seven a nine or eleven separate roots.

viii. Garden bridges

- They are made of natural wood of stone varying in size and width.
- They are used to connect islands.
- Either single stone or many pieces have been used to make the bridges sometime, semicircular arch.
- Form of bridges are constructed on the special ponds to permit the passage of boats under it.
- The bridges are named as wooden trestle bridge, 'peeping' bridge, 'Granite slat bridge' curved bracket bridge, Chinese full moon bridge etc.

CHANIWA / TEAGARDENS



- They are built for tea ceremonies.
- Tea house is where the ceremonies occur, and the styles of both the hut and garden are based off the simple concepts of the sado.
- There are stepping stones leading to the tea house, stone lanterns, and stone basins where guests purify themselves before a ceremony.
- The teahouse is screened by hedges to create a sense of remoteness

Japanese Tea Gardens

In Japanese culture, the tea ceremony has gained the status of national ceremony and has been intricately woven with life style. Tea garden is nature recreated in miniature in front of the house.

The present day Japanese tea garden is sectioned into three areas viz., *sotoroji* (outer section) *machi* (middle section) and *uchiroji* (inner section)

Outer section. The guests are supposed to wait after removing shoes. Paths will be provided with stepping stones to lead to middle section. Stone benches of irregular size are provided and the area is not planted with many kinds of plants except grasses.

Middle section. Stone troughs with water are kept for the guests to clean themselves before making entry into the inner section. Here also the stepping stones and naturally looking objects are located in a improper manner.

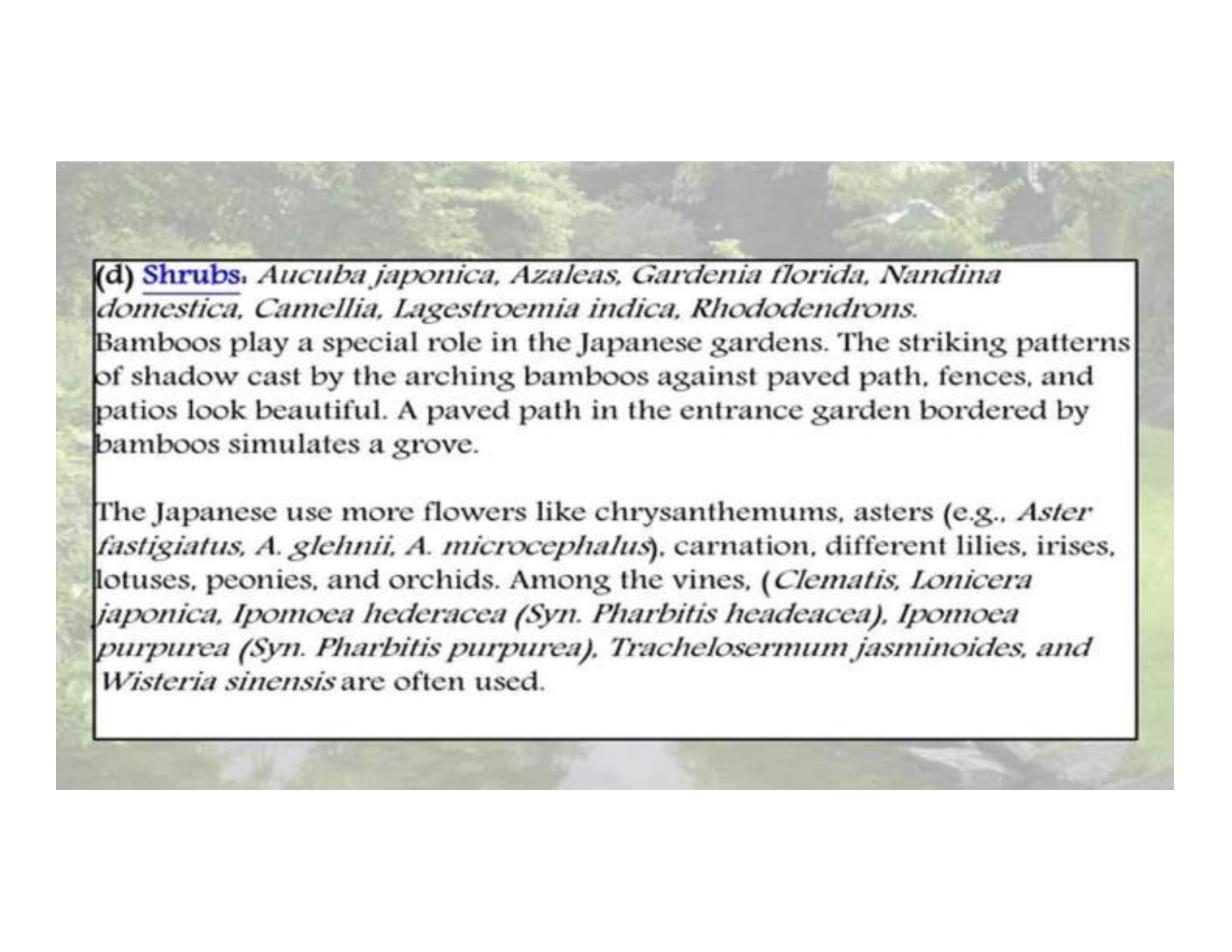
Inner garden. It is extremely simple and natural stones, lanterns, rocks water basins which look as antiques are placed. The trees, shrubs, annual and grasses are put in an informal manner. A rustic well compete with lever, rope, bucket, pulley etc. is an essential feature of inner garden. Hedge walls are provided to look natural. The selection of trees is such that when the outer garden is exposed to the light the inner must be darkened by shady evergreen trees.

Flat gardens

Flat gardens lack ups and down and are devoid of hills, streams and ponds. They are created for confined places and are secondary in importance. Mostly 'Moore' type gardens are developed to create scenic beauty, other adornments like stones, wells, water basins, trees, etc. are used. Water current of an ocean effect is produced by covering the land surface with pure sand. The rocks or pebbles are so arranged that they give an effect of diversion or rush of water.

Some typical trees of Japanese gardens are,

- (a) **Evergreen trees**, Pines, different species of *Abies*, *Cryptomeria japonica*, *Podocarpus macrophylla*, and *Juniperus chinensis*
- (b) **Deciduous trees**, Maples (*Acer species*), Poplars (*Populus sp.*) Mulberry, (*Morus alba*), and *Salix babylonica* (willow)
- (c) **Flowering trees**, The most commonly used plants are different *Prunus* species, besides *Magnolia grandiflora* and others



(d) **Shrubs.** *Aucuba japonica*, *Azaleas*, *Gardenia florida*, *Nandina domestica*, *Camellia*, *Lagestroemia indica*, *Rhododendrons*.

Bamboos play a special role in the Japanese gardens. The striking patterns of shadow cast by the arching bamboos against paved path, fences, and patios look beautiful. A paved path in the entrance garden bordered by bamboos simulates a grove.

The Japanese use more flowers like chrysanthemums, asters (e.g., *Aster fastigiatus*, *A. glehnii*, *A. microcephalus*), carnation, different lilies, irises, lotuses, peonies, and orchids. Among the vines, (*Clematis*, *Lonicera japonica*, *Ipomoea hederacea* (Syn. *Pharbitis headeacea*), *Ipomoea purpurea* (Syn. *Pharbitis purpurea*), *Trachelospermum jasminoides*, and *Wisteria sinensis* are often used.


KARESANSUI / DRY GARDENS/



- Also known as rock gardens and waterless stream gardens.
- Influenced by Zen Buddhism and can be found at Zen temples of meditation
- Found in the front or rear gardens at the residences.
- No water presents in gardens, raked gravel or sand that simulates the feeling of water.
- The rocks/gravel used are chosen for their artistic shapes, and mosses as well as small shrubs.
- Plants are much less important (and sometimes nonexistent)



- Rocks and moss are used to represent ponds, islands, boats, seas, rivers, and mountains in an abstract way.
- Gardens were meant to be viewed from a single, seated perspective.
- Rocks in karesansui are often associated with Chinese mountains such as Mt. Penglai or Mt. Lu. Karesansui.
- Stones are usually off-white or grey though the occasional red or black stone were added later.



KATSURA IMPERIAL PALACE GARDEN, KYOTO

- Lake of 1.25 hectares was dug, hills and islands were formed, beaches made, pavilions built and planting undertaken.
- Has 16 bridges connecting the lake.
- Lake used for boating parties and the surrounding land as a stroll garden, in effect a tea garden on an enormous scale.
- The 'Katsura Tree' (*Cercidiphyllum japonicum*) was associated with the God of the Moon and the garden has a platform to view its rising.
- There are 23 stone lanterns to light the stroll path after dark.
- Stone basins were used for hand-washing before a tea ceremony.
- Garden designed not only for meditation (Zen) but also for ceremonious courtly pleasures.



JAPANESE TEA GARDEN CALIFORNIA



☐ The oldest public Japanese garden in the US.

☐ This complex has many paths, ponds and a teahouse features native Japanese and Chinese plants and trees.

☐ The garden's 5 acres contain sculptures and structures influenced by Buddhist and Shinto religious beliefs.

☐ Many elements of water and rocks to create a calming landscape designed to slow people down.

A photograph of a traditional Japanese garden. In the background, a small waterfall cascades over a series of rocks. The water flows into a pond in the foreground, which is surrounded by large, dark grey rocks. The garden is filled with various green plants, including ferns and bamboo. The overall atmosphere is peaceful and natural.

THANK YOU.....