
UNIT 2 GARDEN DESIGNS – TYPES AND STYLES

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2.0 OBJECTIVES

After going through this unit, you will be in a position to:

- know the differences between types and styles of gardens,
- explain the differences between formal and informal gardens,
- describe various special features of the various styles falling under formal gardens,
- explain various special features of the various styles falling under informal gardens, and
- know various characteristic features of various garden types and styles.

2.1 INTRODUCTION

In the holy Bible, there is mentioning of Eden, a garden where Adam and Eve first lived. In the earlier civilizations, religion and mythology played a major role in the life of our ancestors. Agriculture started some 10,000 years ago and that too probably by women as the men-folk had been away for fishing, hunting and collecting fruits; and the horticulture had been a part of agriculture. Then

there had been natural gardens for food, shelter and enjoyment; rivers for water to drink and for other uses; and caves for dwellings. Looking into the requirements, the cultivation of the food plants started, and when they were sufficient with food, pleasure gardens were created initially with isolated culturing of ornamental and scented plants probably during ‘Indus Valley Civilization’, in Middle East, in China, in America or elsewhere or at different places one by one but independently where people had been enjoying the beauty of nature and going for meditation. Many countries for many centuries had been calling the pleasure gardens as paradise though now the term is obscured. In a well maintained garden, people enjoy the surrounding and feel happy, get solace, solitude, tranquillity and achievement, apart from fresh air to breathe in as gardens on the earth work as lungs in the body.

Irrespective of the creed, caste, culture or religion, people like gardens. A group of people worldwide like wild and naturalistic gardens, some asymmetrical while some other people like the symmetrical gardens. Some like growing their plants in natural form while others prefer training and clipping of the plants to a definite shape. Some people want rocks, pebbles and sands in the gardens with minimum of plants while some other people prefer water plants in the form of formal or informal pools or in conjunction with rock garden while still some other people prefer many other features in a garden. In fact, the garden is a private refuge where one can enjoy beauty of the nature, and can gain tranquility and achievements. The garden is also a place for attaining eternal peace through meditation. In fact, English gardens were conceptualized by British monasteries in the 10th century B.C. when they grew vegetables and fruits to feed the people of the monasteries, grew flowers for religious offerings, grew herbs and medicinal plants for human consumption and cure, domesticated fish for feeding the people of monasteries, etc. And as the time passed, at an elevated and central place a lavish house was built. In the 14th century, Botanical Gardens started coming into shape and the monastery’s utilitarian gardens transformed into flower gardens. In the 16th century, flower beds, knot gardens, topiaries and terraces were introduced in the English gardens. In the 17th century, the annual flowers got their way into the garden but this came into prominence only in the 18th century. At the same time, herbaceous borders, shrubberies and rosaries were introduced in the garden. This century matched with the inception of French gardens characterized by stone and water works, long and wide paths and ornamental fountains. In the 19th century, the term landscaping was conceptualized and many institutions developed imparting teaching and training in landscaping, landscape architecture and floriculture, and still the metamorphosis in garden development is going on at a very fast pace.

2.2 GARDEN TYPES AND STYLES

There are, in fact, only two types of gardens i.e. i) formal with many styles such as American, Arabian, Egyptian, French, German, Italian, Moorish, Mughal, Persian, Portuguese, Spanish, etc., and ii) informal with certain styles such as Chinese, English, Japanese, etc.

2.2.1 Garden Types

There are only two types of gardens, symmetrical and asymmetrical. Sometimes the third type is also described as wild gardens but, in fact, this is a combination of asymmetrical type and a forest as are being described below.

2.2.1.1 Formal, Architectural, Geometrical or Symmetrical

Formal garden is square or rectangular in shape where axis is drawn in the centre of the garden, dividing the garden into two equal parts, one part being the exact prototype of the other for every type of features, elements or adornments. The design of the formal garden is simple, ordered, elegant, balanced and well proportioned. The features of formal gardens are straight paths, well mown lawns, edgings, well maintained hedges, topiaries, borders, formal beddings in blocks of strong colours, vistas and focal points, and sometimes parterres, knot or sunken gardens. In formal gardens, whatever size of space is available but that is utilized to better advantage. The walls, the borders, the hedging, the edging – all are accommodated in limited space. Out of many features, if any feature is to be created in a single number, it can be created at the end of the axis or somewhere in between but at the junction points so that balance of the garden is not spoilt. The axis may be in the form of a straight path, a straight road or a straight canal or flowing water. This design is very easy to create but is labour-intensive as requires very and regular maintenance. Such gardens are suitable in cities, or adjacent to the houses and bungalows. These gardens are created on even land so the land is made to fit the plants.

2.2.1.2 Informal, Asymmetrical or Naturalistic

Informal garden is of asymmetrical shape having no strong and ordered lines and instead has more flowing shapes with limited or controlled plantings in informal groups but in simple ways. Informal gardens are misunderstood with wild or mismanaged gardens but, in fact, if laid properly it looks quite natural. Though it is less labour-intensive but at times this also requires maintenance otherwise it will become quite messy and untidy with straggling branches where human penetration will also become difficult. Therefore, in such gardens balance is secured through asymmetrical plan but one should not forget all form of design as are found in formal gardens. Axis will be there which will divide the garden roughly in to two or sometimes in three parts. A large area will have to be planted with lawn which will have to be maintained properly. The rock garden, the water garden, watercourses, waterfall, curved as well as straight but scarce paths, hedges normally unclipped, flower beds in irregular shapes, bedding plants, trees, shrubs, climbers, bulbous plants, annuals, cacti and other succulents, fernery, palms and cycads, bamboos, reeds and other ornamental grasses, etc. will have to be planted in undulating beds and blocks having irregular shapes. Since such gardens normally have undulating topography so the plants are made to fit the land.

In the last decade of 19th century, William Robinson expounded the idea of **wild garden** where he advocated growing of plants as these grow in the wild – the unmown lawn, the untrimmed edges and hedges and instead growing them as if these grow in their native haunts, the scattered planting of bulbous plants here and there, in the lawn and elsewhere as these naturally grow in the pasture, meadows and woodlands, and the climbers trained up the trees to imitate the nature as these grow in the forest. His idea was to grow native species in natural associations for imitating nature but with little restrictions of maintenance so that these may not deviate from the basic idea of a garden and may rather look like a forest.

Check Your Progress Exercise 1

Note : a) Space is given below for answers.

b) Compare your answer with that given at the end of the unit.

1) Define formal gardens.

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2) Define wild gardens.

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2.2.2 Garden Styles

There are various styles of gardens to suit every person whether it be under formal type or informal, and these are American gardens, Arab (ian) gardens, Egyptian gardens, French gardens, German gardens, Italian gardens, Moorish gardens, Mughal gardens, Persian gardens, Portuguese gardens, Spanish gardens, Chinese gardens, English gardens, Japanese gardens, etc. and all these are described here under. Here all the styles fall under formal type except the last three.

2.2.2.1 American Gardens

First evidence of pleasure gardens in America is available as early as 1604 through a map drawn by Samuel de Champlain of Neutral Island in the St. Croix river between Maine and New Brunswick. These were two little patterned gardens in the formal 16th century style. Prior to this, America and Canada being surrounded by enemies were in hardships for their survival so nobody thought about creating pleasure gardens. In 1682, Philadelphia was planned for development as a green country town in square ornamental plots; about 4 ha open space in the centre of the town and four more spaces for public squares were provided. From 1750, trees started to be planted in the streets. New England villages also had central open spaces, and likewise gardens in Williamsburg (Virginia) and at George Washington's house at Mt. Vernon (Virginia) were also created in formal William and Mary style in the second half of the 18th century though these gardens contained boxwood parterres and the clipped hedges in the European style when this style did not have any patronage in Europe and had long been discontinued. The gardens were created in a more aristocratic way in the south, viz., Virginia, Maryland and Carolina. In the 18th century, many houses had stately patterned

gardens. Thomas Jefferson's Monticello (Italian for little mountain) in Virginia was built in the latter half of 18th century at 174 m high hill. The top of the hill was flattened to create a site 180 m x 120 m for house and lawn. Landscape slopes were created on every side. Estate gardens were created in formal style having French and Spanish influence but in between the end of Revolution and 1830. In the mid-19th century, i.e. before the Civil War which broke out in 1860s, English landscape style made an impact in America which spread at a very rapid pace engulfing New York soon after and in the first half of the 19th century 340 ha land in the centre was acquired where a central park in 1854 was created in the 'Capability Brown' style with traffic flowing through it. In Boston, gardening started in 18th century having porches with flowers, shrubs and park-like streets. It was 'People's Parks' in Chicago with a football ground having walks around this, a gymnasium, a children's playground with a shallow pool, and a swimming pool with baths. At the Pacific coast, fine gardens were developed with Spanish ideas. In the second half of the 19th century, garden activities in States increased with a rapid pace, people as per their status used to make gardens *vis-à-vis* garden estates, and the horticultural club and press emerged, along with numerous seedsmen and nurserymen. The Whitney garden at Old Westbury, and Tobin garden at Syosset, both on the Long Island were formal and fine creations, first one with informal woodland and lawns under the shade of trees and the second one being actually a collection of gardens, *viz.*, one of box and tulips, the other of perennials, the third of azaleas, and an accentuated long naturalistic pool among the trees. One more garden created so beautifully on the Island was Nelson Doubleday at Mill Neck, which had considerable use of box-edged borders, clipped hemlock hedges, pink dogwoods as specimens, and pergolas trained with hardy vines. Apart from these, there had been many more beautiful gardens on the Long Island.

The garden of Oakleigh Thorne at Millbrook, New York was spacious and had a formal French-style alley of maples, topiary garden, shrubs and trees, and naturalistic pools at less formal parts. The Kouzmanoff garden at Port Chester, New York, which started in the late 1940s was a small low-terraced garden having different elevations with various divisions but linked by paving. In about 7 ha land around old-style Pennsylvania house owned by Mrs. Lewis H. Parsons at Appleford, Villanova, a garden creation was started in 1920 which contained almost every landscape feature, *viz.*, meadows, woodland, paved terraces, dogwood and lilac walks, potted plants in profusion, fresh water streams (brooks), waterfalls, a duckpond, a swimming pool, and specialized gardens: rose garden, boxwood garden, wall garden, rock wall plantings, flowering shrub garden, wild flower garden, etc., all being in unity and proportion to each other, hence each part was quite attractive and impressive in itself. The Dixon garden at Chestnut Hill, Pennsylvania was uncommon to American gardens due to extremes of climate. It had interlocked terraces to one side with a quite large lawn, native trees and flowering shrubs arranged in a very effective manner so that it may provide all the year round effect.

The Du Pont gardens; Kennett Square at Longwood, Pennsylvania is one of the great gardens of the world where an attempt has been made to accommodate as many ornamental plants of the world as possible. This garden has 1.4 ha area devoted only to glasshouses, replanting of the borders and the flower beds with the change of the season, illuminated colour fountains and organ music which remind the Italian Renaissance gardens. The other Du Pont garden at Wilmington,

Delaware was a formal French style garden. Middleton garden was founded by Henry Middleton at Charleston in 1741 with the idea of having an Old World garden with profusion of flowering which was impossible to get there. Still this garden exists with the first camellias supplied by Andre Michaux, a French plant collector and nurseryman, in 1787. This formal garden of the days before the Revolution has water-gate with patterned pools and terraced cascades, formal beds, and azalea-lined or otherwise walks, and this garden at present has the finest camellia collections in the world. Magnolia gardens on the Ashley river at Charleston which was begun in 1840s and was planted with first imported *Azalea indica*, and a collection of camellias is a classic pattern garden with informal paths, black pools forming from the bark of the cypress, lawns, space with scattered trees, etc. resembles just like English parkland. A semi-tropical garden with the influence of Spanish garden style was the de Golyer garden in Dallas, Texas which came into offing by the end of Second World War (1939-45). The features of this garden were walls, arches, paved terraces, potted plants and potteries, house approach through a long, curving and wooded drive, branched paths from the avenue to various parts of the garden, terrace, a lake, lawn, fountain, flower garden, rose garden, etc. In this garden, architecture and vegetation, both were mixed up in harmonious manner. Before the World War I (1914-18), the Kanzler garden in Detroit was created with sufficient use of sculpture in the formal French style.

There had been influence of even Japanese garden style in America. The Green garden at Sausalito, California is the best example of the type. Such gardens had a very steep hillside, pot plants on wooden deck, dwarf pines and cut-leaved Japanese maples, bamboo screens, etc. as the Japanese features. The creation of Mueller garden at Pasadena, high in the foothills of the Sierra Madre, started in 1948 based on Japanese ideas. The large Merrill garden at Seattle was in formal style and similar to a French parterre. The features were fine turf and bright coloured flower beds of low growing annuals in a frame of clipped boxwood to create a carpet effect, and a central circular pool surrounded by four small rectangular rose beds on all the four sides.

The great gardens of America were at their peak in 1930 but many of them started disappearing due to the Depression Years of 1930s when costs of the commodities were rising alarmingly as had been again in 2008-09, there had been dearth of skilled labour and the alarming labour cost, the cities had been expanding and the pressure on the available land was increasing. The problem had been the same even in Great Britain. After second World War was over, the garden making in America was influenced with Arabic, Chinese, English, French, Italian, Japanese and Persian styles but maintaining their own characteristics. Americans do not use fencing between the gardens but have well maintained lawn in the front of the house, the shaping of the garden is done in a way to present the best view of the garden from the house so the garden-side wall is normally made of glasses, construction of rock garden though it made late entry but it fascinated Americans in the 1920s when English landscape gardener Ralph Hurcock introduced this there, and patios as living areas taking the place of the backyards.

Though Americans have great passion for gardening but during colonial times the scene was dominated by informal English garden styles while afterwards by formal Italian, Spanish and French styles. Moreover, where they had even lands i.e. in the plains and the foothills, they created formal gardens but on the hill

slopes and peaks they created asymmetrical gardens with geometrical touch i.e. informality in the formal gardens. By and large, Americans like symmetrical garden styles.

2.2.2.2 Persian, Arab and Moorish Gardens

The history of the garden in Persia is quite old and was based on heaven or paradise as in case of Japanese garden though both differ widely from each other. Chinese gardening ideas reached Japan in the 6th century A.D. at the time when Arabs were in an Islamic sword spree across North Africa and into Spain and to the East into Persia (now Iran) and all the old **Persian gardens** then were dotted with the sway of the Islam [Muhammad or Mohammad, the Arabian founder of Islam (570-632) and Koran or Quran (the sacred text of Islam, believed by Muslims to record the revelations of God to Muhammad)]. In Persia, small town houses had small gardens with high walls and narrow and shallow irrigation channels, the wealthy people had large gardens having irrigation channels (canals) lined with tree avenues, central pool lined with blue tiles and in the middle a pavilion split into four sections around the building. The third form of gardens were having palaces on slopes with a background of mountains, a pavilion at the top over the terraces which were watered by streams, a pool at the bottom of the slope, and a long and straight tree avenue up to the gate. The third forms of gardens with palaces were being built outside the town so that through avenues the towns could be seen even if it is up to three kilometers. They used crafted materials such as masonry, carved marble stones and highly polished stones. Persians used to make the gardens in terraces of the hill slopes and were taming some watercourses (*nahars*) straight into their gardens, the flowing cold water being the concept of Persian 'paradise'. The fruit trees represented the symbol of life while *Cypress* symbolized death and eternity. In Persian gardens, the selection of trees and their planting is done in a very systemic manner. Persian gardens have magnificent gateways. The Persia, after the Arabs was also invaded first by Mongols and then the Turks which took with them the faith of Islam and the Persian culture including making of Persian gardens. The idea of Persian gardens via Samarkand reached India through Persia's eastern adjoining countries, to be flourished in the hands of the Great Mughals in India.

The **Arabs** invaded Persia, and told them that according to Koran they all should make four gardens, two each with two fruit trees apart from shade trees, and two fountains each, while other two gardens with dark composition again having two fountains flowing in each garden, with fruit trees, pomegranates and palm trees. Afterwards, instead of four parts the internal garden was divided into eight parts representing the eight divisions of Koran. The whole garden, characteristic to the art of Islam, acquired the geometrical symmetry. Along the water channels they made regular alternate planting of fruit and cypress trees to symbolize death and the renewal of life at the flowering every year. Persians preferred date, fig, walnut, olive, orange, pomegranate, mulberry, nectarine, quince, cherry, apricot, apple, pear, plum, peach, etc. as fruit trees, and cypress, ash, elm, pine, oaks, maples, willow, alder, poplar, beech, juniper, etc. as shade trees. Among the flowers, they have passion for rose, narcissus and many other flowers. Among the roses, *Rosa damascena*, a native of that land was highly valued for its fragrance. The ancient Persian garden idea was mirrored in North Africa and Sicily and then to Spain via Baghdad and Damascus, by the Arab conquerors who had gained the so called gardening knowledge from Persia and when the

emirs of Sicily were conquered by the Normans, its effect reached to Western Europe *vis-à-vis* England.

In the eighth century A.D., the interest in gardens in **Moorish Spain** started with the first Omeyyad Emir, Abd er-Rahman. After conquering Cordoba (S. Spain), he started creating gardens on the model of a garden at Damascus in Syria for which he sent persons to Turkestan and India for collecting plants and seeds. The third emir, Abd er-Rahman got created a terrace garden high up on the slopes of Sierra Morena, suburb of Cordoba (southern Spain) with palace at the top. This was the beautiful garden in the midst of attractive mountain scenery. With the passage of time, there had been drastic refinement in the ideas of Persian gardens. At the place of tanks and fountains, a lake with water pavilion was formed at Toledo (Central Spain) with stained glasses ornamented with gold where Sultan used to enjoy the beauty and coolness of water not only during the mid-day but also at dusk under the lamp light. The Alcazar garden at Cordoba built during Moorish days, still below the patio has remains of the old garden with paved terrace having two large ornamental tanks for water supply to the fountains and the 'glorietas' (arbours of rose and jasmine) displaying eight pearl pavilions of the Muslim paradise though cypress avenues have vanished. At the Alhambra gardens in Granada (Spanish city), the Moorish culture is strongly visible as the gardens and buildings are completely merged with each other in a way that architecturally both look as one entity. Here the park is at lowest level, four of the Moorish garden courts of the palace remain, and a canal runs through the whole length of the court and terminates at each end in a fountain. Though the gateways are quite large in Persian gardens but in Moorish courtyard gardens these vanished.

2.2.2.3 Egyptian Gardens

In the second half of the third millennium B.C. an empire in the Babylonian soil came into offing where king Sargon had planted foreign trees, vines, figs and roses. Tiglath-Pileser, king of Assyrians about 1100 B.C. was also interested in trees and he dreamt planting of cedars, box and certain other trees of foreign origin in the parks of Assyria, though no park existed there but he admired so. The story goes beyond the land of Tigris and Euphrates where a third river, Nile coming from Africa into the Mediterranean passes between the Arabian and the Western Deserts, laying a fertile belt along the sea, gave rise to another civilization, the Egyptian which was very comfortable as it did not face any war with the foreign soil because of being isolated. This country became very prosperous so many palatial houses were built and many temples erected having shade trees with sacred groves. The private gardens also had ponds. In a tomb painting of a typical Theban house, about the middle of the second millennium B.C., showed a house with garden having main gate opening to a tree-lined canal, and the garden divided into symmetrical beds with low stone walls. This was an absolute formal rectangular garden. The garden had large vine covered trellis in the centre erected on four rows of slender pillars. There were four small ponds with ducks or water fowls, waterlilies; tree avenues planted with doum palm (gingerbread tree), date palm and *Ficus sycomorus* for shade; two summer houses; and the ponds planted with papyrus reed (emblem of upper Egypt) and sacred lotus (emblem of lower Egypt). Pharaoh Thutmose III who reigned Egypt around the middle of the second millennium B.C. imported ornamental plants for his gardens as gardens by this time were in the peak of their development. Queen Hatsheput

during the same time developed a beautiful terrace garden comprising of three terraces ornamented with pillared covered walks, stairways and slopes leading to rock shrine at the top, ponds for cooling effects, and the trees (some 32 trees imported from Somalia) planted in the cut-holes of the rocks. People used to visit this garden from the river side through a long avenue of sphinxes (an imaginary winged lion-bodied creature with woman head) and trees. About 300 years later than Queen Hatsheput, another great Egyptian monarch, Rameses III gave 514 garden sites to temples. He originated growing of bushes and small trees in large engraved earthenware vases. Tutankhamen who ruled Egypt from 1361 to 1352 B.C., his tomb survived the modern times and on excavation the most familiar plants to Egyptians, viz., sycamore fig, the date and doum palms, the papyrus and the sacred lotus were recovered from the spots where these were buried along with wreaths of flowers, necklace of olive and willow leaves and lotus flowers, and the flower necklace prepared on the base of papyrus. This shows the love of Egyptians for flowers and gardens at national level and the gardeners in this country were the honoured men. When Western Europe was still in the Stone Age and when the great age of Greece and Rome had not yet begun, the Egyptians were enjoying formal gardens with lotus-filled pools.

2.2.2.4 French Gardens

Charles VIII of France when Marched into Italy in 1495, he was so impressed by the cultural achievements there that while returning back he brought some 22 Italian artists back into France with numerous art treasures including sculptures which he established in the court at Amboise on the Loire. Afterwards, French Renaissance started and he sent many of the French artists and other scholars from various fields to learn Italian culture, art and other ideas but Charles died soon and his reign was taken over by Luis XII, his successor, who shifted the court from Amboise to Blois where a mediaeval garden existed in a form of a strip which was enlarged in three terraces, all separated by enclosures with no connecting steps, the middle terrace with central pavilion and a Venetian fountain, being surrounded with wooden galleries full with green plants and the gallery also connected the house, and the lowest terrace with parterres. During 1516-20 when Villa Madama was being built and Francis I took the reign from Louis XII, Cardinal Amboise started working on the garden of the castle of Gaillon on the Seine above Rouen. Due to political turmoil in Italy again and due to hegemony of Emperor Charles V, Francis I was captured in 1525 in Pavia (Italy) and jailed in Madrid (Spain), and Italy was looted and devastated in 1527 but Renaissance in Italy, so long the gardens are concerned, continued. By this time in France, the concept for large gardens developed with a castle, flowing water or canal, a pond with fountains and effigies of sea-beasts, statues, avenues planted with trees, a pavilion, gallery or pergola and paths, grotto, parterres and clipped box bushes in various designs, and flower beds, all though in symmetrical form but without any order, harmony, balance and unity among all the features. By the middle of 16th century, in real sense, the French gardens had balanced features and symmetry, mostly in tune with Italian gardens. In the 17th century, Jacques Boyceau was the great artist in parterre making and he published his views on the subject in his *Traite de Jardinage* in 1638 and through which he advocated only two gardens – one a kitchen garden and the other a flower garden instead of several separate gardens then existing. He emphasized the proportionate heights of trees and shrubs *vis-à-vis* lengths and breadths of paths, to rest of the garden.

French garden style until 16th century was a copy of Italian garden when court life was shrouded with stiff formality but during 17th and 18th century this was shaped in a real form having very intricate and artificial designs for which credit goes to Le Notre who served the Royal Garden of Luis XIV from 1643 to 1700. His main creations include the garden at Versailles with long and wide avenues. Le Notre had to dismantle three villages in Vaux-le-Vicomte to create his vista, this being his first masterpiece. His creations of art are unparalleled among all the formal gardens. This style has strong architectural and symmetrical designs in proportion and scale of the building which this surrounds. The Le Notre style of formal garden dominated the gardens of civilized Europe for a long time. Credit goes to French gardens for developing park-systems in the last quarter of the 19th century.

2.2.2.5 Italian Gardens

Italian garden styles came into existence at the time of Renaissance (end of **Middle Ages**, the period in European history from about 14th to 16th centuries) when major cultural and artistic changes took place, Gothic architecture was replaced with the new and strong architectural and symmetrical designs, and the formal gardens that existed in ancient Greece and Rome inspired palatial and villa gardens of Italy and France in the 17th and 18th century. The characteristic features of these gardens are their strong symmetrical designs commensurate to the proportion and scale of the building where these are created. Italian gardens are often created on dominating or elevated sites with heavy masonry features but with different characters as to those of Persian or Mughal gardens. Italians constructed such gardens in the form of an elegant outdoor hall as extension of their lavish palaces (especially the palaces in having round arches, vaults, and domes) for entertainment *vis-à-vis* for showing their status and wealth. Italian gardens have well maintained terraced gardens often with parterres and topiary works, massive flight of stairs often of marble stones leading to a long and shaded walks planted with mostly evergreen trees or shaded with iron pergolas, complete with balustrade to connect the different levels in the garden, pergola, arbours of the evergreens, rosaries, fountains often in combination with sculptured stones or statues, cascades and flowing water (canal), the beds of flowers (bulbous, annuals, orchids, herbs, etc.). These all the features provided cooling effect in a Mediterranean hot climate. Such gardens also have well-proportioned urns or vases for citrus and ornamental plants. There had been sharp decline of the art of the Italian gardens with the fall of the Roman Empire but it left an impression that gardening could be a most respected form of art.

Renaissance influence was very clear in 16th century. In 1516, the work on first truly Renaissance Villa (Villa Madama) outside the walls of Rome, not to be used as residence but only for entertaining so it contained many courts. Here the garden and the house were merged with each other. Villa Cicogna at Bisuchio near Lake Lugano still has its 16th century character intact. During Renaissance time and afterwards, there had been a great deal with garden making in whole of Italy. In 1570, a small Renaissance garden was created in the vicinity of Florence, the Villa Capponi at Arcetri which still exists. An island in Lake Maggiore was converted into a vast pleasure valley, the work started in 1630 and completed in 1670. Two-third of the island was converted into a garden. It had some 10 terraces, some 30 metres above the surface of the lake. Whole of the garden was full of parterres.

2.2.2.6 Spanish, Portuguese and German Gardens

In the earlier part of the 16th century, the **Spanish gardens** were still influenced by Moorish ideas that had conquered Spain in the 8th century, though some 30 years ago they were finally defeated. A palace was designed and built on the Alhambra hills in Spain by Pedro de Machuca in 1526 based on Villa Madama of France and as per Charles V (1500-58, and who was king of Spain from 1516-56, and emperor of the Holy Roman Empire from 1519-56) vision of the Renaissance gardens of Italy. Before the retirement of Pedro in 1556, Charles designed a fine terrace garden around this palace. Afterwards, in true Renaissance style, many gardens with bordered beds, grotto, high boundary walls, etc. came into being installed with elegant statues and fountains, all in a balanced symmetrical form. The garden walls were full of inscriptions and old carvings. As per the last wishes of Charles V and also to match the victory of St. Quentin on August 10, 1557, Philip II started construction of a building in 1563 having all in one i.e. a monastery, royal palace and a tomb in the foothills of the Guadarrama mountains some 50 kilometres north of Madrid. This building had a very large court, the patio de los Evangelistas, an octagonal temple, a wide esplanade, a large garden with full of statues and fountains, many imported from Italy, all with Renaissance feeling. Some of the gardens which Charles V had created were given new look in the Renaissance style by Philip II, providing new avenues, fruit trees, fountains and statues, though only little of his works remains now. Again in 1628, many gardens were improved in the line of Italian and Roman gardens. Philip IV got built the Alcazar (a palace in Spain, especially built with designs of Moors) in Madrid which still exists as the main public park there and the gardens around this palace were designed by Cosimo Lotti with engravings which evidently show that still the Moorish influences existed there, but with no overall unity in the design. In this garden, the first hermitages due to the influences of the monks of San Jeronimo were included, symbolizing in the Spanish mind the union of religious and secular affairs. Later on, the creation of Buen Retiro marked the end of Italian influence in Spanish gardens but Spanish gardens were symmetrical in design and style.

During Renaissance time, certain beautiful **Portuguese gardens** were developed having strong influence of the Italian gardens, the first being at Bacalhao by a person who travelled from Portugal to Italy in 1521. He constructed his house with a court flanked by pavilions and an *alegrete*, the Portuguese equivalent of the *giardino segreto* of the Italian gardens or *giardini segreti* of the French gardens, i.e. the creation of grand view or focal point, at a corner of a very large terrace, and a large sunken basin some 27 metres long by the side of high walls in the opposite corner, in the side of which there was a hall with three pavilions, and at the other corners there were two small pavilions, but with no fountains, and with drastic deviations than those previously occurred in Spain or in Italy. Further gardens in Portugal, apart from these features, also included fountains, statues, geometrically formed parterres, water staircases within an avenue of trees, and large basins at the side of the terrace wall which sometimes occupied the whole length of the garden. The Portuguese gardens are formal in style.

The Renaissance in **Germany** was seen first through town gardens but with Italian influence because of the close trade links between the two countries. The money-lenders from Germany (Augsburg, Breslau, Nuremberg, Frankfurt and Ulm) to the princes of Europe, had gardens full of curious water features, statues,

an enclosure of green lattice-work having pillars crowned with pyramidal stone or busts, windows with potted flowers, geometrical parterre, flowers in pots, little boxed trees at the corners, well clipped hedge-work around, benches, wide middle path, and gates. The large gardens created in 1566 at the castle of Ambras in the Tyrol (Austria) and the one in Vienna a year or so later, also had Italian influence. Probably the first Renaissance garden was that of Rudolf II in the north of the Alps which had a castle with the garden having its main axis as a line of the fountains. German gardens were at their best in the early 17th century. Mirabelschloss in Salzburg garden created during 1613-19 was Renaissance in style but without any unity with the castle. The characteristic features of the German gardens were the castle, the terrace or lawn, flower beds, plants in pots, water features and water-tricks, fountains, many statues, lattice-work, pillars, parterres, hedges, benches, trees, grottoes (rain grotto, mirror grotto, a dragon coming out of a hole in the rock, drinking from the fountain and vanishing, singing birds, springing ruins as if falling, etc.), overall influenced by the Italian styles. The gardens in Germany were symmetrical in shape. The outbreak of the war in 1618 which continued for 30 years halted garden development in Germany.

2.2.2.7 Mughal Gardens

In 1519 Hernando Cortes and his Spanish army crushed the Aztec empire in Mexico and established a barbaric religion based on human sacrifice but the same time, opposite to this, there had been tremendous high order artistic development and attraction to the beautiful things including flowers. The approach to Tenochtitlan, the Aztec empire capital was through a causeway between lakes Chalco and Texcoco, and on the way there was Iztapalapan renowned for its large and extremely beautiful gardens in regular squares; the intersecting paths were bordered with trellises, creepers and aromatic shrubs; fruit trees from other countries; the bright Mexican flowers arranged nicely; water channels or canals for carrying irrigation water to all parts of the garden; and a large reservoir of stones. Spaniards were further amused to see the floating artificial islands used as nursery gardens on causeways over the lake in Tenochtitlan, terrace gardens between the houses and flower gardens on the flat roofs of the buildings. Parks and gardens had beautiful summerhouses decorated with fountains, irrigation channels and canals, lakes and their bathing places, puzzling paths and great variety of flowers and trees of all kinds. Therefore the very strong walls of unbelievable size, going from one mountain to another, were being built with an aqueduct at the top connected with the highest point of the park. In 1532 Francisco Pizarro conquered the Inca Empire in Peru where the beautiful palaces were made, and the gardens were established even under the less favourable conditions than in Mexico. Further west in India i.e. north-west of the Indian sub-continent, remarkable gardens appeared again in the 16th and 17th centuries, on the basic principles of old Persian gardens. Via the trade route from east to west, in 1220 Chenghis Khan and his Mongols also conquered Persia by burning Persian towns and slaughtering their populations. Great Timur (ancestor of the Mughal dynasty in India, 1335-1405) conquered Persia again and under his rule the country was comfortable where Bokhara and Samarkand flourished very well. In Bokhara, there were some 2,000 pleasure houses during his rule and he made 11 large canals to augment the proper water supply. Timur made his capital in Samarkand which was even better than Bokhara where a large area was brought under gardens. 'Bagh-i-Dil kusha' was in the east with a long avenue up to the town, another 'poplar garden' was there with a magnificent palace having Poplar Avenue and

'Bagh-i-Blisht' (the paradise garden) which Timur called his 'hermitage'. The palace accommodated many palaces, made entirely of the white marble of Tabriz, around which was a deep trench with two bridges over it opening into the gardens having fruit trees of all kinds; five paved avenues of trees in the form of platforms, leading from one tank to the other; six great tanks passing from end to end of the garden; a park with wild animals; and a clay hill in the centre of the hall. Zahir-ed-din-Muhammed, called as Babur (the Tiger) conquered Samarkand twice but being unable to retain his throne permanently he established himself in Kabul from where he tried to invade India unsuccessfully four times but the fifth time in 1526 he defeated Sultan of Delhi and established himself as the first Mughal (Mongol) emperor of India. Babur was brought up in the atmosphere of Persian art and culture and he had great love for poetry and gardens. During his rule in India, he visited Samarkand under the rule of his uncle and watched the gardens his uncle had created and with those ideas he created gardens in India. The common features of such gardens are square or rectangular shape, surrounded by a high wall, a lofty entrance gateway (up to four in large gardens), angles of gardens marked by octagonal pavilions, waterways at right angles to each other, a stone or brick-edged canal extending the whole length of the garden, water flowing to the bottom of waterfalls into a tank with many small fountains, avenues planted with trees around the boundary wall and along the paths in the garden, open turf squares with large trees at the corners or a tree in the centre, pergola and shady walks, flower beds, etc. all in a formal symmetry. Babur kept his capital in Agra and built Ram Bagh garden, the earliest garden of Mughals in India which is still surviving. Babur was succeeded by Humayun in 1531 so around his tomb in south of Delhi, a typical Mughal garden is made. Humayun's successor Akbar who ruled the country from 1556 to 1605 was the first Mughal to enter Kashmir where a number of gardens were made including Nasim Bagh in the form of terrace garden in an open position at the shores of Dal Lake which has now vanished. Nishat Bagh (the garden of gladness) was created on Dal Lake probably by Asafkhan but in the reign of Jahangir. In this garden mountains and water are set in a very charming manner and the garden constitutes 12 grand terraces, each dedicated to a sign of zodiac. The stream from the mountain rushes down through all the terraces with number of stones and marble thrones at every waterfall, and fountains in every tank. The garden is quite formal with flower beds to both the sides, with parterres at two of the terraces, the turf spaces, and a pavilion in the centre of the lowest terrace. Shalimar Bagh (abode of love, initially named as Farah Baksh meaning bestower of joy) in Kashmir was built in A.D. 1630 by Jahangir, helped by his son Shah Jahan where *zenana* garden is surrounded on all sides by the play of fountains, a most beautiful creation in a Mughal garden. Chasm-e-Shahi garden in Kashmir was made in 1632 by Ali Mardan Khan for Shah Jahan. After his death, Akbar was buried in Sikandra near Agra which was given a form of Mughal garden. Jahangir took the throne from Akbar who created many garden at Udaipur. Shah Jahan in memory of his wife Mumtaz Mahal made Taj Mahal at Agra with white marble which is enclosed through walls from three sides though the fourth side opens to the river Yamuna. In front of the building a canal runs through up to the gate and both the sides have lawn spaces and flower beds.

Mughal gardens are made on exact principles of Persian gardens except that former, in addition to Persian garden features, has a boundary wall, garden entrance or gate, *baradari* (an arbour-like structure made of stone and masonry with raised platform and concrete roof, having 12 or more doors, accentuated

with great masonry work) and tomb or mosque. However, terrace, *nahars* or flowing water, the background of mountains from the slopes of which perennial rivulet or river flows and that is tamed through the garden as an axis, and trees and other ornamental plants, are the most prominent features.

2.2.2.8 Indian, Sri Lankan and Chinese Gardens

In the 3rd millennium B.C., with the rise of the great civilization on the silt of the Indus valley to the north-west of the Indian sub-continent, chief city being Mohenjo-daro the civilization of which succumbed to invaders in 1700 B.C., it was found that inhabitants in and along their houses did not have any provision for gardens but were growing ornamental plants in pots and tubs in the courtyards and for indoor decoration, and had planting of trees, especially the sacred tree ‘pipal’ (*Ficus religiosa*) which had religious significance, which made the basis for creating fine gardens in India. And then **gardens in India** were almost similar as to western countries except the plants which in India were tropical in nature. The Buddha himself, as infant Siddhartha Gautama, was born in the forest of Lumbini in Nepal under a tree in the 6th century B.C. when her mother was going back to her parent’s home. Indian gardens had a great variety of flowers as has been said by a Chinese visitor to India in 5th century A.D. that one such garden given to the Buddha had innumerable flowers of various colours. Indian gardens were almost **informal**.

Two centuries after the death of Buddha, Buddhism spread to **Sri Lanka** and akin to Indian gardens, the parks and gardens along with the sacred buildings soon got their due places in Sri Lanka. These gardens were just like the ones then in India i.e. **informal**.

Chinese was animist thinking that everything (rocks, mountains, rivers, seas, sky, etc.) in nature has its own spirit, and when the Buddhism entered there in the 1st century A.D. the garden culture already existed there, their animist nature started changing but they still had the same reverence for the mountains. Record is there that large gardens were made for the emperor Chou about 2,000 B.C. as is found in the historical records of Ch’in dynasty (221 to 206 B.C.), and the Han dynasty which ruled China for four centuries (206 B.C. to 201 A.D.). Ch’in emperor Shih Huang Ti had the great park ‘Ah Fang Kung’, but emperor Wu-ti who reigned the Han dynasty from 140 to 87 B.C., had a passion for creating various gardens in every valley between the mountains, having palaces, pavilions and grottoes. With the founding of the Society of the White Lotus by Hui Yuan in A.D. 370, Buddhism started expanding and the park-like gardens developed for creating peaceful atmosphere. Sung dynasty from A.D. 960 until the Mongol invasion in the early 13th century A.D., made great cultural advances where large gardens were also made as is mentioned in a poem written in 11th century. These gardens are characterized by hills or piling of rocks (simulating mountains); the rocks; sand, shells and pebbles; seats; waterfalls or springs; pools with lotus and fish; steps; shelters; kiosks; a terrace; *zigzag*, winding or spiral footpaths made from sand, sometimes paved; bridges; rosaries; medicinal plants, herbs, and sweet-smelling plants; bushes; flowers; pomegranates; citrons and oranges; the bamboos; pines, firs, willows, and conifers; tea plantation; thatched cottage or palaces as to who created a Buddhist monk or a king; a pavilion a pillared hall at an isolated position for meditation and other functions. Gardening in China had a long association with painting. Since in China, by nature there was no symmetry so the creation of the garden was also **asymmetrical**.

The origin of oriental gardens is said to be some 3,000 years old as Chinese scholars, philosophers, artists and poets had been creating peaceful and quiet places in the form of asymmetrical gardens for the purpose of pleasure, contemplation, meditation, tranquility and achievements. They used to imitate simple and symbolic natural elements like simple buildings with tea houses, pavilions or temples, mountainous scenes, rocks, waterfalls, lakes or water reservoir and green valleys, like to that which occur naturally in the Chinese mountains, but only with a few plants. Such gardens had rocks in enclosures, winding or *zigzag* paths for viewing various creations, steeply arched water bridges for viewing water reflections, creation of dry gardens consisting of hills and stones in dry watercourses, and restricted planting of trees and shrubs though the country is very rich in the natural floras in the world, each one having an special place or meaning in the overall garden composition. The creation of garden only with a few plants is only because such gardens were not created by botanists or gardeners. There had been no noticeable change in the Chinese style of gardening with the rise and fall of the dynasties.

2.2.2.9 English Gardens

The history of British garden dates back to 14th century when monks and priests started growing vegetables for feeding the people of monasteries, herbs and medicinal plants. Gardens in England in Charles II's time were very formal but lacking in flowers. In the mid-16th century, flower beds, topiaries and terrace gardens were introduced into English gardens. Formality was intensified when in 1689 there had been accession to English throne by William and Mary from Holland. During this period, a prominent personality, William Bentinck, first Earl of Portland and a Dutch intimate of the king was appointed Superintendent and George London as Deputy Superintendent of the Royal Gardens. London in collaboration of Henry Wise had floated a firm in 1681 which was joined by Wise in 1689. London was quite talented and he was also sent to France by Charles II where he learnt French as well as Dutch styles. On his return he worked for Bishop Compton who was the famous grower of exotic plants during that period. For 20 years the firm of 'London and Wise' which also had a nursery of 40 ha at Brompton mainly for supply of evergreens, dominated garden design in England. For formal gardens evergreens are most suited as these can be kept in shape through clipping and show little change with the change of the weather. Garden styles in England in the last quarter of the 17th century were much influenced by the Chinese garden styles. Lord Burlington in 1719 brought back William Kent with him from Italy visit and kept him at Burlington House in Chiswick who designed a few gardens after 1730 away from the regularity in designs. In the first half of the 18th century, the estate of Lord Cobham at Stowe in Buckinghamshire was continuously developing. Lancelot Brown who was employed there in 1740s, first working under Bridgeman and then under Kent but both had grown old so after their retirement, Brown continued with full confidence and in 1751 he moved out to Hammersmith as garden designer. Brown's popularity as garden designer attracted royal attention and he was appointed Master Gardener to George III, initially to landscape the king's country residence at Richmond, which included both the Old Deer Park and the part of modern Kew Gardens near the Thames. Brown overhauled this garden completely and planted his groves and single trees, and created his usual landscape on the flat site but the garden lacked major water source. During this period (middle of 18th century), the gardens were laid out with more emphasis on architectural

features, *viz.*, curved paths, informal grouping of trees, rivulets or streams, artificial waterfalls and clipped hedges. The eastern half of the Kew Gardens of today was possessed by George III's mother (Princess Augusta of Wales) who had employed Sir William Chambers to style this garden. Serving Swedish East India Company, Chambers visited China and worked on nature's garden as is naturally found on the mountain peaks, glades and valleys. Jesuit missionary Jean-Denis Attiret in 1747 published a letter which was translated in 1749 in London where the Chinese art of gardening was described. In essence the letter tells that from one valley to another through a winding path adorned on the sides with little pavilions and charming grottos, the entire hills sprinkled with trees, especially with flowering ones, the sides of the *zigzag* canals or little streams looking not interfered but in natural form, wide at some places and narrow at other places as nature produces, and the flowers coming out from the crevices of the rocks on the banks in every season, all looking as if nature has gifted so. Influenced by the letter, Chambers, between 1756-63, divided George III's mother's garden at Kew into three parts with a peripheral belt. He built White House as Augusta's residence in the north of the lake, next to the house was a fine orangery in the classical style, a botanic garden in 3.6 ha area, a flower garden, and classical temples among the trees, two irregular meadows in the south of the lake for grazing by sheep and goats, and the most exotic buildings in the southernmost area. This letter was taken honourably as a kind of authority for 'natural' style in England and there a craze also developed for Chinese buildings. Brown died in 1783, and in 1788 Humphry Repton who was born in 1752 at Bury St. Edmunds took up the task of Brown. Though he subscribed most of the ideas of Brown but he used terrace from older styles, and 'monastic' or 'Tudor' flower beds in his designs. Repton died in 1816, the year after Waterloo, and with his death the art of landscape gardening almost dies, it is said so.

Afterwards, when American plants and other hardier species were introduced in the country, English gardens introduced shrubberies, and flower beds in various shapes among them being separated with 1.5-1.8 m grass strips, in 1825 Richard Harris advocated the 'bedding out' of half-hardy plants, then after 'carpet bedding' was introduced which flourished well up to 1880, rosaries and herbaceous borders also got place, and one by one many other types of ornamentals were introduced, *viz.*, trees, cacti and other succulents, orchids, ferns, etc. End of the 18th century introduced heated glasshouses. The first rock garden, in the entire history of gardens, was demonstrated by the firm of Backhouse of York with alpines in 1859 but when George Carling Joad of Wimbledon gave his collection of alpines to Kew and then only the true Kew rock garden was made in 1882 and then afterwards it was being introduced into every garden it was so liked by the British. In the late 1830s, again the idea for formal style took a violent turn and in 1890s the feelings for the older styles erupted. However, in the 20th century, further changes in garden style were brought and then in England there had been prevalence of the informal gardens.

Due to high rainfall and favourable climatic conditions, the natural ground cover in the English countryside is grass, that is why British garden architects, Repton and Capability Brown advocated that British gardens should look like the countryside and the garden should merge with it and there should not be any artificial barrier like the wall, fences or hedges. The main features of the English gardens are lawn, terrace gardens, paths and drives, pavilions, herbaceous borders, shrubbery borders, topiaries, trees and climbers, fernery, orchidarium, other

succulents, rosaries, flower beds and carpet bedding, bulbous plants, waterfalls, streams, water gardens, rock gardens, glasshouses, etc.

2.2.2.10 Japanese Gardens

The Japanese garden concept was borrowed from the Chinese some 1,200 years ago but with their own sources of inspiration in the hills, lakes and islands. Chinese gardening ideas reached Japan in the 6th century A.D. along with entry of Buddhism through China but Buddhism did not destroy their Shinto religion (original faith of Japan) and instead added a new dimension to the old faith. Japanese garden style differed from the Chinese because they have denser planting of properly shaped or dwarfed trees and shrubs, shaped stones, raked gravels or sands surrounding heaped or mounded islands, and stone lanterns. Japanese absorbed and transformed into their own through their art skills and abandoned the Chinese culture which was then most civilized in the world. “The special characteristic of the Japanese garden is the ingenious artistry and symbolism which turn the miniature landscapes into something more profound and eternal” (Mori, 1962). By the 8th century A.D. they had their full-fledged national culture through all walks of life. During 13th century A.D. when Zen Buddhism entered Japan, their culture got a further boost. Though Japanese live in the coastal lowlands but their country contains long sea coasts, islands having mountains from where water in the form of stream tumbles down up to the sea making lakes, pools and rivers in between and a large part of the country as forest area, and all of these they imitate in the garden in a simple form but in essence and in harmony considering unity, balance, scale, proportion, symbolism and calm and not on their natural scale. Their gardens contain trees, especially pines, maples, *Cryptomeria* close to a garden monument, plums, bamboos and shrubs in proper natural shape so sometimes clipped and trained, summerhouses, simple buildings with tea houses for resting, pavilions for viewing or temples for contemplating, islands, running water, cascades, lily-pools, mountains or wooded hills, rocks, sands, unpainted woodwork, stone lanterns, pagodas, bridges, arbours, shrines, shelters, tortoises, cranes and Buddhas but without exotic views or plants which are neither seen or nor found in Japan, with proper attention to naturalness and aesthetic rules. At least six different rivers named Tamagawa are in Japan, each noted for a different flower that grows on its banks. *Kerria japonica* and *Lespedeza bicolor* near a shallow stream which will convey of that river if these are planted somewhere. Likewise, Arashyama Mountains near Kyoto are known for cherries in spring and reddening maples in autumn so if these are planted will remind of that mountain. Japanese gardens have consistency not found in the west. In the past, Japanese gardens were being classified into five types of oriental garden: i) the ‘**flat garden**’ which comprises of simple raked sand or gravel, a vertical or flat stone, a bamboo, a well, water basins of stone in the form of an urn, stepping stones, and prostrate growing trees; ii) the ‘**dry garden**’ or ‘**sand garden**’ comprising hills and stones in groups of two or three, the spaces among the stones filled with fine white gravel, raked gravels to simulate rippling water, in dry watercourses and channels similar to Chinese composition; iii) the ‘**tea-house**’ is enclosed by a rustic fence equipped with a gate made of light material such as bamboo, then the inner garden having benches for rest and water basins or wells or both at the gate, and then there is tea house where tea is served; iv) ‘**hill and water garden**’ comprising of a well-formed landscape of hills made with earth mounds and exposed weathered stones, a watercourse, a lake, bridges, islands, lantern, stepping stones over the walks and other stones, and trees (pines and

others) among rocks; and v) ‘**passage garden**’ is made on the narrow approaches to the houses and the passages between two houses by placing a few prostrate rocks, stone slabs and by planting only a few centrally open and slender plants. It would be more appropriate to go on the chronological division as advocated by a Japanese writer recently based on ideas on garden composition to India which probably have come by Chinese through their studies of Buddhism in the 1st century A.D. ‘Dried up water scenery’ is created through dry river beds and lakes full of pebbles and stones as was garden of Ryoanji in Kyoto. In dry gardens sometimes even grasses and clipped hedges are also used. Muromachi period (A.D. 1325 to 1573) style also brought refinement and persisted further. Types of stones used in Japanese gardens are granite, red jasper, blue, white and yellow limestone, grey and green slates and volcanic stone with cavities. Generally, pebbles of granite, sandstone and flint as well as stepping stones are used for streams. The models for the gardens of the Japanese temples and monasteries even up to quite recent times was based on the historical associations of mountains, lakes and rivers related with the life and religion of Sakya Muni and when in the 6th century A.D., Buddhism reached Japan, the gardens were made at the early monasteries of Bido-in at Uji and Todaiji and Kofukuji in Nara. Gardens existed in Japan before Buddhism reached there as through Matsunosuke Tatsui’s *Japanese Gardens* in 1934 it is mentioned that Japanese gardens may be traced to the era of Empress Suiko (A.D. 592-628). Nara period (A.D. 645-781) gardens had Chinese influence. Heian period (A.D. 781-1185) introduced ‘**island garden**’ mostly in the estates with garden pools and one or more islands of quiet waters of symbolic meaning. Island gardens were of four types: i) the *Horai jima*, the sea island with vegetation but without bridge, ii) the *Fukije jima*, the sea island without bridge and vegetation *vis-à-vis* windswept, iii) the *Shujin-to*, the ‘Master’s Island’ with arbour located in the foreground near the bank and connected with a bridge, and iv) the *Kiakuju-to*, the ‘Guest Island’ with most humble affair in the background. During Kamakura period (A.D. 1186-1393), again the garden design changed. The strengthening of religion that followed civil war caused the creation of gardens with Buddhist ideas of paradise. Now the major features of the Japanese gardens were stones, water and evergreens. When Renaissance in Italy was starting, in 1492 Columbus brought the news to Europe that by sailing west from Spain, new land could be traced and the subsequent exploration revealed the existence of quite new continents of north and south America, and at almost the same time but on the other side of the world, in Xipangu (Japan) the tea-house garden and the tour garden were evolving. Muromachi period was succeeded by Momoyama period (1573-1603) and thereafter by Yedo period (1603-1867) when many large castles were built and the ‘tea-house garden’ was given special emphasis. Finally the tea-house garden was developed in three parts: the small area where guest enters and after a short walk enters the middle garden, which in fact, is waiting area having sheltered bench, from where the hosts lead the guest into an inner garden via the path of stepping stones after a pause and meditation before proceeding to the inner garden. The inner garden containing the tea-house is a small enclosed area provided with water basin and stone lantern. Here guest washes his mouth, hands and takes out his footwear before entering the small building. It was this period when ‘tour garden’ also got place in the Japanese style. In tour garden, many pockets are accentuated to create viewpoints in the garden so that viewers are enticed to such pockets where they may stand for a while and enjoy the beauty of the nature and where they may be tempted to meditate. For such sceneries, the tour gardens are created looking beyond it to the distant backgrounds of mountains or hills (it is said as **borrowed scenery** in

Japanese way of creations but in western countries borrowed scenery is that which seen somewhere outside and created in the garden) and the views themselves should be striking so that both in unison may create a beautiful view. Accents may also be created in terms of bridges (single stone slab, double stone slabs side by side, *zigzag* wooden bridges covered with *Wisteria chinensis*, bamboo or log bridges, and large wooden bridges with roofing or high arched style Chinese bridge); cascade (based on waterfalls e.g. ‘stepped fall’ or ‘spouting fall’); lakes; trees and shrubs around the banks of the lakes for concealing the outline *vis-à-vis* to hide the source of the waterfall to create an illusion; water basins for pure water at appropriate places; garden wells; stone lanterns (invented by Prince Iruhiko in 7th century A.D.), the sitting of the stone lantern being at the base of a hill, on an island, on the banks of the lake, near a well or at the side of the water basin, under an ancient tree not for lighting but just for its reflected beauty in the water or naturalness; stone pergolas 1.2-1.5 m high on water side for reflection in the pools or streams; sculptured Buddhas; effigies of tortoise or crane; summerhouses or arbours in the form of large umbrella; 4.5-6.0 m high thick hedges (*Podocarpus macrophylla* or *Cryptomeria japonica*, etc.) as boundary ; tea house gardens with clipped box hedge some 2.0 m high; two gateways (entrance and sweeping gateway); bonsai, etc.

In a nutshell, the features of Japanese gardens are the six types of gardens, *viz.*, the **flat garden**; the **dry garden**; the **tea-house garden**; the **hill and water garden**; the **passage garden**; and the **island garden**. Certain literature sources, apart from the six described above mention certain other features such as ***tsukiyama* hills**; ***nosuji* plains**; and ***karesansui* gardens**. Other prominent features are **Cottages** (arbours and tea rooms); sculptured **Buddhas**; effigies of **tortoise** or **cranes**; **stones and sand**; **Buddhist garden structure**; **pagodas**; **ponds or pools, lakes, and islands**; **waterfalls, cascades, streams and fountains**; **stone pergolas**; **garden paths**; **stepping stones, stones and flag-stones**; **bridges**; **fences**; **bamboo screens**; **hedges**; **garden gates**; **stone lanterns**; **water basins and wells**; **trees, other plants and mosses**; **bonsai**; etc. Though all these features are defined above or elsewhere except *tsukiyama* hills, *nosuji* plains, *karesansui* gardens, cottages, Buddhist garden structures, and pagodas which are being described here with. *Tsukiyama* gardens are, in fact, creation of illusions of deep mountains and high peaks in miniature in the garden. *Nosuji* plains are normally created with gentle sloping fields when the gardens are near the residences. These fields are called *nosuji* plains. *Karesansui* gardens are the gardens with ‘water scenes without actual water’ as is found in Saihoji Temple Garden and the Ryoanji Temple Garden. This garden was popular in places where there was scarcity of water. This is combination of rocks with the natural scenery in the way which imitates waterfalls, streams, ponds, mountain paths, bridges, and sands as water. When the whole garden is not viewable from one point but can be viewed by making a round along the garden paths, some kind of cottages or summerhouses should be there equipped with waiting benches or stools, a rest house and the tea ceremony room. Buddhist garden structures are, in fact, the houses converted into the temples with provision of tea ceremony room or the temples having pavilions, in the process for creation of Buddhist paradise on earth. Pagodas are stone towers in the Japanese gardens with two, three, five or more separately roofed stages (multi-storeyed tower) slightly tapering towards the top. Though this structure is found in the Japanese gardens in the form of Buddhist pagoda but has a decorative rather than a religious purpose.

Check Your Progress Exercise 2

Note : a) Space is given below for answers.

b) Compare your answer with that given at the end of the unit.

1) Out of all the styles, name six formal garden styles and three informal ones.

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2) What is difference between Persian gardens and Mughal gardens ?

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2.3 LET US SUM UP

In this unit we have studied the types and styles of garden designs existing world over. The formal gardens are laid normally on even land while informal ones on the uneven land, especially on the hilly terrains. The Chinese and Persian gardens evolved quite early, the earliest one being the Chinese, and others developed afterwards one by one but with the invaders as wherever they moved they created the gardens there dismantling the existing ones. So when Persia was invaded, the idea of Persian style of gardens moved to other parts of the globe with the invaders that is why most of the countries are having influences of Persian garden styles, and all these gardens are of formal type. Chinese gardens are 3,000 years old but Japanese only some 1,200 years old as Japanese style is also a borrowed one from the Chinese style but with certain own characteristics. Chinese style also influenced the English style some 700 years ago. That is why all these three gardens, viz., Chinese, Japanese and English gardens are of informal types. Garden is a place where one can enjoy the beauty of nature, can contemplate, can meditate in a quiet and secluded place, can breathe the fresh air and can attain tranquility.

2.4 KEY WORDS

American, Arabian, asymmetrical, Chinese, Egyptian, English, French, Garden, German, Italian, Japanese, Moorish, Mughal, Persian, Portuguese, Spanish, symmetrical, wild.

2.5 FURTHER REFERENCES

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2.6 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

- 1) Formal gardens are designed in exact symmetrical (rectangular or square) shapes where little space is also valuable. In this garden, everywhere geometrical design is followed and almost everything runs in to straight lines – walls, hedges, edging, beds and so on. The axis divides it into two equal parts, and whatever features are created to one side, the replica of the same is created to the other side. Its creation is easy but maintenance part is labour-intensive.
- 2) Wild gardens were expounded in the last decade of 19th century by William Robinson. His idea for wild garden was to grow native species in natural associations of wild plants so that it may more closely imitate the nature but to check the rampant growth of the plants some maintenance is required so that it may not turn messy.

Check Your Progress Exercise 2

- 1) The examples of three informal styles of gardens are Chinese gardens, English gardens and Japanese gardens whereas six formal styles of gardens are Persian, Egyptian, Mughal, Spanish, French and Italian gardens.
- 2) The difference between Persian gardens and Mughal gardens are ‘baradari’, ‘boundary wall’, ‘gate’ and ‘tomb’ which are found only in Mughal gardens and not in the Persian gardens.