

## The Gardens of India\*

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India is one of the few nations to have had a continuous civilization from about 3000 B.C. It is interesting to know that the Indians were aware of the nation's cultural heritage. This had an important impact on successive developments. Information available about the earlier period is very limited and often one has to guess the type of development that might have existed.

The earliest information we have is from the Harappa Civilization, i.e. around 2500-2000 B.C. Trees were considered important and to protect them they were given religious values. Even at this early period, there were trade and cultural contacts with Central Asia.

Around 1200 to 1000 B.C., India had a developed art of town planning. Irrigation systems were also developed and were in use. Some information is available about parks and gardens. However, it was not till the time of Lord Buddha, (563 to 483 B.C.), that we have sufficient information about the development of parks and gardens. Lord Buddha was born in a park. During that period more emphasis was on woodlands and parks rather than on gardens.

From the point of view of cultural and artistic development, the Mauryan period (322 to 185 B.C.) could be considered as one of the best periods in the history of India. It is said that no

other country or city except perhaps Athens, could have surpassed this level of development. King Ashoka (270-250 B.C.) not only loved trees and parks but gave royal orders to plant trees and develop gardens all over his kingdom. As they were Rock Edicts, these instructions are still available to us. Instructions were given regarding the location and composition of parks. Each park was expected to have water pools, creeper arbours and shaded walks. The design was more informal than formal, the emphasis was on shade and the cooling effects of water; and trees, shrubs and creepers were given preference for their fragrance, and their fruits, etc.

Another example of the same period is also very interesting. Menander (180-160 B.C.) was the Indian-born Greek king. His capital, Sagala (present day Sialkot), had extensive parks and gardens. Many of these gardens and parks had lakes and tanks with shaded walks.

From the wall paintings, sculptures, and rock-cut temples and from Sanskrit literature, one can get a fairly accurate idea of garden development from the 1st to the 5th century A.D.

Kalidasa and other poets give us detailed information about the gardens. Kalidasa (*Malavikagnimitra* Drama) has described a machine which is similar to our present-day water sprayers.

There were water-cooled garden pavilions and bathing tanks. Gardens were watered from the main tank by well laid out water channels. The pools had fountains. The concept of a pleasure garden with use of water was fully developed and utilized. In the literature nearly thirty different types of lily pools have been described.

According to information about the Chola kings (around the 10th and 11th century A.D.) in South India their cities were well developed with well planned gardens. The great South-Indian temples, gems of Indian architecture, usually had water tanks in their compounds with gardens attached to them. Invariably, such gardens were called "Nandanvanam" (heavenly gardens). Similarly, on the western coast, some 80 kms. to the north of the present city of Ahmedabad was Anhilvad, capital of the Solanki Kings of Gujarat (961 A.D.). We not only have information about the gardens, the pools and the fountains, but also about what plants were grown at that time. But now the city lies in ruins

Al-Biruni (around 1020 A.D.) author of *Kitab-u-Hind* and the "Chronology of Ancient Nations" has given us a good description of the development of tanks and reservoirs. He says, "In this, Indians have attained a very high degree of art, so that when our people see them, they wonder at them and are unable to describe them, much less to construct anything like them".

An ambassador from the kingdom of the Pandya was stationed in Athens around 20 B.C. But it was not till the 1st century A.C. that there was any exchange of ideas between the West and India. Trade and cultural contacts which India had developed with Central Asia not only continued but devel-

oped further. Indian influence was clearly seen in Persia, Greece and Rome.

Traders from Central Asia, particularly Arab traders, were regular visitors to India, and some of them even settled down, generally in the coastal areas.

Ideas were exchanged in a friendly manner. In the early part of the 8th century there was conflict between Indian and Islamic traders. Around the 10th century A.D. Arab traders were attacked by pirates near Sind. The king of Sind did not take any action and therefore Mohamed-bin Kasim attacked and captured Sind. This can also be called the beginning of the interaction of Indian (Hindu) art and culture with that of Islamic conceptions and culture. Regarding the art of Arabs, Rawlinson makes a very important statement, which has some bearing on the development of Indo-Islamic art. He says, "The early Muslim conquerors of Hindustan were bigots but they were at the same time men of considerable taste and patrons of art and literature". Reference has been made to the short-lived splendors of the Court of Gazani during its brief period of prosperity. The Arabs had no art of their own and Islamic art is largely an adaptation to the requirements of the Mohammedan religion and of indigenous elements borrowed from the various nations which they overcame. This was the case in India".

However, the Turki invaders from the north brought with them important new ideas, the arch, the dome and minaret and combined them with the art of this country. In this they were aided by Hindu craftsmen and by the fact that in many cases they either refashioned existing Hindu temples or used them as quarries for new buildings. Indo-Islamic architecture, then, is a fusion of Central

Asian and Hindu concepts. Again, the rise of Islam was largely responsible for giving a new dimension to the age-old trade connection of India with Central and Western Asia. At an early period Hindu art and science had a strong influence in the Arab kingdoms, particularly in Baghdad.

The chief feature of Hinduism, its power of assimilation, was also an important factor. Invaders like the Greeks, Saka, Kushan and Huna were gradually absorbed into Hindu society. But the Mohammedans with their strongly marked religious characteristics remained apart. They lived as a garrison in a hostile country, holding little or no intercourse with their subjects. They made comparisons with their homelands and tried to create a similar environment in India. While doing this they unknowingly used Indian materials and methods, thus changing the image they really wanted to create.

Information available on gardens during the earlier period of Islamic rule, that is up to the time of Babar, is rather limited. This is largely for two reasons. First, there were very few historians or chroniclers present during this period. Secondly, time has taken its toll in this tropical country and what was left, succeeding kings demolished.

For the purpose of this study, we can divide India into two regions. The Islamic kingdoms in the North mostly around Delhi, Agra, etc. and Islamic Kingdoms, popularly known as Sultanates, in the South of India. Climatically and geographically, these two regions differ from each other. The North, the plains of Indus and Ganges, is mostly flat and fertile. The climate is hot and dusty during summer and pleasantly cold during winter. In the South however, the land is mostly hilly, the soil is

poor, and the climate generally warm throughout the year, but not reaching the extremes.

Four different Islamic dynasties ruled Delhi before Babar came to the throne. A Turkish slave Mohammed Ghory established his kingdom at Delhi, inaugurating the Slave Dynasty, (in 1206 A.D.). Kutb-din Ibak (1210 A.D.) made an important contribution to architecture during his time. Very little information about gardens is available. We have some information about the gardens and garden pavilions built during the reign of queen Razia Begam (1236 A.D.). However, her rule was short lived.

Perhaps, the king best known for his love of gardens before Babar would be King Firoz Shah (1351 A. D.) Contemporary historians have left a good record of his work. Sultan Firoz developed more than 1200 gardens in and around Delhi. True, the gardens may have been mainly fruit orchards, but recreation was no small part of it. More use was made of running water in the gardens. He developed forty-four gardens near Chittor and eighty gardens near Salaura. He was responsible for completing about 30 gardens which were started by Ala-ud-din (1296 A.D.). Most of the gardens had irrigation channels, and some had fountains also. Sultan Firoz Shah was a great builder. It is recorded that he established nearly 200 towns in addition to a new capital called Firozabad. He also constructed thirty reservoirs and fifty dams. Another important engineering feat of his time was that of transporting two monolithic pillars of the Emperor Ashok and erecting them in Delhi. This in itself deserves credit.

After the fall of the Tughlak dynasty, by 1300 A.D., two important events

took place in the country: the end of Delhi as a seat of political power in the country and secondly and of interest to us, the rise of independent Islamic kingdoms in other parts of the country. The Lodhi dynasty which ruled from 1450 to 1526 A.D. contributed greatly to architecture and to the art of gardens in India. It was Sikandar Lodhi who shifted his capital to Sidandra near Agra. The place is now famous for Akbar's tomb. Lodhi tombs in Delhi and other structures of this period speak of development achieved during this time.

As has been said earlier, after the fall of the Tughlak dynasty, independent kingdoms were established in other parts of the country. Their contribution to the art of Islamic gardens in India is of importance to us. It might sound surprising but some of these gardens were more advanced for their time than the gardens developed by Babar in India. We will briefly deal with these gardens.

Let us consider the Malava kingdom (1297-1531 A.D.) in central India. The most interesting work of this period is the Fort Palace at Mandu. Anyone who has visited the site will be surprised by the sheer location of the fort. not to speak of its architecture. Mandu was known in the 8th to 13th century as belonging to Parmar kings. It was attacked by Ala-ud-din Khilji, Sultan of Delhi in 1305 A.D. But it was not till 1401 A.D. that it became the Islamic capital under king Dilawar Khan. The present city of Mandu was built by Hoshang 1405-1432 A.D.

It was to King Baz-Bahadur, 1555 to 1562 A.D., that the honours must go for the development of the art of gardening. The Reva Garden was square in shape with a great tank or pool in the centre. The garden was set with trees and flowers. In the centre of the garden

was a pleasure house. Now only a few traces of the original gardens remain. In the palace, there were fountains and tanks with coloured glass. Water used to flow over the coloured glass tiles which were lighted.

The gardens of this period were enriched by introducing plants from other nations. As has been said earlier, there were trade contacts with Central Asia. The traders used to visit various places and bring back interesting goods as presents or for trade. We have evidence that during the reign of Mahamud Khilaji, 1436-1469 A.D., Adanon Sonia Digitata, a plant of the East coast of Africa, was introduced at Mandu.

Another important kingdom was the Baihmani kingdom (1347 to 1482 A.D) in the south of India, which ultimately broke up to form several small Sultanates. Important from our point of view are the City of Sultan Feroz Shah Bahmuny (1397 to 1422 A.D.) and the Sultanate of Bidar (1490 to 1574 A.D.) Feroz Shah Bahmuny built a town called Ferozabad on the banks of the river Bhima in the Deccan. The palace was provided with water from a canal which was connected to the Bhima river. The palace was divided into several courtyards. Many courtyards had gardens with water running through channels. Similarly the Tomb of Quasim Barid who died in 1504 had a well laid out garden with paved paths etc. The same is true of the Tomb of Ali Barid who died in 1580 A.D.

Coming to the gardens of Bidar, we have some interesting information. The "Ranga Mahall" (literally: Ranga= colour, Mahall=pavilion, but it was actually a hall for recreation) had a courtyard. This courtyard was developed as a garden with a cistern. The cistern's dimensions are: 2.90 m. long, 2.08 m.

wide, 0.76 m. deep.

The royal pavilion in the same palace also had a fountain made of dark horblende, octagonal in shape, with cusps at the margin. The basin is 75 cms across. Some traces do remain of intricate water channels. The kings were very fond of water, and running water in particular. Then there is a Lalbagh or Ruby (red) garden, so called because of red flowers which may have been grown in the garden. This garden is rectangular in shape, 125 meters by 64 meters. The pavilion which is in the centre has water channels beside it. A cistern of elegant design, built in the middle of a platform is 1.2 m. high and 12m. square. The cistern itself is only, 1.02 m. deep having a fourteen-sided oval shape, with a black stone margin. A narrow channel only 86 cms. wide, runs and joins another cistern 18 ms. by 2.5 ms. with fountains. Two small water cascades are also provided. The water for the garden was lifted from wells. Then there is the Tarkash Mahall, with a garden and cistern.

These gardens were further modified by the Mughal governors.

There is a reference to the Farh-bagh garden being laid out by Mukhtar, Mughal Governor of Bidar in 1671'

We will consider only two more examples before coming to the Mughal contribution.

First, Mahmud Peghadra, King of Gujarat (from 1459 to 1511 A.D.) built an excellent palace in a lake at Sarkhej near Ahmedabad. No details of the gardens are easily available but contemporary works give us some information on the garden at that time. The second example is also of the 15th century: Champaner, near Baroda, the Islamic Capital of Gujarat; whatever little information is available goes to prove

that is was a real garden city.

Perhaps it may be out of place, but is of interest to mention, that the predominantly Hindu Kingdom of Vijayanagar (1336-1565 A.D.) had well laid out gardens. This has been reported by Domingo Peos, a Portuguese merchant, in 1522 A. D.

We will now consider the final phase of the Islamic garden in India. The work of this period is best known as it is not only fairly well preserved as monuments, but is well documented in histories, biographies and miniature paintings. Unfortunately, similar information is not available for earlier gardens. Moreover, there was continuity and stability during the Mughal period. It is generally believed that Babar introduced Islamic gardens, prior to Babar's arrival. One will find this hard to believe. It is clear that there was a free exchange of ideas between India and Central Asian countries and also between various Islamic rulers. Many Indian artisans and craftsman were working in faraway places such as Baghdad and Gazani. The concept of "Bostan" (fruit orchard) and the "Gulistan" (flower garden) was an Islamic concept. This being the case, it will be somewhat impractical to give all the credit to Babar. As has been said earlier, information about the Mughal period is readily available, and this may lead one to believe that no other gardens existed earlier. However, all said and done, Babar did give a very solid impetus to garden development in India. Babar was a shrewd observer and a very ambitious person. He tried to make the best of every situation. His observations of Indian plant life are remarkable in this respect. Babar laid out and improved many gardens around Kabul. Important among these gardens is the



Bagh-i-Vifa (Garden of fidelity) which he developed with great care, planting trees and plants brought from India. In his memoirs he refers to this garden several times.

When Babar came to Agra, he immediately started his first garden, Char-Bagh. It is interesting to note his efforts in establishing this garden:

“Shortly after coming to Agra, I passed the Jumuna with this object in view, and examined the country, to pitch upon a fit spot for a garden. The whole was so ugly and detestable, that I repassed the river quite repulsed and disgusted. In consequence of the want of beauty and the disagreeable aspect of the country, I gave up my intention of making a Char-Bagh; but as no better situation presented itself near Agra, I was finally compelled to make the best of this same spot. First of all I began to sink the large well which supplies the baths with water; I next fell to work on the piece of ground on which are the añbli (Tamarindus Indica), and the octagonal tank; I then proceeded to form the large tank and its enclosure; and afterwards the tank and lalar. I next finished the garden of the private apartments, and the apartments themselves, after which I completed the baths. In this way, going on, without neatness and without order, in the Hindu fashion, I, however, produced edifices and gardens which possessed considerable regularity. In every corner I planted suitable gardens; in every garden I planted roses and narcissus regularly, and in beds corresponding to each other”.

The gardens developed by Bahar were usually constructed in a series of terraces of sloping ground, which was the usual Turki and Persian plan. The religious concept of Paradise was pre-

dominant in garden planning. Paradise had eight divisions and based on this concept the gardens were divided into eight terraces. However, in some places, the number seven was also chosen to represent the seven planets.

In these terraced pleasure gardens the main pavilion, the climax of the design, was in nearly every case placed either on the topmost terrace from which one could get a wide view, or else on the lowest terrace from where one could enjoy the garden with its background. This system has been commonly used in Kashmir.

But it was not always possible to have a site where terraces were possible. This led to the development of gardens on flat ground. In such gardens the main structure was raised sufficiently high so as to achieve an imposing effect. Secondly, were eight terraces or seven terraces and if it were not possible two water channels were designed to form a cosmic cross.

Islamic gardens could be divided into three types:

- a. gardens developed around a mausoleum,
- b. gardens developed as pleasure gardens,
- c. courtyard gardens.

The simple plan which was followed in the plains could have been influenced by Hindu mythology. The Hindus considered Mount Meru as the centre of the world, while from the four cardinal points holy springs the life giving springs used to flow. On the central mount stood the tree of knowledge and a temple. In the Islamic concept, which had a strong ideology of a Paradise, the mausoleum replaced the temple.

The gardens in the plains, and particularly around the mausoleum, follow

a very simple plan. Where possible, the king used to develop the garden himself, and after his death a mausoleum used to be built in the garden.

Among mausoleum gardens we have:

1. Humayun's Tomb, Delhi, (1556 A.D.),
2. Akbar's Tomb, Sikandra near Agra, (1605 A.D.)
3. Jahangir's Tomb, Shahadra, Lahore, (1627 A.D.)
4. The Taj Mahal, Agra, (1658 A.D.)
5. Mausoleum for Rabi a Darauni.

Among pleasure gardens, the important gardens are the Nasim Bagh by Akbar. Shalimar Achabal, Vernag and Nishat, built during the time of Jahangir. Then during Shahjahan's time, we have the Chasma Shahi in Kashmir, Shalimar at Delhi and also at Lahore and the gardens of the Red Fort at Delhi. The Pinjore Gardens near present-day Chandigarh are perhaps the only important gardens of Aurangzeb's period.

Among court-yard gardens, we have the Anguri bagh, Agra fort, the Garden of the Amber Fort and Udaipur Lake Palace.

The garden around Humayun's tomb is perhaps the oldest garden of the Mughal period to have preserved most of its original design. It is here we find that water was passed over small chutes with designs giving different patterns.

Up to the time of Akbar, the water channels were somewhat narrow, with broad pavements adjoining them. Water falls, or water sheets, and fountains were not fully developed. But it was for Jahangir to utilize water fully as had been done in the gardens of Kashmir.

The water was taken through narrow or wide channels according to the design. The channels were generally shallow and were filled up to the brim. From the main channels, small chan-

nels were developed to water the garden. At suitable places, small tanks were constructed from which the water was distributed. These tanks or basins were carved in various shapes. Water falls and water chutes were developed. Water rushing over the carved chute was either thrown up in ripples or broken pearls or formed a sheet of water. There were water jets of various types.

Perhaps the most famous of terraced gardens will be the Nishat Bagh in Kashmir, built by Jehangir. It has twelve terraces, rising higher and higher and reaching the mountain. The stream tears down these terraces in cascades enlivening each terrace by its movement. An important feature of the Nishat Bagh is the stone and marble thrones. Generally one such throne is placed at the head of every water fall. The Nishat Bagh also has a tower at either end, surveying the whole landscape. But to some the Shalimar, or Royal Gardens, are more interesting. They are truly called Paradise in Paradise. The most important feature is the black marble pavilion, surrounded by jets of water; this pavilion in the Ladies' garden is the climax of the whole design, and is the best example of a Mughal "Baradari" open on all sides.

Among court-yard gardens the Anguri Bagh is the finest example. This gem of a garden lies in the Khas Mahall royal quarters, with ladies' quarters on three sides. The garden is divided into four squares, which are laid out in beautiful geometrical shapes. In the centre there is a raised platform with a small tank and fountain. This is perhaps the most intimate garden.

Although the Hindu influence on Islamic architecture has always been strong, it was perhaps most prominent during Akbar's times. The Anguri Bagh

at Agra, the Amber garden at Jaipur and the Lake Palace garden at Udaipur are classical examples of this influence. Another product of this influence was development of moon-light gardens as against sun-lit Islamic gardens.

Information is available about the plants used in Islamic gardens. Ground-cover which was "clover" in Bahar's garden, was not used in Indian gardens. Fruit trees like citrus spp. pomegranate, were commonly planted. Among shrubs narium spp., jasminum spp., roses, hibiscus spp., were very common. Among seasonal plants., hollyhocks, carnations, narcissus, polyanthus and marigolds were common.

The subject of Islamic gardens in India is in itself a wide one, covering nearly 1500 years and two different religions. In this short paper, efforts have been made to put forward the salient points, rather than a detailed description.

Our present concern is two-fold: first to preserve what we have and, secondly, to restore or reconstruct wherever possible. It is needless to say, as every one will agree, that efforts must be made to protect and preserve whatever little has been left. After the fall of the Mughal Empire and also during the British period, these monuments suffered a lot. If one goes through the reports of Archaeological Survey, one will be shocked to read of old monuments used as Military barracks, schools, railway stations, Government offices and what not. Three examples of this misuse would be sufficient to illustrate the point: the Red Fort of Delhi, part of which is still used as a military garrison: a machine tool factory has been established right in front of Pinjore Garden, completely destroying the view. Elsewhere a modern

swimming pool has been built in the middle of an old Mughal garden. There are many other examples like this, some small, others big, but each example has its own impact. Even the Nishat and Shalimar gardens in Kahsmir have not escaped from this destruction. The gardens themselves have suffered. During reconstruction work, proper thought was not given to them. In some places, even the existence of a garden was ignored or forgotten. Fathepur Sikri, Akbar's capital, is one such example. British gardeners also modified the plans of gardens and introduced new plants. This must have been done in enthusiasm and unknowingly.

The problem is enormous, but a solution has to be found. the following are some of the suggestions for tackling the problems:

- complete survey of the existing gardens and probable garden sites.
- detailed study of each garden in terms of design elements such as pavilions, water channels, paving, fountains, etc.; study of the evolution of various forms.
- study of plant material so as to establish a list of suitable plants which could be used in each garden.
- giving suitable training to Landscape Architects in Archaeology, and to Archaeologists in Landscape design, so that the process of conservation and restoration can be safely carried out.

For the purposes of this paper, geographical and political boundaries are assumed, to be those of the 18th century i.e. during the Mughal period.

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