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INDIAN ARCHITECTURE

At times it becomes very important to be reminded that we are that civilization which has spanned atleast 4,500 years and which has left its impact on nearly everything in our lives and society. Imagine UNESCO has listed 830 World Heritage Sites, out of which 26 are in India. This is less than six other countries. Is this not a tangible proof of the creative genius and industry of this ancient land, people, and also of the gifts bestowed on it by nature. Be it the Bhimbetka's pre historic rock art at one end or the innumerable palaces, mosques, temples, gurudwaras, churches or tombs and sprawling cities and solemn stupas.

Going through the cities of Delhi, Agra, Jaipur, Mumbai and Calcutta etc. you find many beautiful buildings. Some are monuments, palaces, temples, churches, mosques and memorials. Many of them had their foundation before Christ and many after the coming of Christ. Many generations have been a part of this architecture which stands mighty and lofty reminding us of that glorious past which has been ours. This is because art and architecture forms an important part of Indian culture. Many distinctive features that we find in the architecture today developed throughout the long period of Indian history. The earliest and most remarkable evidence of Indian architecture is found in the cities of the Harappan Civilization which boast of a unique town planning. In the post Harappan period architectural styles have been classified as Hindu, Buddhist and Jain, The medieval period saw the synthesis of Persian and indigenous styles of architecture. Thereafter the colonial period brought the influence of Western architectural forms to India. Thus Indian architecture is a synthesis of indigenous styles and external influences which has lent it a unique characteristic of its own.



OBJECTIVES

After reading this lesson you will be able to:

- identify the main characteristics and various styles of Indian architecture and sculpture at different times;
- trace the evolution of Indian architecture over the years;
- recognise the contribution of Buddhism and Jainism to the development of Indian architecture;
- appreciate the role played by Gupta, Pallava and Chola rulers in the flourishing temple architecture of India;
- identify the different influences that marked the architectural impressions of the medieval period; and
- point out the important architectural style under the colonial regime.

13.1 ARCHITECTURE-ORIGINS AND INDIAN PERSPECTIVE

Architecture is not a modern phenomenon. It began as soon as the early cave man began to build his own shelter to live in. Man first began to create and fix his own shelter when he stepped out from the natural habitat of dense jungle covers. With the artistic faculties of man awakened in the search for larger and better-sheltered spaces, he began to build, with inherent aesthetic sense, shelters that seemed pleasing to the eye. Thus emerged architecture which is a combination of needs, imagination, capacities of the builders and capabilities of the workers.

Architectural Forms and Construction Details: Architecture accommodated the local and regional cultural traditions and social requirements, economic prosperity, religious practice of different times. Hence, the study of architecture reveals to us the cultural diversities and helps us understand the rich traditions of India.

Indian Architecture evolved in various ages in different parts and regions of the country. Apart from these natural and obvious evolutions from the pre-historic and historic periods, evolution of Indian architecture was generally affected by many great and important historic developments. Naturally, the emergence and decay of great empires and dynasties in the sub-continent, each in their way influenced the growth and shaped the evolution of Indian architecture. External influences have also shaped the nature of Indian architecture and so has the influence of different regions of the country. Let us have a look at the process of evolution of Indian Architecture.



13.2 HARAPPAN PERIOD

The excavations at Harappa and Mohenjodaro and several other sites of the Indus Valley Civilisation revealed the existence of a very modern urban civilisation with expert town planning and engineering skills. The very advanced drainage system along with well planned roads and houses show that a sophisticated and highly evolved culture existed in India before the coming of the Aryans. The sites of the Indus Valley Civilization were excavated under the Archaeological Survey of India established by the British.

The Harappan people had constructed mainly three types of buildings-dwelling houses pillared halls and public baths.

Main features of **Harappan remains** are:

1. The settlements could be traced as far back as third millennium BC.
2. Some important settlements were excavated on the banks of the river Indus particularly at the bends that provided water, easy means of transportation of produce and other goods and also some protection by way of natural barriers of the river .
3. All the sites consisted of walled cities which provided security to the people.
4. The cities had a rectangular grid pattern of layout with roads that cut each other at right angles.
5. The Indus Valley people used standardised burnt mud-bricks as building material.
6. There is evidence of building of big dimensions which perhaps were public buildings, administrative or business centres, pillared halls and courtyards, There is no evidence of temples.
7. Public buildings include granaries which were used to store grains which give an idea of an organised collection and distribution system.
8. Along with large public buildings, there is evidence of small one roomed constructions that appear to be working peoples quarters.
9. The Harappan people were great engineers as is evident from the public bath that was discovered at Mohenjodaro. The ‘Great Bath’ as it is called, is still functional and there is no leakage or cracks in the construction. The existence of what appears to be a public bathing place shows the importance of ritualistic bathing and cleanliness in this culture. It is significant that most of the houses had private wells and bathrooms.
10. At some sites a dominant citadal was excavated in the western part containing the public buildings including the granaries. This can perhaps be treated as evidence of some kind of political authority ruling over the cities.
11. There is evidence also of fortifications with gateways enclosing the walled cities which shows that there may have been a fear of being attacked.



12. Lothal, a site in Gujarat also has the remains of a dockyard proving that trade flourished in those times by sea.

Another remarkable feature was the existence of a well planned drainage system in the residential parts of the city. Small drains from the houses were connected to larger ones along the sides of the main roads. The drains were covered and loose covers were provided for the purpose of cleaning them. The planning of the residential houses were also meticulous. Evidence of stairs shows houses were often double storied. Doors were in the side lanes to prevent dust from entering the houses.

The most important features of Harrapan architecture are their superior town planning skills and cities that have been built on a clear geometric pattern or grid layout. Roads cut each other at right angles and were very well laid out. As the Indus Valley settlements were located on the banks of the river, they were often destroyed by major floods. In spite of this calamity, the Indus Valley people built fresh settlements on the same sites. Thus, layers upon layers of settlements and buildings were found during the excavations. The decline and final destruction of the Indus Valley Civilization, sometime around the second millennium BC remains a mystery to this day.

Many thick layers of well baked bricks laid in gypsum mortar were joined together for the purpose of making the whole construction very strong. The strength of the buildings can be seen by the fact that they have successfully survived the ravages of atleast five thousand years.

The Harappans had the knowledge and skill of sculpting and craft. The world's first bronze sculpture of a dancing girl has been found in Mohenjodaro. A terracotta figure of a male in a yogic posture has also been excavated. Beautiful personal ornaments, soft stone seals with a pictorial script and images of humped bulls, Pashupati unicorn have also been excavated.

The Vedic Aryans who came next, lived in houses built of wood, bamboo and reeds; the Aryan culture was largely a rural one and thus one finds few examples of grand buildings. This was because Aryans used perishable material like wood for the construction of royal palaces which have been completely destroyed over time. The most important feature of the Vedic period was the making of fire altars which soon became an important and integral part of the social and religious life of the people even today. In many Hindu homes and especially in their marriages, these fire altars play an important role even today. Soon courtyard and mandaps were build with altars for worship of fire which was the most important feature of architecture. We also find references of Gurukuls and Hermitages. Unfortunately no structure of the Vedic period remains to be seen. Their contribution to the architectural history is the use of wood along with brick and stone for building their houses.

In the 6th century B.C. India entered a significant phase of her history. There arose two new religions - Jainism and Buddhism and even the Vedic religion underwent a change.



Almost simultaneously larger states sprang up which further provided for a new type of architecture. From this period i.e. the expansion of Magadha into an empire, the development of architecture received further impetus. From now it was possible to trace Indian architecture in an almost unbroken sequence.

Emergence of Buddhism and Jainism helped in the development of early architectural style. The Buddhist Stupas were built at places where Buddha's remains were preserved and at the major sites where important events in Buddha's life took place. Stupas were built of huge mounds of mud, enclosed in carefully burnt small standard bricks. One was built at his birthplace Lumbini; the second at Gaya where he attained enlightenment under the Bodhi Tree, the third at Sarnath where he gave his first sermon and the fourth at Kushinagar where he passed away attaining *Mahaparinirvana* at the age of eighty.

Buddha's burial mounds and places of major events in his life became important landmarks of the significant architectural buildings in the country. These became important sites for Buddha's order of monks and nuns - the sangha. Monasteries (viharas), and centres of preaching, teaching and learning came up at such places. Congregational halls (chaitya) for teaching and interaction between the common people and the monks were also built up.

From now on religion began to influence architecture. While Buddhists and Jains began to build stupas, Viharas and Chaityas, the first temple building activity started during the Gupta rule.

**INTEXT QUESTIONS 13.1**

1. What do you mean by the evolution of Indian culture?

2. How did Harappan's protect their civilization?

3. How were the engineering skills of Harappan people evident?

4. Where was the remains of Buddha buried?

5. Where were the Buddha's statues found?

6. When was the first temple built in India?



7. What do you mean by Stupas, Viharas and Chaityas?

8. Where was a dockyard excavated?

13.3 EARLY HISTORIC PERIOD

An important phase of Indian architecture began with the Mauryan period. The material prosperity of the Mauryans and a new religious consciousness led to achievements in all fields. Megasthenes, the Greek ambassador of Selucas Nikator who visited the Mauryan court described Chandragupta Maurya’s palace as an excellent architectural achievement. It was a large palace carved out of wood.

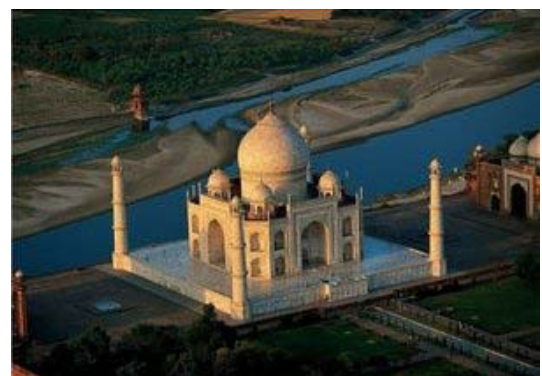


Buddhist Monuments at Sanchi

In the Mauryan period (322-182 BC) especially under Ashoka architecture saw a great advancement. Mauryan art and architecture depicted the influence of Persians and Greeks. During the reign of Ashoka many monolithic stone pillars were erected on which teachings of ‘Dhamma’ were inscribed. The highly polished pillars with animal figures adorning the top (capitals) are unique and remarkable. The lion capital of the Sarnath pillar has been accepted as the emblem

of the Indian Republic. Each pillar weighs about 50 tonnes and is about 50 ft high.

The stupas of Sanchi and Sarnath are symbols of the achievement of Mauryan architecture. The gateways of the Sanchi Stupa with the beautiful sculpture depicting scenes from Jataka stories are specimens of the skill and aesthetic sense of the artisans.



The blending of Greek and Indian art led to the development of Gandhara art which developed later. The other schools of art and architecture were the indigenous Mathura school and Amaravati school. A large number of statues of the Buddha were built by the artisans of these schools specially after first century AD under the influence of the Kushanas. Under the Gandhara school of art life-like statues of Buddha and Bodhisattavas

were made in the likeness of Greek gods even, though the ideas, inspirations and subjects were all Indian. Rich ornaments, costumes drapery were used to impart physical beauty. The sculptures were in stone, terracotta, cement like material and clay.

The figures of the Mathura school were made of spotted red stone. They had more of spiritual look in them. Here along with Buddha we find sculptures of Jaina deities also.

The Amaravati school developed under the patronage of the Satavahanas of the Andhra region. A great stupa was built at Amaravati in the Lower Godavari region. The walls of the stupa are adorned with bas relief, had carved medallion and decorative panels. Nagarjunkonda is another place that is famous for Buddhist architecture.

The Gupta period marks the beginning of the construction of free-standing Hindu temples. An example of this is the temple at Deogarh (Jhansi district) which had a central shrine or garbhagriha where the image of the deity was placed. Another temple at Bhitrigaon (Kanpur district) are two fine examples of this period..

Cave architecture

The development of cave architecture is another unique feature and marks an important phase in the history of Indian architecture. More than thousand caves have been excavated between second century BC and tenth century AD. Famous among these were Ajanta and Ellora caves of Maharashtra, and Udaygiri cave of Orissa. These caves hold Buddhist viharas, chaityas as well as mandapas and pillared temples of Hindu gods and goddesses.

Rock-cut temples

Temples were hewn out of huge rocks. The earliest rock-cut temples were excavated in western Deccan in the early years of the Christian era. The chaitya at Karle with fine high halls and polished decorative wall is a remarkable example of rock-cut architecture. The



Group of Monuments at Mahabalipuram





Kailash temple at Ellora built by the Rashtrakutas and the ratha temples of Mahabalipuram built by the Pallavas are other examples of rock-cut temples.

Most probably the stability and permanence of rocks attracted the patrons of art and builders who decorated these temples with beautiful sculptures.

Free-standing temples

The temple building activities that began during the Gupta rule continued to flourish in later periods. In southern India the Pallavas, Cholas, Pandyas, Hoyshalas and later the rulers of the Vijaynagar kingdom were great builders of temples. The Pallava rulers built the shore temple at Mahabalipuram. Pallavas also built other structural temples like Kailashnath temple and Vaikuntha Perumal temples at Kanchipuram. The Cholas built many temples most famous being the Brihadeshwara temple at Tanjore. The Cholas developed a typical style of temple architecture of South India called the Dravida style, complete with *vimana* or *shikhara*, high walls and the gateway topped by *gopuram*. Magnificent temples were built at Belur, Halebid where the stone engravings reached even greater heights.

In north and eastern India magnificent temples were also constructed and the style followed by them is referred to as the Nagara style. Most of them consisted of the *shikaras* (spiral roofs), the *garbhagriha* (sanctum) and the *mandap* (pillared hall).

Orissa has some of the most beautiful temples such as the Lingaraja temple built by the Ganga rulers and the Mukteshwara temple at Bhubaneshwar and the Jagannath temple at Puri.

The sun temple at Konark was built in thirteenth century by the eastern Ganga ruler Narshimha Deva I. The temple is dedicated to Surya (the sun god) and has been designed as a twelve-wheeled chariot.

The temple complex at Khajuraho was built by Chandella rulers between the tenth and eleventh centuries in the Bundelkhand region of Madhya Pradesh. Most important among them is the Kandariya Mahadev temple.

Mount Abu in Rajasthan is known for the Dilwara temple dedicated to Jain *tirthankaras*. These were built in pure white marble and adorned with exquisite sculpture. These were built under the patronage of Solanki rulers.



Kandariya Mahadev Temple

Khajuraho Temples

Somnath temple at Gujarat, Vishwanath temple at Banaras, Govinda temple at Mathura, Kamakhya temple at Guwahati, Shankaracharya temple at Kashmir and the Kali temple at Kalighat of Kolkata are some other important temples which bear testimony to temple building activity of the Indian sub continent.

**INTEXT QUESTIONS 13.2****Notes**

1. How did Megasthenes describe the palace of Chandra Gupta Maurya?

2. Name the two stupas that shows the achievement of Mauryan architecture?

3. Where were the teachings of Dhamma inscribed in Ashoka reign?

4. Name the few schools of architecture of early historic period?

5. Where are Udaygiri caves?

6. Who built the Kailash temple of Ellora?

7. Who built the Ratha temples at Mahabalipuram?

8. What is Dravida style of architecture?

9. Name the temple built by Chola king at Tanjore?

10. Define Nagara style of architecture?

11. Who built the Sun temple at Konark?

12. Name the famous Jain temple at Mount Abu. Rajasthan.



Notes

13.4 MEDIEVAL PERIOD ARCHITECTURE

Delhi Sultanate

With the arrival of Turks during the thirteenth century came a new technique of architecture- the architectural styles of Persia, Arabia and Central Asia. The engineering features of these buildings were the domes, arches and minarets. The palaces, mosques and tombs built by the rulers had these features which were blended with the features of the indigenous architecture and a new synthesis in architecture was achieved. This happened because the Turkish rulers of Delhi utilized the services of the local Indian craftsmen who were very skillful and had already constructed beautiful buildings. In the buildings that came up we find the simplicity of the Islamic structure as well as the detailed sculptures and designs they made on their own indigenous structures. A middle path was followed in all their designs in the architecture of this period.



The earliest building of this period is Quwwatul Islam Mosque at Delhi and the Qutub Minar. The latter is a tower, whose height is 70 metres. It is a tapering tower that has five stories. There are beautiful engravings of calligraphy both in the mosque and on the tower. Many other buildings were later constructed by the Sultans. Ala-ud-din Khalji enlarged the Quwat-ul-Islam mosque and built a gateway to the enclosure of the mosque. This gateway is called the Alahi Darwaja and is one of the most beautiful architectural designs even today. Decorative elements were used to make the building outstanding in its beauty. He also built the Hauz Khas in Delhi which was a hydraulic structure. The tomb of Mohammad Tughlaq, Firoz Tughlaq and the forts of Tughlaqabad are some examples. Though their buildings were not beautiful but had very strong walls, massive as well as impressive. During the Afghan rule the tombs of Ibrahim Lodi at Delhi and Shershah's tomb at Sasaram were built. The architecture of this period also shows how indigenous styles were adopted and utilised by the builders. During these years, the Turks were still in the process of settling down. The rulers were threatened by the Mongols, who made sudden invasions from the north. This is why the buildings of this period are strong, sturdy and practical.

Regional Kingdoms

With the establishment of regional kingdoms in Bengal, Gujarat and the Deccan, beautiful buildings having their own style were constructed. The Jama Masjid, the Sadi Saiyyad Mosque and the shaking towers at Ahmadabad are a few examples of this architecture. In



Mandu (central India) the Jama Masjid, Hindola Mahal and Jahaz Mahal were built. In the Deccan, the Sultans erected a number of buildings. The Jama Masjid at Gulbarga, the *Madarsa* of Mahmud Gawan at Bidar, Ibrahim Rauza, Gol Gumbaz at Bijapur and the fort at Golkunda are just a few famous buildings. Gol Gumbaz has the largest dome in the world. All these buildings vary in design and style from the buildings of north India. In Bengal the oblong shape of many structures and the peculiar style of roof construction were some of the distinctive features of the regional architecture of Bengal like the Adina mosque and the tomb of Jallal-ud-din at Pandua, Khil Darwaza and Tantipara mosque at Gaur. In Jaunpur, the Atala mosque built by the Sharqui rulers had a gigantic screen covering the dome while the tomb of Hoshang Shah at Malwa is made entirely of marble and is made of yellow and black marble inlay work beautifully done by craftsmen. The rulers of Vijayanagar, an empire which was established during this period also erected many beautiful buildings and temples and had a number of achievements to their credit. Though only ruins remain but the temples of Vithalswami and Hazar Rama at Hampi are good examples.

BAHAMANI

The Bahamani sultans borrowed from the styles of Persia, Syria, Turkey and the temples of Southern India. The Jama Masjid at Gulbarga is quite well known. The courtyard of this mosque is covered with a large number of domes and is the only mosque in India which has a covered courtyard.

Mughals

The advent of the Mughals brought a new era in architecture. The synthesis of style which began earlier reached its zenith during this time. The architecture of Mughal style started during Akbar's rule. The first building of this rule was Humayun's Tomb at Delhi. In this magnificent building red stone was used. It has a main gateway and the tomb is placed in the midst of a garden. Many consider it a precursor of



the Taj Mahal. Akbar built forts at Agra and Fatehpur Sikri. The Bulund Darwaza reflects the grandeur of the mighty Mughal empire. This building was made following Akbar's victory over Gujarat. The Arch of the Buland Darwaja is about 41 m high and is perhaps the most imposing gateway in the world. The tomb of Salim Chishti, Palace of Jodha Bai, Ibadat Khana, Birbal's House and other buildings at Fatehpur Sikri reflect a synthesis of Persian and Indian elements. During the reign of Jehangir, Akbar's Mausoleum was constructed at Sikandra near Agra. He built the beautiful tomb of Itimad-ud-daula which was built entirely of marble. Shahjahan was the greatest builder amongst the Mughals. He



used marble extensively. Decorative design in inlay work, (*called pietra duro*) beautiful arches and minarets were the features of his buildings. The Red Fort and Jama Masjid of Delhi and above all the Taj Mahal are some of the buildings built by Shahjahan. The Taj Mahal, the tomb of Shahjahan's wife, is built in marble and reflects all the architectural features that were developed during the Mughal period. It has a central dome, four elegant minarets, gateway, inlay work and gardens surrounding the main building. The Mughal style of architecture had a profound influence on the buildings of the later period. The buildings showed a strong influence of the ancient Indian style and had courtyards and pillars. For the first time in the architecture of this style living beings- elephants, lions, peacocks and other birds were sculptured in the brackets

Next came the British who ruled the country for 200 years and left behind a legacy of colonial style architecture in their buildings.

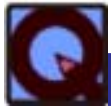
Monuments Built by Akbar at Fatehpur Sikri

The Mughal architecture began in the reign of Akbar. He erected many important buildings. The crowning achievements of his reign was the building of his new capital city of Fatehpur Sikri., 40 km from Agra. Fatehpur Sikri is a romance of stones. The Arch of the Buland Darwaja is the most imposing gateway in the world. The tomb of Saint Salim Chisti is exquisite in its beauty. Jodha Bai Palace is a fine example of ancient Indian architecture. The Jama Masjid was built with the influence of the Persian style. The Dewan-i-Amm and the Dewan-i-Khas are famous for their planning and decoration. The Ibadat Khana and Panch Mahal are another notable buildings. The Panch Mahal is a pyramidal structure in five storeys. It was built on the pattern of a Buddhist Vihara.

From 1526, the Mughal architecture gave a totally different dimension to tomb building. These are built on platforms and are surrounded by gardens laid out with ornamental fountains. A famous example is the mosque at Fatehpur Sikri - three domes of 290 ft by 470 ft and with two royal tombs.

Another famous tomb is Akbar's tomb in Sikandra (A.D. 1593-1613). The Taj Mahal, Agra (A.D. 1630) built by Shah Jehan is considered one of the 'Wonders of the World'. It is a royal tomb in marble built on a platform 18ft high and 313 ft. square. Each corner is marked by a minaret 133ft high. The central dome is 80 ft. high and 58ft in diameter. Marble is inlaid with semi-precious stones like jasper and agate. It stands by the bank of the river Jamuna in the middle of marble terraces, fountains and lakes flanked by cypress trees. Mughal architecture declined with the failing political power of the Mughal Empire.

A unique architectural development in the Mughal time was the beautiful gardens developed around the tombs and other buildings. The Shalimar Gardens in Kashmir and Lahore were developed by Jahangir and Shah Jahan respectively. The Mughals encouraged cultural and architectural growth of India.



INTEXT QUESTIONS 13.3

1. What was the style of architecture of the Turks?

2. Name some of the tombs and mosques constructed during the sultanate period?

3. Which is the largest dome in the world?

4. What is pietra dura?

5. Which building reflects the grandeur of the mighty Mughal Empire?

13.5 COLONIAL ARCHITECTURE AND THE MODERN PERIOD

The colonial influence can be seen in office buildings. Europeans who started coming from sixteenth century AD constructed many churches and other buildings. Portuguese built many churches at Goa, the most famous of these are Basilica Bom Jesus and the church of Saint Francis. The British also built administrative and residential buildings which reflect their imperial glory. Some Greek and Roman influence can be observed in the colonnades or pillared buildings. Parliament House and Connaught Place in Delhi are good examples. The architect Lutyens, designed Rashtrapati Bhavan, formerly the Viceroy's residence. It is built of sandstone and has design features like *canopies* and *jaali* from Rajasthan. The Victoria Memorial in Calcutta, the former capital of British India, is a huge edifice in marble. It now houses a museum full of colonial artefacts. Writers' Building in Calcutta, where generations of government officers worked in British times, is still the administrative centre of Bengal after independence. Some Gothic elements can be seen in the church buildings like St. Paul's Cathedral in Calcutta. The British also left behind impressive railway terminals like the Victoria Terminus in Mumbai. More contemporary styles of building are now in evidence, after Independence in 1947. Chandigarh has buildings designed by the French architect, Corbusier. In Delhi, the Austrian architect, Stein, designed The India International Centre where conferences are held by leading intellectuals from all over the world and more recently, the India Habitat Centre which has become a centre of intellectual activities in the capital.





In the past few decades, there have been many talented Indian architects, some trained in premier schools of architecture like the School of Planning and Architecture (SPA) in Delhi. Architects like Raj Rewal and Charles Correa represent this new generation. Raj Rewal has designed the SCOPE Complex and Jawahar Vyapar Bhavan in Delhi. He takes pride in using indigenous building material like sandstone for construction and also combines steps and open spaces from the plazas of Rome. An example of this is the CIET building in Delhi. Charles Correa from Mumbai is responsible for the LIC Building in Connaught Place, Delhi. He has used glass facades in the high-rise to reflect light and create a sense of soaring height.

In domestic architecture in the last decade, Housing Cooperative Societies have mushroomed in all metropolitan cities combining utility with a high level of planning and aesthetic sense.



INTEXT QUESTIONS 13.4

1. Which were the most famous churches at Goa built by Portuguese?

2. Name the architect who designed the Rashtrapati Bhavan.

3. Which architectural style can be observed in buildings built during British empire in India?

4. What is contained in the Victoria Memorial building in Calcutta these day?

5. Who designed the city of Chandigarh?

6. Name the architect who deigned the India International Centre of Delhi?

7. Name some famous architects of modern India.

13.6 TOWNS AND CITIES IN INDIA

You have read in this lesson about the architecture of the ancient, medieval and modern periods in India. In the previous section you read about the School of Planning and



Architecture in Delhi. You can see that **Planning** goes with **Architecture**. Do you know that this **Planning** is actually **Town Planning**, which is linked with urban development? It is evident that when we think or talk of architecture, we have to think of the related idea of town planning or urban development. In this section we will learn about the growth and development of towns and cities in India. It is indeed an interesting story. We would also spend some time in going into details about the four major cities of contemporary India - Chennai, Mumbai, Kolkata and Delhi. We will trace the origin of these cities and learn about their important structures and buildings.

You would be surprised to know that starting from the Harappan civilization, (also known as Indus-Saraswati Civilization by some historians), India has had a very long history of town planning, which can be traced back to 2350 B.C. As you have already learnt, the two cities of Harappa and Mohenjo-Daro had an elaborate drainage system, roads which cut each other at right angles, a citadel which was built on a high ground and in the lower parts lived the rest of the population. Kalibangam in Rajasthan and Surkoda in Kutch had similar city structure. From 600 B.C. onwards, we come across more towns and cities that were associated with both Aryan as well as Dravidian civilization. These were Rajgir, Varanasi, Ayodhya, Hastinapur, Ujjain, Sravasthi, Kapilavastu and Kausambhi besides many others. We also come across many towns in the Mauryan period known as Janapadas (small towns) and Mahajanapadas (big towns).

With the coming of the Muslims to India, the scene changed. Islamic influence became evident in the towns. Mosques, forts and palaces now dotted the urban scene. According to Abul Fazal, there were 2,837 towns in 1594 A.D. This was mainly because many larger villages were transformed into smaller towns which came to be called qasbas. These qasbas soon came to be occupied by local artisans and craftspersons, who started specializing in their chosen craft, for example leather works and marble in Agra. Sind specialized in cotton textiles, silk etc, while Gujarat excelled in the art of weaving gold and silk threads and made brocades that were often exported to other countries.

As you know, later, during the 16th century, the Europeans came to India through the sea route and thus began the establishment of new port towns like Panaji in Goa (1510), Bombay in Maharashtra (1532), Machilipatnam (1605), Nagapattnam (1658), Madras (1639) in the south and Calcutta (1690) in the east. The reason why these new port towns were developed by the British was because during this time England had developed into a leading industrial economy of the world, while India was the leading supplier of raw materials for the British industries as well as a potential major buyer of these goods. After 1853, railway lines were also laid out by the British to carry goods from the interiors to the ports or connecting areas which were supplying raw materials or receiving finished goods. By 1905, nearly 28,000 miles of rail lines had been spread to serve the economic, political and military interests of the British. Post and telegraph lines were also laid which were needed for communication purposes.



Notes

By the beginning of the 20th century, Bombay (now Mumbai), Calcutta (now Kolkata) and Madras (now Chennai) had become well known important cities for administration, commerce as well as industries. Some places like Dalhousie Square in Calcutta, Fort St. George in Madras, Connaught Place in Delhi and the sea shores of Marine Drive in Bombay reminded the Europeans of their home in England. But they also wanted the coolness of their environs back home in Europe. So new centres developed in the hill stations near these big cities to beat the sultry summer months of India, e.g. Mussoorie, Simla and Nainital in the North; Darjeeling and Shillong in the East; Nilgiri and Kodaikanal in the South.

New residential areas like Civil Lines and Cantonments came up in towns. The area where civilian administrative Officers lived was called Civil Lines, while cantonments were areas meant for the British Army Officers. Do you know that even today these two areas are meant for the elite in the administration and the army as in those days?

Let us now read the four metropolitan cities of India – Chennai, Kolkata, Mumbai and Delhi. Surely, you know these cities.



INTEXT QUESTIONS 13.5

1. Name 5 cities that came up in the ancient period in India.
 - i) _____, ii) _____, iii) _____,
 - iv) _____, v) _____
2. Name 5 places where ports were set up by the British.
 - i) _____, ii) _____, iii) _____,
 - iv) _____, v) _____
3. Name 5 Hill Stations developed by the British.
 - i) _____, ii) _____, iii) _____,
 - iv) _____, v) _____
4. Who lived in the Civil Lines?

5. What was the Cantonment?

13.6.1 Chennai

Chennai, formerly known as Madras, is the capital of the state of Tamil Nadu, and is one of the four metropolitan cities of India. The city grew up around Fort Saint George, and



with time, absorbed the surrounding towns and villages. In the 19th century, the city became the seat of Madras Presidency, the southern division of British Imperial India. After independence in 1947, the city became the capital of Madras State, which was renamed as Tamil Nadu in 1968. It has retained its traditional Tamil Hindu culture, and has been able to provide a unique blend of foreign influence and Indian culture. Chennai's British influence is evident in various cathedrals, buildings, and wide tree-lined avenues.

The High Court Building, built in 1892, was said to be the largest judicial building in the world after the Courts of London. The main hallmark of Fort St George, its decorative domes and corridors, are reminiscent of new architecture.

The Ice House was used to store enormous blocks of ice cut from the Great Lakes in northern USA and shipped to India for refrigeration purposes during the colonial rule.



Another beautiful structure that came up during this time was the **Church of St. John** that had wide Gothic arches and beautiful stained-glass windows. It had the nave and aisles, a tower and a spire. The walls are made of rubble, faced with coarse Kurla Stone buff while the piers, arches, and dressings are of Porbunder Stone; the roof is built of teakwood and the floor of tiles imported from England.



Yet another structure worth mentioning that was built during this period was the **General Post Office**. Completed in 1872, the General Post Office in Chennai has a vast central hall, with a very high dome. It was built in local basalt with dressings of yellow stone from Kurla and white stone from Dhrangadra. It is an important tourist attraction. Inside, the marble topped tables, the high vaulted ceilings, and the sweeping staircases are designed for an ostentatious show of wealth and power of the British.

13.6.2 Kolkata

It is interesting to explore the origin & history of Kolkata. Do you know that it was the capital of British India till 1911? It was established as Calcutta in the year 1686, as a result of the expansion plans of the British. The city kept progressing until 1756, when Siraj-ud-Daula (Nawab of Bengal) attacked and succeeded in driving the British away from the town. In 1757, the following year, Battle





of Plassey took place, in which Robert Clive took over the city by defeating the Nawab.

With the establishment of Supreme Court at Calcutta in 1774, it became the seat of justice. The capital of British India was shifted from Calcutta to New Delhi in 1911. You may be aware that Calcutta was officially renamed as Kolkata in 2001. Let us now take a look at the famous structures and buildings of Kolkata that exist till today.

Howrah Bridge is located over the Hooghly River. It connects the city of Howrah to Calcutta. It stands on two 270 feet high pillars and was constructed without using any nuts and bolts. This bridge acts as an important symbol of Kolkata. It is probably the busiest bridge of the world.



Located in north Calcutta, **Marble Palace** was constructed in 1835. It serves as an exquisite art gallery. It displays marvelous objects of art, sculptures, pictures & oil paintings. It also has a zoo, where you can find different kinds of birds and animals. In fact, it has a rare collection of birds.



Fort William is situated at the banks of river Hooghly. It was established by the British, initiated by Robert Clive in 1696; it got completed by 1780. The basic purpose of setting up Fort William was to prevent attacks from invaders. The area that was cleared around the fort has become a maidan, where several exhibitions and fairs take place till today.



Victoria Memorial Hall in Calcutta is a fabulous museum that was established in the year 1921. It is a fantastic place that takes visitors into the world of past history. Today, Victoria Memorial is one of the finest art museums in Kolkata. It is a 184 ft tall edifice that was constructed on 64 acres of land.



Do you know that Eden Gardens Cricket Club in Calcutta came into existence in the year 1864. Today it has the capacity to



accommodate about 1, 20,000 persons. Eden Gardens of Calcutta definitely falls into the category of must see places.

The construction of **Writers Building** began as early as in 1690. It got its name owing to the fact that it served as the dwelling place for the junior writers of the East India Company. This Gothic structure came into existence during the tenure of Lt. Governor Ashley Eden (1877).

**Notes**

13.6.3 Mumbai

You know that Mumbai is located on the shores of Arabian Sea, on the West Coast of India. You will be surprised to know that it was once a group of seven islands. Although its site has been inhabited since pre-historic times, the city of Mumbai dates only to the arrival of the British in the 17th century, when it came up as Bombay. However, it really took shape in the 19th century. It was the first Indian city to have railways. Along with Calcutta, it was one of the first two Indian cities where newspapers came into existence.

During the second half of the 19th century many civic and public buildings were constructed in Bombay in Victorian Gothic Style e.g. the Secretariat (1874) the Council Hall (1876) and Elphinstone College (1890). But the most impressive style was the Victoria Terminus (modern Chhatrapati Shivaji Terminus), the massive railway construction in 1887. It looks more like a cathedral than a railway station. It contains carved stone friezes, stained glass windows and flying walls.



The famous Gateway of India was built with yellow stone in Indo-Saracenic style of architecture to honour the visit of King George V and Queen Mary to India. It was completed in 1924 at a cost of Rupees 24 lakhs, which was a fortune in those days. It has a 26 metre high archway and is complete with four turrets and intricate lattice work carved into the yellow basalt stone.



Since independence, Mumbai has continued to be India's leading commercial and industrial city. The stock exchange, the business centres, the famous film industry called Bollywood



and anything you call in the name of westernization and modernization is all here. As you know, today it is the most important financial city of India with important industries like textiles, finance and film making. You are aware of the famous Bollywood, the biggest film industry in the world, where so many Hindi films are produced. Once known as the Gateway to India, traces of British rule are still evident in the city of Mumbai.



INTEXT QUESTIONS 13.6

1. Name 4 famous places of Chennai.

i) _____	ii) _____
iii) _____	iv) _____

2. Name 4 famous places of Kolkata.

i) _____	ii) _____
iii) _____	iv) _____

3. Name 4 famous places of Mumbai.

i) _____	ii) _____
iii) _____	iv) _____

13.6.4 Delhi

Do you know that Delhi became the capital of British India in 1911? That is why Delhi celebrated its 100th anniversary in 2011. Evidently, it was in 1911 that the modern city now called New Delhi came up. However, Delhi has a history much older than that. It is believed that there are at least seven important old cities that have come together to form Delhi. The first city of Delhi is believed to have been established on the right bank of the Yamuna by Yudhishtira, the oldest of the Pandava brothers by the name of **Indraprastha**. Surely, you remember the story of *Mahabharata*, which is the legend of the Pandavas and Kauravas!



According to folklore, Delhi was founded by Raja Dhilu. During the 2nd century A.D, Ptolemy, the Geographer marked Delhi in his map as **Daidala**.

But it was much before this that among the innumerable Harappa sites figures the city now called Delhi. The evidence of this can be seen if you visit the National Museum at Delhi.



From that time onwards, Delhi has continued to grow. Today it has expanded so much that it is now one of the largest cities, not only in the country, but in the whole world.

A very interesting legend is associated with Delhi. The story goes like this: A snake Vasuki was pushed underground by an Iron Pillar in the Qutab Minar Complex during the time of King Ashoka. Several years later, when the Tomar king Anang Pal of **Lal Kot**, established his rule in Delhi, he pulled out this pillar and set the serpent free. At that time, it was predicted that no dynasty would now be able to rule over Delhi for long. After the Tomars came the Chauhans, who built a city called **Qila Rai Pithora** in the Lal Kot area, near Mehrauli. Prithvi Raj Chauhan of this dynasty ruled from **Mehrauli**.

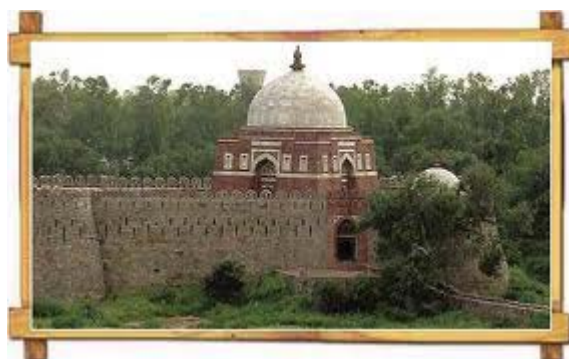


Delhi again came into prominence when the Slave Dynasty came into power. You will remember reading that Qutb-ud-din had started building the famous Qutub Minar, which was later finished by Iltutmish.

Later, when Alauddin Khilji became the Sultan, it was **Siri** that became the centre of power. The Siri Fort still exists and this area in Delhi is known as Shahpur Jat. Siri also has an interesting story to tell. Alauddin Khilji's rule was constantly threatened by the Mongol invasions. Some of these Mongols who stayed back in the city rebelled. Alauddin Khilji got them beheaded and their heads were buried under the walls of the city. That is how the place came to be called Siri. As you know the word *sir* means head. We still use that word for head.



Some years later, when the Tughlaq dynasty came to power, Sultan Ghiyasuddin Tughlaq constructed the city called **Tughlaqabad**. This was designed as a fortified town. After Ghiyasuddin's death, Mohammed Bin Tughlaq (1320-1388) enclosed the earlier cities of Delhi into a single unit and named it **Jahanpanah**.





Notes

Ibn Batuta, who served in the court of Mohammed Bin Tughlaq, has given a very interesting description of this city. He has described it as “.....the metropolis of India, a vast and magnificent city, uniting beauty with strength. It is surrounded by a wall that has no equal in the world, and is the largest city in India, nay rather the largest city in the entire Moslem Orient.”

Another important ruler of Tughlaq dynasty was Firoz Shah. During his reign, Delhi had an enormous population and covered an extensive area. He constructed **Firozabad**, located near Firoz Shah Kotla. However, the invasion of Timur, the king of Samarkand, in 1398, destroyed its glory, including the city of **Jahanpanah**. Timur took with him Indian architects and masons to build the mosques at Samarkand. The succeeding rulers shifted their capital to Agra.

It was the Mughal ruler Humayun, who built **Dinpanah** on the mound of ancient Indraprastha. However, it was Humayun's grandson, Shah Jehan, who revived the lost glory of Delhi. He started building the Red Fort in 1639 and finished it in 1648. In 1650, he started the work of building the famous Jami Masjid. Shah Jehan's city was called **Shahjahanabad**. Great poets such as Dard, Mir Taki Mir and Mirza Ghalib, etc. made Ghazals and the language of Ghazals, i.e. Urdu famous during this period. It is believed that Shahjahanabad was more beautiful than Baghdad in Iraq and Constantinople in Turkey. Over the centuries, the city was looted and destroyed by the armies of Nadir Shah (1739), Ahmad Shah Abdali (1748) as well as continuous attacks from within. All these weakened the city. But, in spite of all these problems, Delhi still had much to offer - Music, Dance, Drama and variety of delicious food along with a rich cultural language and literature.

It was said that Delhi was the home to at least 24 Sufis of which the most famous were from the Jahanpanah area. Some of them were:

1. Kutbuddin Bakhtiyar Kaki whose khanqah or dera was at Mehrauli;
2. Nizamuddin Auliya, whose khanqah was at Nizamuddin;
3. Sheikh Nasiruddin Mahmud, who is popularly known today as Chiragh-e-Delhi;
4. Amir Khusro, who was a great poet, magician and scholar.

After 1707, the Mughal power weakened and Delhi became a pale shadow of itself. In 1803, the British occupied Delhi after defeating the Marathas. The areas around Kashmere Gate and Civil Lines became important centres, where the British built many structures. In 1911, the British shifted their capital to Delhi and built an entirely new city called New Delhi. It was made on a majestic scale. The large structure of the India Gate, the Viceroy House which is now the Rashtrapati Bhavan, Parliament House and the North and South Blocks were all made to impress the Indian subjects of the British rule. They were meant to show the supremacy, the majestic power as well as the regality of the British. This new city was completed by 1932. The Connaught Place still remains an important commercial



centre of the city. Delhi remains an important commercial, cultural and political centre of India. Massive buildings, beautiful parks, flyovers, the Metro, a beautiful airport, educational centres, museums, big wholesale markets, Embassies and High Commissions of all countries of the world, large malls, major industries, etc. all contribute to making it a beautiful city. It is said: *Dilli hai dil walon ki* (Delhi belongs to those who have a large heart).



INTEXT QUESTIONS 13.7

1. Match the cities within Delhi with the king who built them

S. No.	Name of the City	Name of king who built it
1.	Indraprastha	Prithvi Raj Chauhan
2.	Lal Kot	Mohammed Bin Tughlaq
4.	Mehrauli	Yudhishthira
5.	Siri	Firoz Shah Tughlaq
6.	Jahanpanah	Humayun
7.	Tughlaqabad	Shah Jehan
8.	Firozabad	Alauddin Khilji
9.	Dinpanah	Anang Pal Tomar
10.	Shahjahanabad	Ghiyasuddin Tughlaq

2. Name 4 famous Sufi saints of the Jahanpanah area.

- i) _____ ii) _____
 iii) _____ iv) _____



WHAT YOU HAVE LEARNT

- The history of Indian architecture and sculpture is as old as the civilization of Indus Valley.
- Architecture holds the key to the understanding of the cultural diversity of any part of India as it is influenced by the cultural traditions and religious practices of different times.
- Buddhism and Jainism helped in the development of early architectural style of India in building stupas, viharas and chaityas.



- During the time of Gupta, Pallavas and Cholas temple architecture flourished.
- Delhi Sultanate and Mughals brought with them Persian influence and we witness an Indo-persian style of architecture.
- The Britishers and other colonial powers brought the European impact on Indian architecture and effected a synthesis of those with indigenous styles and also instituted the typical colonial style of architecture where materials were used to fashion majestic buildings and offices.
- Starting from the Harappa civilization, India has had a very long history of town planning, which can be traced back to 2350 B.C.
- Several towns came up since then.
- There were 2,837 towns in 1594.
- By the beginning of the 20th century, Bombay (now Mumbai), Calcutta (now Kolkata) and Madras (now Chennai) had become well known important cities for administration, commerce as well as industries.
- Delhi became the capital of British India in 1911. However, Delhi has a history much older than that.
- It is believed that there are at least seven important old cities that have come together to form Delhi. These are probably Indraprastha, Lal Kot, Mehrauli, Siri, Tughlaqabad, Firozabad and Shahjahanabad



TERMINAL EXERCISE

1. Describe architectural styles of Harappan civilization.
2. Elaborate the contributions of Gupta, Pallavas and Chola rulers in the temple architecture of India.
3. What were the different styles of architecture and sculpture found in India?
4. Buddhism and Jainism had contributed in the architecture developemnt of India - discuss.
5. How would you view the construction of monuments during the regime of Delhi Sultanate?
6. The architecture during Mughal period was a synthesis of the Indian, Persian, Mongol and Mughal style. Elaborate.
7. Narrate the story of Delhi in your own words.

8. Find out the truth about the saying *Dilli hai dil walon ki*. Write an essay on it. You can search on the internet or get books from a library.

**ANSWERS TO INTEXT QUESTIONS****13.1**

1. The emergence and decay of great empires and dynasties in the sub-continent influenced the growth and shape of Indian culture.
2. The Public bath at the site of Mohenjodaro is an evidence of their engineering skills.
3. Kushinagar
4. Lumbini, Sarnath, Bodhi Tree, Kushinagar
5. During Gupta period
6. Religious architectural remains related to Lord Buddha
7. At Lothal, Gujarat

13.2

1. A large palace carved out of wood.
2. Sanchi stupas and Sarnath stupas
3. On Monolithic stone pillars
4. Gandhara Art
Mathura School
Amaravati School
5. In Orissa
6. The Rashtrakutas
7. The Pallavas
8. A temple architecture style having vimana or shikara, high walls and the gateway topped by gopuram.
9. Brihadeshwara Temple
10. Temples constructed with shikaras (spiral roofs), the garbhagriha (sanctum) and the mandap (Pillared Halls)
11. Narshimha Deva I



**12. Dilwara Temple****13.3**

1. Domes, arches, minarets
2. Quwwatiful Islam mosque at Delhi
Qutab Minar - At Delhi
Tomb of Mohammad Tuglaq
Tomb of Firoz Tuglaq
Tomb of Ibrahim Lodhi - At Delhi
Sher Shah Tomb at Sasaram
3. Gol Gumbaz
4. Decorative design in inlay work in building constructed during mughal period.
5. Buland Darwaja

13.4

1. Basilica Bom Jesus and the church of Saint Francis.
2. Lutyens
3. Greek and Roman architectural styles.
4. It houses museum full of colonial artefacts.
5. French architect Corbusier.
6. An Austrian architect Stein
7. (i) Raj Rewal (ii) Charles Correa

13.5

1. Harappa, Mohenjo-Daro, Kalibangam, Surkoda Rajgir, Varanasi, Ayodhya, Hastinapur, Ujjain, Sravasthi, Kapilavastu, Kaushambi or any other/s not mentioned in this lesson.
2. Any 5 out of Panaji, Bombay, Machilipatnam, Nagapattnam, Madras, Calcutta or any other/s not mentioned in this lesson.
3. Any 5 out of Mussoorie, Simla, Nainital, Darjeeling, Shillong, Nilgiri, Kodaikanal or any other/s not mentioned in this lesson.
4. Civilian Officers
5. Army Officers



13.6

1. The High Court Building, The Ice House, Church of St. John, General Post Office or any other/s not mentioned in this lesson.
2. Any 4 out of Howrah Bridge, Marble Palace, Writers Building, Fort William, Eden Gardens, Victoria Memorial Hall or any other/s not mentioned in this lesson.
3. Any 4 out of Secretariat, Council Hall, Elphinstone College, Victoria Terminus (modern Chhatrapati Shivaji Terminus), Gateway of India or any other/s not mentioned in this lesson.

13.7

S. No.	Name of the City	Name of king who built it
1.	Indraprastha	Yudhishtira
2.	Lal Kot	Anang Pal Tomar
4.	Mehrauli	Prithvi Raj Chauhan
5.	Siri	Alauddin Khilji
6.	Jahanpanah	Mohammed Bin Tughlaq
7.	Tughlaqabad	Ghiyasuddin Tughlaq
8.	Firozabad	Firoz Shah Tughlaq
9.	Dinpanah	Humayun
10.	Shahjahanabad	Shah Jehan

2. Kutbuddin Bakhtiyar Kaki, Nizamuddin Auliya, Sheikh Nasiruddin Mahmud, Amir Khusro, or any other/s not mentioned in this lesson.