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Figure 22.1 shows the first balcony of the Qutb Minar. Qutbuddin Aybak had constructed this monument in Delhi around 1199 CE. Notice the pattern created under the balcony by the small arches and geometrical designs. Can you find two bands of inscriptions under the balcony? These are words written in Arabic. Notice that the surface of the minar is curved and angular. Placing an inscription on such a surface requires great precision. Only the most skilled craftspersons could perform this task. Remember that very few buildings were made of stone or brick 800 years ago. What would have been the impact of a building like the Qutb Minar on observers in the thirteenth century?

Between the eighth and the eighteenth centuries, kings and their officers built two kinds of structures: the first were forts, palaces and tombs – safe, protected and grandiose places of rest and the second were structures meant for public activity including temples, mosques, tanks, wells, caravan *serais* and *bazaars*. Kings were expected to look after their subjects, and by making structures for their use and comfort, rulers hoped to win their praise. Construction activity was also carried out by others including merchants. They built temples, mosques and wells. However, domestic architecture – large mansions (*havelis*) of merchants – has survived only from the eighteenth century.

Fig 22.1

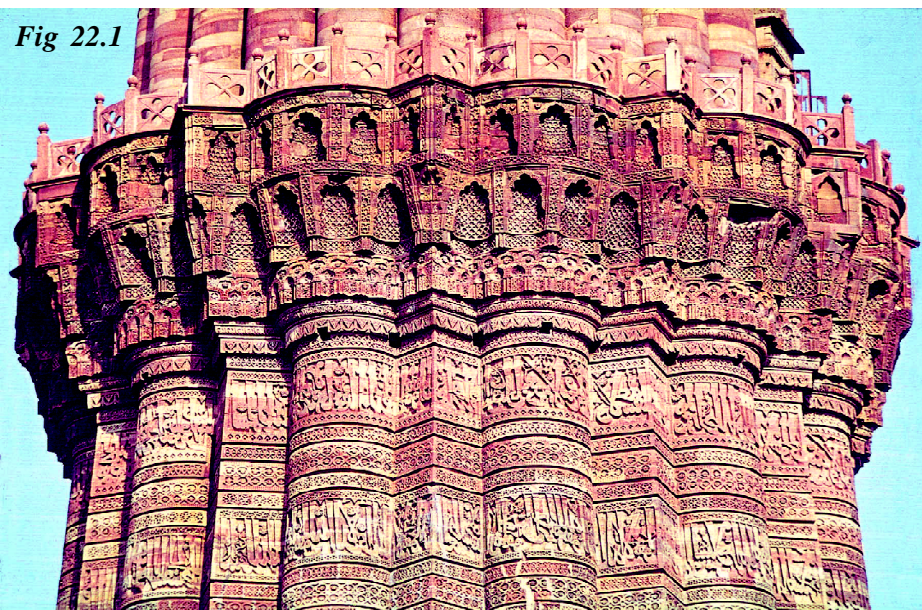


Figure 22.1: Qutb Minar is five storeys high. The band of inscriptions you see are under its first balcony. The first floor was constructed by Qutbuddin Aybak and the rest by Iltutmish around 1229. Over the years, it was damaged by lightning and earthquakes and repaired by later kings.



Fig 22.2a Screen in the Quwaat al-Islam mosque, Delhi.

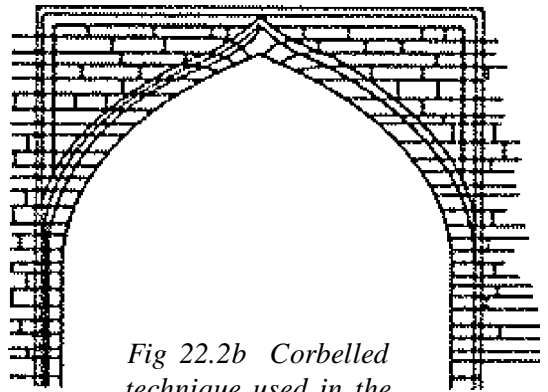


Fig 22.2b Corbelled technique used in the construction of an arch.

22.1 Engineering Skills and Construction

Monuments provide an insight into the technologies used for construction. Take something like a roof for example. We can make it by placing wooden beams or a slab of stone across four walls. But the task becomes difficult if we want to make a large room with an elaborate superstructure. This requires more sophisticated skills.

Between the seventh and tenth centuries, architects started adding more rooms, doors and windows to buildings. Roofs, doors and windows were still made by placing a horizontal beam across two vertical columns, a style of architecture called “trabeate” or “corbelled”. Between the eighth and thirteenth centuries, the trabeate style was used in the construction of temples, mosques, tombs and buildings attached to large stepped-wells.



- ◆ Visit some old temples or Masjids near your place and look for examples of trabeate style (style in which the roof is supported by beams placed on pillars).



- ◆ This style of supporting the roofs required placing pillars near each other and large open halls could not be built. Can you figure out why?

22.2 Temple Construction in the Early Eleventh Century

The Kandariya Mahadeva temple dedicated to Shiva was constructed in Khajuraho, Madhya Pradesh 999 CE by King Dhangadeva.

Fig. 22.3b is the plan of the temple of the Chandela dynasty. An ornamented gateway led to an entrance and the main hall (*mahamandapa*) where dances were performed. The image of the chief deity was kept in the main shrine



Fig 22.3a The Kandariya Mahadeva Temple of lord shiva in Khajuraho.

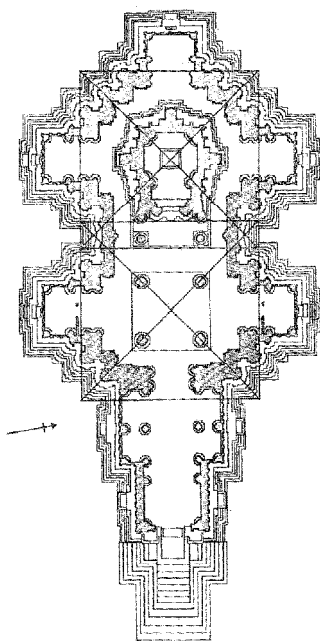


Fig: 22.3b The Kandariya Mahadeva Temple of lord Shiva ground plan.

(*garbhagriha*). This was the place for ritual worship where only the king, his immediate family and priests gathered. The Khajuraho complex contained royal temples where common people were not allowed to enter. The temples were decorated with elaborately carved sculptures.

The Rajarajeshvara temple at Thanjavur had the tallest *shikhara* amongst the temples of its time. Constructing it was not easy because there were no cranes in those days and the 90 tonne stone for the top of the *shikhara* was too heavy to lift manually. So, the architects built an inclined path to the top of the temple, placed the boulder on rollers and rolled it all the way to the top. The path started more than four kilometres away so that it would not be too steep. The path was dismantled after the temple was constructed.

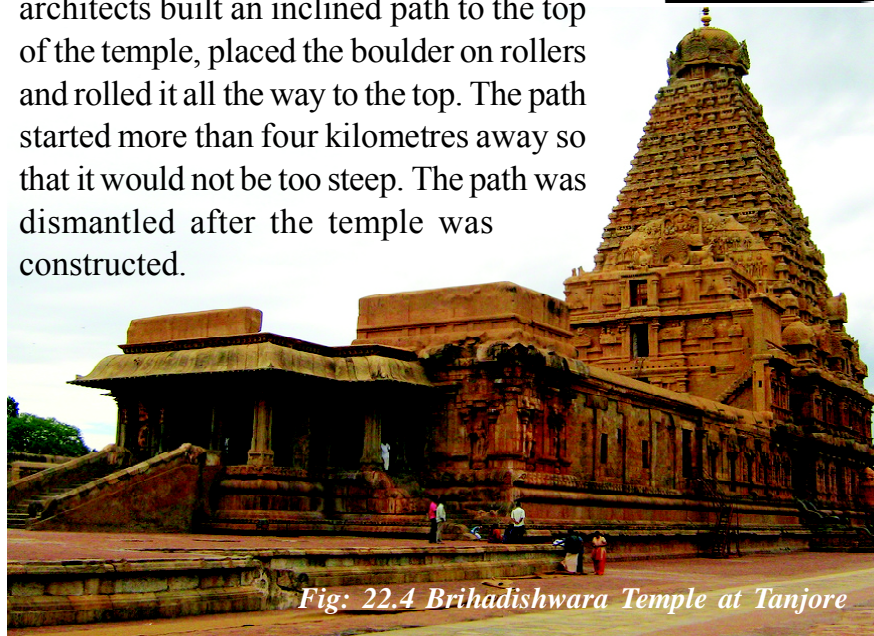


Fig: 22.4 Brihadishwara Temple at Tanjore

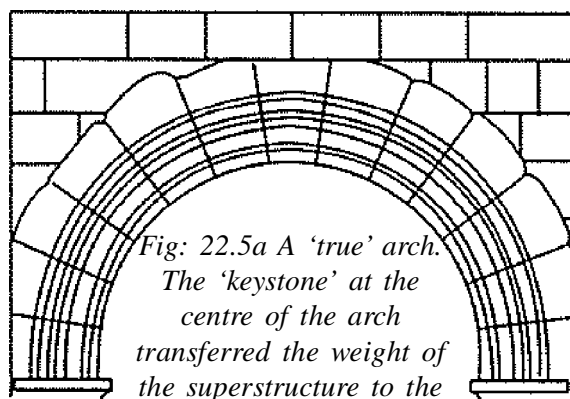


Fig: 22.5a A 'true' arch. The 'keystone' at the centre of the arch transferred the weight of the superstructure to the base of the arch.



Fig: 22.5b True arch; detail from the Alai Darwaza (early fourteenth century). Quwwat al-Islam mosque, Delhi.

22.3 A new way of building

Two technological and stylistic developments are noticeable from the twelfth century:

(1) The weight of the superstructure above the doors and windows was sometimes carried by arches. The roof too used this principle and was converted into vaults and domes. This architectural form is called "arcuate".

- ◆ Compare Figures 22.2a and 22.2b with 22.5a and 22.5b.

(2) Limestone cement was increasingly used in construction. This was very high quality cement, which, when mixed with stone chips hardened into concrete. This made construction of large structures easier and faster. Arches, domes and limestone mortar were used extensively in the buildings after 1190 CE. Take a look at the construction site in Figure 22.6.

- ◆ Describe what the labourers are doing, the tools shown, and the means of carrying stones.



Fig: 22.6 A painting from the Akbar Nama (dated 1590-1595), showing the construction of water gate at Agra Fort.

- ◆ Do you think these new techniques could be used to build large halls and tall buildings?

22.4 Building Temples, Mosques and Tanks

Temples and mosques were beautifully constructed because they were places of worship. They were also meant to demonstrate the power, wealth and devotion of the patrons. Take the example of the Rajarajeshvara temple. An inscription mentions that it was built by King Rajarajadeva for the worship of his god, Rajarajeshvara. Notice how the name of the ruler and the god are very similar. The king took the god's name because it was auspicious and he wanted to appear like a god. Through the rituals of worship in the temple, one god (Rajarajadeva) honoured another (Rajarajeshvara).

You may recall that the Kakatiya capital city – Orugallu was so designed as to have the temple of Svayambhu Shiva at the centre. This was built by the Kakatiyas to proclaim their power and status as independent kings.

The largest temples were all constructed by kings. The other, lesser deities in the temple were gods and goddesses of the allies and subordinates of the ruler. The temple was a miniature model of the world ruled by the king and his allies. As they worshipped their deities together in the royal temples, it seemed as if they brought the just rule of the gods on earth.

The kings and nobles endowed the temples with land, gold and jewels

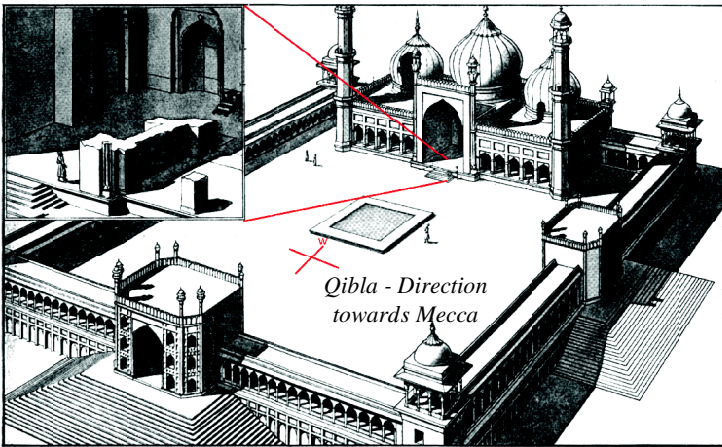


Fig 22.7 Plan of the Jami masjid built by Shah Jahan in his new capital at Shahjanabad 1650-1656.

so that the worship of the gods could be carried out on a grand scale. By 1200 CE, most of these temples had become elaborate institutions, which employed hundreds of artisans, dancers, musicians, priests, administrators, servants etc. They collected taxes from the villages, lent money on interest to traders, organised fairs and markets to which buyers and sellers of goods came. Several religions of Shaiva and Vaishnava sects were established around these temples. These temples thus became centres of political and economic power. Kings and rulers wanted to associate their names with these temples by organising their coronation ceremonies in the temples and by giving expensive and elaborate gifts to them and adding to the constructions.

Muslim Sultans and Badshahs did not claim to be incarnations of god but Persian court chronicles described the Sultan as the “Shadow of God”. An inscription in the Delhi mosque explained that God chose Alauddin as a king because he had the qualities of Moses and Solomon, the great law-givers of the past. The greatest law-giver and architect was God Himself. He created the world out of chaos and

introduced order and symmetry.

As each new dynasty came to power, kings wanted to emphasise their moral right to be the rulers. Constructing places of worship provided rulers with the chance to proclaim their close relationship with God, especially important in an age of rapid political change. Rulers also offered patronage to the learned and pious, and tried to transform their capitals and

cities into great cultural centres that brought fame to their rules and realm.

It was popularly believed that the rule of a just king would be an age of plenty when the heavens would not withhold rain. At the same time, making precious water available by constructing tanks and reservoirs was highly praised. Sultan Iltutmish won universal respect for constructing a large reservoir just outside *Dehli-i kuhna*. It was called the *hauz-i Sultani* or the “King’s Reservoir”.

Rulers often constructed tanks and reservoirs – big and small – for use by ordinary people.

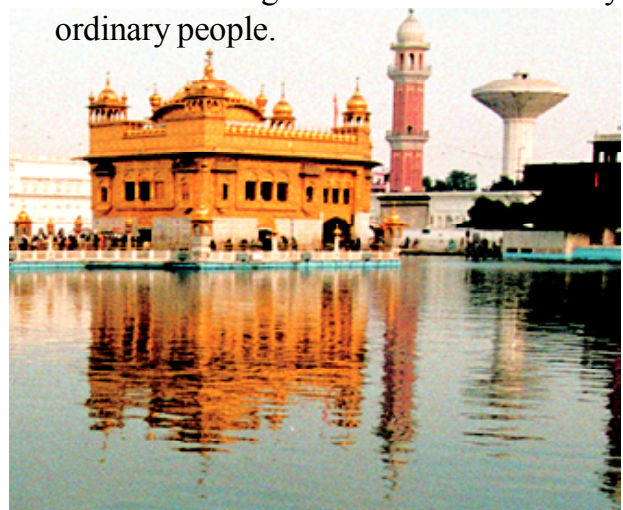


Fig 22.8 Harmandar Sahib (Golden Temple) with the holy tank in Amritsar.



◆ You have read about both, the shrines of village gods and elaborate temples and mosques – why do you think are they so different?

22.5 Why were Temples Destroyed?

Since the kings built temples to demonstrate their devotion to God and their power and wealth, it is not surprising that when they attacked one another's kingdoms, they often targeted these buildings. In the early ninth century, the Pandyan king Shrimara Shrivallabha invaded Sri Lanka and defeated the king, Sena I (831-851). The Buddhist monk and chronicler Dhammakitti, noted: "he removed all the valuables... The statue of the Buddha made entirely of gold in the Jewel Palace... and the golden images in the various monasteries – all these he seized." The blow to the pride of the Sinhalese (Srilankan) ruler had to be avenged and the next Sinhalese ruler, Sena II, ordered his general to invade Madurai, the capital of the Pandyas. The Buddhist chronicler noted that the expedition made a special effort to find and restore the golden statue of the Buddha.

Similarly, in the early eleventh century, when the Chola king Rajendra I built a Shiva temple in his capital, he filled it with prized statues seized from defeated rulers. The list included: a Sun-pedestal from the Chalukyas, a Ganesha statue and several statues of Durga; a Nandi statue from the eastern Chalukyas; an image of Bhairava (a form of Shiva) and Bhairavi from the Kalingas of

Odisha; and a Kali statue from the Palace of Bengal.

Sultan Mahmud of Ghazni was a contemporary of Rajendra I. During his campaigns in the subcontinent, he also attacked the temples of defeated kings and looted their wealth and idols. Sultan Mahmud was not a very important ruler at that time. But by destroying temples – especially the one at Somnath – he tried to win credit as a great hero of Islam. In the political culture of the Middle Ages, most rulers displayed their political, might and military success by attacking and looting the places of worship of the defeated rulers.



◆ In what ways do you think were the policies of Rajendra I and Mahmud of Ghazni a product of their times? How were the actions of the two rulers different?

22.6 Imperial Style of the Vijayanagara Period

The city of Vijayanagara was developed by the Rayas to act as the imperial capital



Fig: 22.9 Virupaksha Temple in Hampi.



Fig 22.10a Lotus Temple.

it to reflect all the important imperial building traditions. They built large temples for Sri Virupaksha, Ramachandra, Krishna and Vitthala using a style that had been developed by Chola and Pandya emperors of Tamil Nadu. This included the *Vimanas* and the *Gopurams*. The Rayas paid special attention to the *Gopurams*, which were now built on a scale and height as never before.

It consisted of a first floor usually built of solid granite and a series of upper floors made of brick and *chunam*. These structures of immense scale must have been a mark of imperial authority that often dwarfed the towers on the central shrines, and signaled the presence of the temple from a great distance. They were also probably meant as reminders of the power of kings, able to command the resources, techniques and skills needed to construct these towering gateways. Other distinctive features include *mandapas* or pavilions and long, pillared corridors that often ran around the shrines within the temple complex. Let us look closely at the Virupaksha temple.

The Virupaksha temple was built over many centuries while inscriptions suggest



Fig 22.10b Queen's Bath.

that the earliest shrine dated to the ninth-tenth century. It was substantially enlarged with the establishment of the Vijayanagara Empire. The hall in front of the main shrine was built by Krishnadevaraya to mark his accession. It was decorated with delicately carved pillars. He is also credited with the construction of the eastern *Gopuram*. These additions meant that the central shrine came to occupy a relatively small part of the complex.

The halls in the temple were used for a variety of purposes. Some of the halls were spaces in which the images of gods were placed to witness special programmes of music, dance, drama etc. Others were used to celebrate the marriages of deities. And yet others were meant for showing the replica of deities, which were distinct from those kept in the small central shrine.

While the Vijayanagara rulers built these temples on the Tamil Nadu model, they also built elaborate secular royal buildings, which were modelled on the style and techniques of the Sultanate architecture. The famous Lotus Mahal (named so by British visitors), Queen's Bath and the Elephant Stables are examples of this style.

You can notice the use of arches and domes in these buildings. They were covered with *chunam* plaster and decorated with elaborate floral and bird designs. It appears that the kings and their nobles lived in these buildings and displayed their wealth and cosmopolitan taste. However, these buildings did not just copy the designs of the sultanate buildings. They combined designs and features of southern temples with the arches and domes. The best example of this style is in the Lotus Mahal, which was probably a palace where the kings held their meetings.

The most impressive remain of Vijayanagara, the Mahanavami Dibba, is a high platform of 55 feet, that is, as tall as a five floor building, and spread over 11000 Sq. feet in area. Its height was increased at least three times during two hundred years. The sides of the platform were covered with sculptures of various kinds. It did not have a complete building on the top. The platform was covered by cloth shamiana or pandal supported by wooden pillars. The Vijayanagara kings held their Navaratri Puja and Dussera court on this platform. All their subordinate chiefs, *nayakas* and officers paid their tributes to the Emperor in these programs. Ambassadors from Europe and other sultanates also attended the festival.



Fig 22.10c Elephant stable.



♦ Why do you think did the emperors of large kingdoms try to use different styles of buildings?

22.7 Gardens, Tombs and Forts

Under the Mughals, architecture became more complex. Mughal emperors were personally interested in literature, art and architecture. In his autobiography, Babur described his interest in planning and laying out formal gardens, placed within rectangular walled enclosures and divided into four quarters by artificial channels.

These gardens were called *chahar baghs*, four gardens, because of their symmetrical division into 4-quarters. Beginning with Akbar, some of the most beautiful *chahar baghs* were constructed by Jahangir and Shah Jahan in Kashmir, Agra and Delhi.



Fig 22.10d Mahanavami dibba



Fig: 22.11 A painting of Babur supervising workers laying out a *chahar bagh* in Kabul. Note how the intersecting channels on the path create the characteristic *chahar bagh* design.



Fig: 22.12 Tomb of Humayun, Can you see the water channels?

There were several important architectural innovations during Akbar's reign. For inspiration, Akbar's architects turned to the tombs of his Central Asian ancestor, Timur. The central towering dome and the tall gateway (*pishtaq*) became important aspects of Mughal architecture, first visible in Humayun's tomb. The tomb was placed in the centre of a huge formal *chahar bagh* and built in the tradition known as "eight paradises" or *hasht bihisht* – a central hall surrounded by

eight rooms. The building was constructed with red sandstone, edged with white marble.

It was during Shah Jahan's reign that the different elements of Mughal architecture were fused together in a grand harmonious synthesis. His reign witnessed a huge amount of construction activity especially in Agra and Delhi. The ceremonial halls of public and private audience (*diwan-i-khas* or *diwan-i-aam*) were carefully planned. These courts were also described as *chihil sutun* or forty-pillared halls, placed within a large courtyard.

Shah Jahan's audience halls were specially constructed to resemble a mosque. The pedestal on which his throne was placed was frequently described as the *qibla*, the direction in which Muslims pray, since everybody faced that direction when court was in session. The idea of the king as a representative of God on earth was suggested by these architectural features.

The connection between royal justice and the imperial court was emphasised by Shah Jahan in his newly constructed court in the Red Fort at Delhi. Behind the balcony of the emperor's throne, there were a series of *pietra dura* inlays that depicted the legendary Greek god

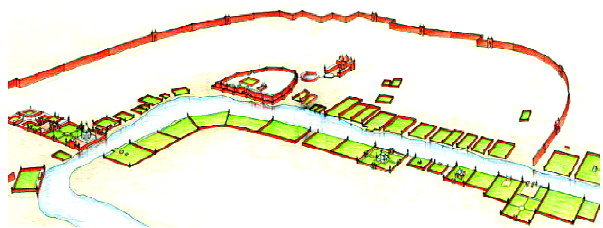


Fig: 22.13 A reconstruction from a map of the river-front garden city of Agra. Note how the garden palaces of the nobles are placed on both banks of the Yamuna. The Taj Mahal is on the left.