# Chapter 3: A Journey through Indian Architecture

## Exercise 3.1 — Questions and Activities

Q1 In Fig. 3.5, calculate the full width of the house; compare with the length of your classroom. How many staircases can you make out? If the house owners lived upstairs, what might the rooms downstairs be used for?

Fig. 3.5 shows a plan of a large house in Mohenjo-daro drawn to a scale of 0–5 metres. The scale bar allows the full width to be calculated from the plan (compare against the length of your classroom). The house plan appears to show two staircases. The chapter notes that the owners probably lived upstairs to escape dust and noise from the street. The rooms downstairs would likely have served as servants' quarters, storage rooms, workrooms, or reception areas for visitors — spaces that required easier access from the street but less privacy.

Q2 Form groups of four or five students and imagine you are artisans with just simple tools. Looking at Fig. 3.8, how would you go about building a dome of bricks? Looking at Fig. 3.12, how would you carve such a ceiling? Discuss and compare the different groups' conclusions.

This is a group discussion activity. For the dome (Fig. 3.8 — Sanchi Stupa): begin with a circular base, then lay each successive ring of bricks slightly inward (corbelling), supporting each ring temporarily with wooden scaffolding until the bricks lock at the crown. For the cave ceiling (Fig. 3.12 — Ellora cave no. 10): work from the top of the rock downward, removing rock layer by layer with hammers and iron chisels, and leave the ribs that imitate wooden beams uncut. The challenge is planning the removal precisely so the ceiling ribs remain intact and no crack splits the rock. Compare conclusions across groups, noting differences in scaffolding design and the sequence of chiselling.

Q3 Why should there be so many stairways in Fig. 3.15? And in Fig. 3.17?

Fig. 3.15 shows the large interconnected reservoirs at Shringaverpur, Uttar Pradesh, which were fed by a channel from the Ganga during seasonal flooding. Multiple stairways allowed workers and people to descend to different water levels as the water rose or fell with the seasons, making it easy to draw water at any level. Fig. 3.17 shows a pushkarini (temple tank) at Vijayanagara. Here too, stairways on all sides let worshippers and devotees reach the water for ritual bathing or drawing water for religious purposes regardless of how full the tank was. The stairways also made these tanks social spaces where people could sit and gather, as noted for stepwells in the chapter.

Q4 Which pillars are easier to sculpt in your opinion—those in Fig. 3.25 or 3.27? Justify your answer.

Fig. 3.25 shows the intricately carved marble pillars inside the Dilwara Temple at Mount Abu, while Fig. 3.27 shows the terracotta work on the facade of the Bishnupur temples. In most students' opinion, the terracotta panels (Fig. 3.27) are easier to sculpt because the clay is shaped and carved by hand before being fired in a kiln — the artisan works on soft, manageable material at a convenient workbench. The marble pillars of Dilwara (Fig. 3.25) required carving extremely hard stone in place, demanding exceptional precision, specialised tools, and far greater physical effort. The chapter notes that the Dilwara carvings are described as 'delicate', pointing to the extraordinary skill involved in working white marble.

Q5 What are some common features across the different types of temples you have visited in this chapter? What are some of the differences?

Common features: all temples — Buddhist, Jain, and Hindu — served as places of worship and also as centres of learning, art, and community life. They all share a sacred inner chamber (or its equivalent) and the tradition of pradakshinā (circumambulation). Many feature elaborate carvings and sculptures, and were built under royal patronage following technical treatises. Differences: the Sanchi Stupa has a hemispherical dome and torana gateways; classical Hindu temples have a garbhagriha topped by a shikhara or vimana and mandapas; the Dilwara Temples are built of white marble with delicate Jain iconography; the Bishnupur terracotta temples use fired brick panels with Vaishnava themes. Regional styles also differ — the pyramidal vimana of Brihadishvara contrasts with the curvilinear shikhara of the Lingaraja Temple.

Q6 In the houses shown in Fig. 3.46 and 3.47, the central courtyard will receive a lot of water during rains. Will this not flood the house?

No, flooding was managed by design. Traditional houses with central courtyards — whether Shekhawati havelis (Fig. 3.46) or Chettinad houses (Fig. 3.47) — were built with the courtyard floor slightly sloped and fitted with a drain or sump at the centre, so rainwater could flow out or be collected. This design actually turned a challenge into an advantage: the courtyard harvested rainwater, which was stored for household use. The chapter notes that the central courtyard also provided privacy, natural ventilation, and a cooler microclimate. The rooms surrounding it were raised above the courtyard floor level, preventing water from entering them during heavy rain.

Q7 If you had to create a Pan-India Architecture Museum, which ten monuments would you select to represent India's diversity and why?

Model answer — any well-reasoned ten are acceptable. A representative selection from the chapter: (1) Dholavira — earliest urban planning; (2) Sanchi Stupa — Buddhist heritage and earliest monumental stone architecture; (3) Ellora caves — rock-cut architecture bridging Buddhist, Hindu and Jain traditions; (4) Rani ki Vav, Gujarat — water-harvesting stepwell as art; (5) Brihadishvara Temple, Thanjavur — classical south Indian temple at its peak; (6) Dilwara Temples, Mount Abu — Jain marble craftsmanship; (7) Mehrangarh Fort, Jodhpur — Rajput fort-palace tradition; (8) Taj Mahal, Agra — confluence of Persian, Arabic and Indian architectural styles; (9) Bishnupur terracotta temples, West Bengal — regional brick-and-terracotta tradition; (10) Madras High Court — Indo-Saracenic colonial architecture blending Islamic, Hindu and Gothic elements. Together these cover different periods, regions, religions, materials and building types.

Q8 Choose an ancient monument in your region. Identify what type of architecture it belongs to and the markers you used to classify it.

Model answer (adapt to your region). Example: The Qutb Minar complex in Delhi is an example of early Indo-Islamic architecture. Markers used for classification: the tapering minaret of red sandstone with white marble bands; calligraphic inscriptions from the Qur'an; pointed arches and corbelled domes; the reuse of carved stone pillars from earlier Hindu and Jain temples (visible in the Quwwat-ul-Islam mosque's colonnade). These features — domes, pointed arches, calligraphy, jalis, and the blend of local craftsmen's idioms with Islamic structural forms — are exactly the markers of Indo-Islamic architecture described in this chapter. Students should apply the same method: observe the material, decorative motifs, structural elements (dome/shikhara/stupa/minaret), and historical context of their chosen monument.

Q9 Different groups in the class take up examples of different types of architecture in your region. Prepare a small exhibition with brief descriptions. (Hints: Use different sources to get more information. Request your teacher to invite a scholar or expert from your region to interact with you.)

This is a group project activity. Each group should: (1) select a monument or architectural type from the region (temple, mosque, fort, stepwell, haveli, church, etc.); (2) gather information from textbooks, local libraries, the Archaeological Survey of India website, and if possible, a field visit or photographs; (3) prepare a display with a photograph or sketch of the monument, its name and location, the period it was built, the architectural style and its key features, the materials used, and its historical or cultural significance. If a local scholar or expert can be invited, prepare questions in advance. The exhibition should illustrate the region's architectural diversity and link it to what was studied in this chapter.

Q10 Highlight the biggest threats to our architectural heritage today and discuss how can we protect it.

The chapter identifies several threats. Natural causes include earthquakes (which destroyed the upper minarets of the Jama Masjid, Ahmedabad) and monsoon water damage. Human-made threats include air pollution from industries and fossil fuels (which yellowed the Taj Mahal's marble, necessitating a pollution ban in the 1990s), waste dumping and lack of maintenance (affecting traditional water structures), and construction activities near heritage sites. The chapter also notes that many lesser-known monuments suffer from general neglect. Protection measures: government agencies such as the Archaeological Survey of India must conserve monuments; citizens should feel personally responsible — the Constitution's Fundamental Duties ask us to 'value and preserve the rich heritage of our composite culture'; local communities, NGOs, and environmentalists can join hands as they already do for water structures; and students can raise awareness through exhibitions and visits.