



A STUDY OF ANCIENT INDIAN ARCHITECTURAL TRADITIONS AND THEIR CULTURAL SIGNIFICANCE

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Abstract

The architectural tradition of ancient India can be counted amongst some of the most coherent and philosophically unified architectural traditions in the whole of world history, being more than four thousand years old and extending from the planned cities of the Indus Valley Civilisation all the way to the complex temple architectures of medieval times. In this paper, we undertake a thorough examination of ancient Indian architectural traditions from the perspective of their historical and thematic development. We will trace the development of ancient Indian architecture through the periods of Harappan, Vedic, Mauryan, post-Mauryan, Gupta and early medieval eras, and analyse the significant styles that developed through this time period, including Nagara, Dravida and Vesara temple styles, rock-cut architecture, and stupa architecture. The analysis will focus on situating the architectural development of the era within the broader scope of cosmology and religious philosophy and society of ancient India, showing how architecture in the ancient Indian world was not merely a utilitarian nor an aesthetic exercise, but was always an expression of dharmic order, cosmological symbolism, and community spirit. Using textual sources such as the vast Vastu and Shilpa Shastra treatises along with other sources, we will analyse the construction technique, principles of spatial layout, iconography programmes, and regional variations of these architectural traditions. Further we will explore the cultural role of these architectural traditions in terms of their role in religious pedagogical process, political legitimisation, and cohesion of communities, and their influence on the modern Indian architecture.

Keywords: *Ancient Indian architecture; Vastu Shastra; temple architecture; Nagara style; Dravida style; rock-cut architecture; cultural heritage; Indian art history*

1. Introduction

Architecture has a unique role amongst the physical artifacts of ancient Indian civilization. Architecture is an indelible part of any civilizational legacy since it defines the physical spaces in which the activities of worship, governance, trade and even private life take place and, in so doing, embodies the ethos, worldviews and sociopolitical organization of its creators. Thus, the architectural tradition of ancient India, stretching from the third-millennium BCE Indus Valley settlements to the temple cities of the early medieval period, provides us with an exceptionally rich source of information about successive Indian civilizations' conception of the interaction between the built environment, the cosmos and the sacred.

The motivation behind this research is the realization that the history of Indian architecture has so far been researched rather insufficiently and, when it is done, mostly either from purely technical angle as regards structure types and styles or as a purely religious discipline dealing with iconography and ritual function without due attention paid to interdependencies between these two. However, neither building nor architecture as a craft had been dissociated from symbolism and religious meaning in ancient India and was represented by an integral set of building and designing techniques, ritual performance and symbolic significance which is described in Vastu



Shastra and Shilpa Shastra and others. This study thus should take an interdisciplinary approach to ancient Indian architecture bringing together the insights of art history, archaeology, religious and social history of the country.

This paper attempts to answer three main questions. First, how has Indian architectural tradition evolved through history, from the urbanism of the Harappan cities through timber and brick architecture of the Vedic and early historic periods up to monumental stone architecture of Mauryans, Guptas and early medieval times? Second, what have been the distinct features of major architectural styles developed in this evolution, e.g. stupa architecture, rock-cut architecture and Nagara, Dravida, Vesara styles? Third, what cultural purposes have been served by these architectural styles and in what way have they contributed to the establishment and communication of religious meaning, political authority and community identity in ancient Indian societies?

These issues will be covered historically and thematically. Section two will review the relevant scholarly literature on Indian architecture. Section three will outline the objectives, scope and methodology of this study. Section four will examine the historical development of Indian architecture from its prehistoric and protohistoric roots to the early historic period. Section five will analyze major architectural traditions of classical and early medieval periods in more detail, including stupa architecture, rock-cut architecture and temple styles. Section six will discuss the theoretical background of Indian architectural practices as formulated in Vastu Shastra and allied textual traditions along with the materials used and construction techniques practiced by ancient architects. Section seven will assess the cultural and symbolic meanings of Indian architectural traditions and section eight will explore their regional diversity and ongoing legacy.

2. Literature Review

Indian architecture emerged as an object of systematic scholarly investigation during the colonial period as antiquarians and surveyors attempted to classify the monuments of the subcontinent using Western art-historical categories. A landmark study in this context is the one undertaken by James Fergusson which provides a foundation for periodization and stylistic classification of Indian and eastern architecture; although the interpretive framework proposed in this pioneering work was subsequently modified, the documentary contribution to the study of monuments is still invaluable as many of the monuments mentioned by the author have been damaged or lost since. The two-volume work of Percy Brown entitled Indian Architecture (Buddhist and Hindu Periods) and Indian Architecture (Islamic Period) represents the continuation of the documentary tradition as well as the first attempt at a more systematic account of Indian architectural development in terms of structures and styles; it also remains a standard reference for the chronology of Indian monuments.

A shift in the interpretation of Indian architecture can be seen in the works of Stella Kramrisch who attempted to interpret the Hindu temple not as a formally organized object but rather as an incarnation of cosmological and metaphysical concepts underlying Hindu religion. According to Kramrisch, the plan, elevation and iconography of the temple form a symbolic representation of the structure of the cosmos and of the human being, thus providing a foundation for future research in this area. In his introduction to the meaning and forms of the Hindu temple, George Michell succeeded in combining the principles of symbolic analysis with the description of regional stylistic differences and making the principles of temple design comprehensible to wider audience of scholars and general public.

Some of the recent investigations in this area provide a refined understanding of the structural logic and development of temple form. For example, in his investigations of Indian temple architecture, Adam Hardy offers a detailed formal analysis of the transformation of temple superstructures showing that the apparently different styles of regional architecture are based on the same principles of aedicular composition of shrine forms. Similar



contributions to the systematic classification of types of Indian temples have been made by Michael Meister who edited an encyclopedia dedicated to the subject. Vibhuti Chakrabarti's investigation of Indian architectural theory presents an analysis of the Vastu Shastra tradition as a living theory of design and Vinayak Bharne and Krupali Krusche attempt to demonstrate the underlying principles of temple architecture for contemporary practitioners.

Rock-cut architecture in its various manifestations has also been investigated in the field of Indian architecture and culture. Thus, K. V. Soundara Rajan provided an encyclopedic documentation of the cave temples of the Deccan that traced the chronological and regional development of rock-cut architecture from its early Buddhist manifestations up to its Hindu and Jain variants. An excellent comparative overview of Indian architectural traditions has been offered in the history of architecture in India by Christopher Tadgell, whereas Krishna Deva presents a concise regional account of the temples of India. All in all, the current state of affairs suggests that ancient Indian architecture is not to be understood through its formal or stylistic characteristics alone but requires its interpretation in terms of cultural, religious and cosmological contexts.

The present paper is an attempt to synthesize historical, formal and symbolic approaches to the study of Indian architecture into a coherent account, paying particular attention to the cultural functions of architecture as a vehicle of religious pedagogy, political legitimation and communal identity formation – phenomena that are often described separately in the specialist literature but that should be regarded as interrelated elements of architectural culture.

3. Objectives and Methodology

This paper employs a methodology suitable for an architectural history synthesis, with emphasis on the interpretive and qualitative. The following are the objectives of this study: firstly, to chronologically trace the evolution of architectural traditions in ancient India from the Indus Valley Civilisation to the end of the early medieval era; secondly, to identify and analyse the structural, formal, and material characteristics of important architectural idioms during this period; thirdly, to investigate the theoretical and textual basis of Indian architecture with regard to the traditions of Vastu Shastra and Shilpa Shastra; fourthly, to explore the cultural and symbolic importance of ancient Indian architecture in relation to religious beliefs, politics and society; and fifthly, to examine the importance of these traditions to contemporary architecture. The study relies on critical synthesis of secondary literature from the fields of art history, archaeology and religious studies, as well as the relevant textual evidence translated from Sanskrit literature. It should be noted that the paper makes no contribution of new archaeological research or primary literature, but rather contributes to the field by synthesising and interpreting the relevant literature. The geographical scope of the study covers the Indian subcontinent, but will focus primarily on traditions and sites located within the territory of present-day India. The temporal scope is set from the mature phase of the Indus Valley Civilisation, conventionally dated to approximately 2600 to 1900 BCE, to the end of the early medieval period, conventionally dated to the twelfth century CE, when the architectural traditions were radically altered by the introduction of Indo-Islamic political authority and architectural styles that are historically important but are not covered in this study. Methodologically, the paper combines a chronological narration with thematic analysis. Chronological sections provide the background information regarding the development of architecture in the Indian subcontinent, placing monuments and traditions in context. Thematic sections utilise the chronological framework to examine issues of construction techniques, symbolic meaning and cultural significance that transcend chronological boundaries. In this way, this paper avoids the limitations of pure chronological surveys, which tend to overlook continuities of meaning and technique across periods, as well as those of thematic surveys, which tend to ignore the historical specifics of particular developments.



4. Historical Background and Periodisation

The history of Indian architecture is traditionally subdivided into several broad eras, each characterised by specific political, religious and technical features. The following sections briefly outline these eras, establishing the historical framework within which the discussion of later sections takes place.

4.1 The Indus Valley Civilisation

The earliest examples of planned architecture and urban design in the Indian subcontinent belong to the Indus Valley, or Harappan, Civilisation that flourished in the Indus River system and the neighbouring regions between approximately the mid-third and early-second millennia BCE. Archaeological excavations in major urban centres such as Mohenjo-daro and Harappa in modern-day Pakistan and Dholavira, Lothal, Rakhigarhi and Kalibangan in modern-day India reveal a very high level of urban planning, evidenced by grid-based street layout, standardised fired-brick buildings, elaborate drainage and water management systems and zoning of the cities to accommodate different functions of administration, residence and probably ceremonies. The Great Bath at Mohenjo-daro, a large watertight tank made of fired brick and sealed with a bituminous damp-proof layer, is widely considered by scholars to be a testimony to ritual or ceremonial baths, indicating that even at this early period the role of architecture was more complex than purely utilitarian.

While the exact nature of the religion and political organisation of the Harappan civilisation is still a matter of scholarly speculation due to the fact that the script of the Indus civilisation remains undeciphered, the evidence suggests a civilisation with sophisticated administrative skills and shared material culture that extended across a very large area. The standardisation of the size and weight of bricks at distant locations suggests some kind of centralised or coordinated regulation, while the absence of monumental palaces or temples comparable to the buildings found in other contemporaneous civilisations of Mesopotamia leads some scholars to suggest a more decentralised or corporately organised society. No matter what, the achievement of the Harappans in urban planning and municipal infrastructure is a milestone in the history of South Asian architecture, setting a precedent in planning discipline and construction technology that, although not directly linked to later traditions, indicates a very early and sophisticated architectural culture in the subcontinent.

4.2 The Vedic and Early Historic Periods

As the mature Harappan urban phase declined, the archaeological and textual sources for the second and first millennia BCE, or the Vedic period, indicate a predominance of rural and pastoral society whose architectural monuments are relatively modest, involving mainly timber and thatch and mud-brick architecture that has not left many architectural remains due to its relatively impermanent nature. Although much of the Vedic literature deals with ritual and cosmology issues, there are many references to the construction of sacrificial altars or vedis, which, according to their exact geometric measurements, were believed to be necessary for proper performance of the ritual. The Shulba Sutras, which are the later Vedic literature, provide the detailed descriptions of how to construct the geometrical altar, the description including instructions for creating right angles and transforming one geometric figure into another one of equal area.



Thus, the attention paid to such geometric details in the construction of ritual altars is important for further development of Indian architecture, as the principle of the necessity of the observance of certain rules of geometry and cosmology in the construction of sacred structure was established in the Vedic period and developed much further later on within the tradition of Vastu Shastra. The transition from Vedic to early historic period, which started approximately from the sixth century BCE, involved the process of urbanisation of the Gangetic plain, formation of sixteen mahajanapadas or great territorial states and the emergence of Buddhist and Jain religious movements.

4.3 The Mauryan Period

The Mauryan era, spanning roughly between 321 and 185 BCE, was another critical phase in the history of Indian architecture, characterized by the construction of large stone buildings that had not been seen before in the subcontinent. Due to the patronage of the king Ashoka, who became a follower of Buddhism, many stupas, monolithic pillars, and rock-cut caves were constructed in the Mauryan empire. The Ashokan pillars, being usually monolithic sandstone shafts topped with animal capitals, were a great technological achievement and required the skills of quarrying, moving, carving, and polishing of huge stone structures. The capital of Ashoka's pillar at Sarnath, which currently is the national symbol of India, is an example of a high level of the Mauryan craftsmanship.

Rock-cut caves, which were excavated at Barabar and Nagarjuni hills in modern Bihar for the use of ascetics of the Ajivika sect, were the first instances of Indian rock-cut architecture, characterized by very smooth internal walls which raise questions about the instruments and techniques used by Mauryan workers. Also during this period there were constructed some of the earliest stupas, like the core of the Great Stupa of Sanchi, which was enlarged in later years. Mauryan architecture, associated with imperial patronage and spread of the teachings of Buddhism, established the tradition, which was widely developed in the next years.

4.4 The Post-Mauryan and Gupta Periods

In the centuries after the fall of the imperial Mauryan dynasty through to the reigns of the Shunga, Satavahana and Kushan dynasties, further developments occurred in the architectural styles of Buddhism architecture, with the development of elaborate carvings such as toranas and vedikas on early stupas, as illustrated by Sanchi and Bharhut. This period also marks the creation of the first major rock-cut cave complexes in the Deccan and western India region, including the early phases of the Ajanta and Karla caves, where the religious architecture of Buddhism was transferred into the rock cutting technique with great precision.

The Gupta period, which extended from about the fourth to the sixth century CE, is generally seen as marking the development of a distinctive Indian temple architecture in stone after an earlier phase when religious structures were built mainly of timber and brick. The small, yet architecturally and iconographically important temples of this period, such as the Dashavatara temple of Deogarh and the Temple 17 complex at Sanchi, illustrate the essential features of the later North Indian, or Nagara style of temple architecture including the square garbhagriha housing the main deity, flat roofed columned porch and, in more advanced instances, the emerging structure of the superstructure above the garbhagriha. The sculpture of the Gupta period connected with these temples, particularly the fine figural sculpture of Deogarh, helped establish some of the iconographic and stylistic standards for future Indian religious sculpture.

4.5 The Early Medieval Period

The Early Medieval period, stretching from about the seventh to the twelfth century CE, marked the full



development and regional variations of Indian temple architecture, sponsored by the successive regional powers such as Chalukya, Pallava, Chola, Rashtrakuta, Chandela, Solanki and Kalinga rulers, and many more. It was during this period that the principles of temple architecture established during the Gupta period attained its full form in the Nagara style of northern India, the Dravida style of southern India, and Vesara or hybrid style of the Deccan region, each having distinctive style in the treatment of the temple superstructure, plan and sculptures. Some of the most famous buildings of Indian architecture are from this period, like the temple complexes of Khajuraho, Bhubaneswar, Thanjavur, Modhera, and Pattadakal, besides further developments of the major rock-cut excavations such as the later phases of Ellora caves, where there are excavations belonging to Buddhism, Hinduism and Jainism together on a single site.

5. Major Architectural Traditions

5.1 Stupa Architecture

The stupa, consisting of a hemispherical or domed structure housing relics connected to the Buddha or revered Buddhist teachers, is regarded as one of the earliest and most enduring forms of architectural construction in ancient India. The completed stupa consists of a base or plinth known as the medhi, a hemispherical dome called the anda, a small square railing known as the harmika placed above the dome, and a vertical mast called the yashti topped by one or more umbrella-shaped finials called chhatras, symbolizing the hierarchical cosmic and spiritual order associated with Buddhist cosmology. Worshippers performing the act of ritual circumambulation around the stupa, called pradakshina, on the circumference walkway, or pradakshina patha, frequently surrounded by a carved stone railing, called vedika, and entering the stupa via imposing gateways, called toranas, situated at the cardinal directions, most notably as seen at the Great Stupa at Sanchi.

The process of evolution of the architecture of the stupa over time reveals a pattern common to Indian religious architecture where an original simple structural form becomes transformed into a complex structure rich in symbolism and narrative depiction. Carved gateways and railings of the stupa of Sanchi from the first century BCE and first century CE include depictions of events in the life of the Buddha and stories related to his past lives in the Jataka tales, using the aniconic mode of representation in which the presence of the Buddha is represented through symbols like the throne, the wheel, or the footprints rather than through figure representation, a practice that was later replaced by the iconic representation of the Buddha in the Gandhara and Mathura schools of sculpture. The form of the stupa later spread outside of India and served as the inspiration for the pagodas of East and Southeast Asia.

5.2 Rock-Cut Architecture

One particular form of ancient Indian architecture is that of rock-cut architecture in which structures are excavated directly out of the rock itself as opposed to being built up from separate materials. In ancient Indian architecture, there are two kinds of structural forms associated with Buddhism; these are the chaitya hall which is an assembly hall with an apsed-end containing a rock cut stupa situated at the apsed end and the vihara which is a monastery made up of cells arranged around a central hall in which monks live. The chaitya hall at Karla is one of the best preserved examples of such architecture and contains an elaborate translation of timber construction techniques like ribbed vaulting that clearly appears to be based on timber roofing as well as a row of carved pillars and horseshoe windows that light up the stupa inside.



One particular period of rock-cut architecture saw the greatest heights reached in Ajanta and Ellora caves located in Maharashtra today. Ajanta caves that were excavated over two major periods separated by several centuries apart are famed not only for their architectural perfection but also for the existence of an extensive collection of mural paintings depicting Jatakas and scenes from the life of courtiers that provide vital information for ancient Indian painting along with architecture. Ellora caves contain thirty four excavations done under the auspices of different religions like Buddhism, Hinduism and Jainism over several centuries and include the Kailasa temple that was excavated from one rock outcrop in order to create a complete monolithic temple with a shrine, hall and a cloister. The amount of rock needed to be excavated in order to construct the Kailasa temple is estimated to be hundreds of thousands of tonnes.

5.3 The Nagara Style of North Indian Temple Architecture

The Nagara style, mainly found in the North Indian region, is known for its curvilinear tower or shikhara, which rises above the sanctum continuously in a convex form and has a ribbed circular disc finial, called amalaka, and a crowning pot-like finial, called kalasha. The plan of the Nagara temple usually follows a grid pattern, or vastu-purusha-mandala, explained in section six below, and includes spaces such as an entrance porch, ardhmandapa, an assembly hall, mandapa, and the sanctum or garbhagriha that houses the image of the deity, and the most sacred places are situated in the central line, which faces east in most cases.

Variations of regional styles are numerous within the larger family of Nagara architecture. Odisha-style temples, like the Lingaraja temple at Bhubaneswar and the later Sun Temple at Konark, are known for their distinct vertical orientation and shikhara divided horizontally. Temples of Khajuraho, built between the tenth and twelfth centuries under Chandela patronage, are known for their group of smaller spires, urushringas, rising in a unified composition alongside the main shikhara, and an elaborate scheme of figural sculpture. Solanki-style temples of Gujarat, like the Sun Temple at Modhera, have a further regional variation with elaborately carved stepped tanks, kunds, that form part of the temple complex and signify the importance of water in regional architecture.

5.4 The Dravida Style of South Indian Temple Architecture

The Dravida style, which was prevalent in the South Indian region of Tamil speakers, differs from the Nagara style in having a tower with a stepped pyramidal structure, or a vimana, with successive diminutive storeys, or talas, all of which were adorned with miniature shrines and capped by a domical or polygonal roof, called a shikhara, which was relatively small in comparison with the rest of the tower. Another distinctive aspect of the fully developed Dravida temple complex was the placement of a massive gateway tower or a gopuram at the entrance to the wall enclosing the temple complex, which later on, especially during the periods of Vijayanagara and Nayaka rule, became much larger than the shrine tower, making the temple complex a vast walled enclosure with several smaller shrines, pillared halls, and temple tanks.

The evolution of the Dravida style can be traced through various dynastic phases beginning with the initial phases during the Pallava rule when temples were carved out of rocks or erected in stone, including the rathas and the Shore Temple at Mamallapuram and reaching its full potential during the Chola dynasty in the temple of Brihadishvara built under the patronage of Chola emperor Rajaraja I in the early eleventh century. The temple of Brihadishvara, with its vimana reaching a height of more than sixty meters and topped with a massive monolithic capstone, was a significant architectural accomplishment and stands among the most celebrated South Indian temples. The temple served as a major economic centre with large endowments of land, livestock, and personnel recorded in inscriptions related to its maintenance and functioning.



5.5 The Vesara Style and Regional Hybrid Traditions

The Vesara architectural style, which is mainly characteristic of Deccan architecture and specifically of temples that were built by Chalukya and later by Hoysala kings, can be regarded as a combination of the Nagara and Dravida styles of temple architecture. This is demonstrated, for instance, by the temples at Pattadakal, which were built during the reign of the Chalukya kings in the 7th and 8th centuries and where one can find both Nagara and Dravida towers built next to each other, implying an experimental approach to both major architectural styles used in South India at that time. Finally, another development was seen in the Hoysala temples of Karnataka built in the 11th century and characterized by a stellate plan and extremely rich sculptural decoration made out of fine-grained soapstone which provided better opportunities for intricate carvings than stone used in other parts of the subcontinent.

6. Theoretical Foundations, Materials, and Construction Techniques

6.1 The Vastu Shastra and Shilpa Shastra Traditions

The theory underlying ancient Indian architecture is enshrined in a considerable corpus of Sanskrit literature commonly referred to as the Vastu Shastra and Shilpa Shastra traditions, including treatises like the Mayamata, the Manasara, and parts of the Brihat Samhita, among others, written and collected over a long period, spanning from the early centuries of the common era up to the medieval period. The subject matter covered by this literature is rather extensive and includes topics ranging from the choosing and testing of sites for construction of buildings, the orientation and design of buildings according to proportions, proportions of the carved sculpted images, classification of settlements and temples and procedures to be performed ritually at various stages of construction.

At the centre of this body of literature is the vastu-purusha-mandala, an abstract symbolic geometric diagram usually a square divided into smaller squares, symbolising the cosmic being called vastu-purusha lying behind any place of construction. Traditionally, the temple plan would be based on this mandala, with the position of the garbhagriha (sanctum) marked out by the central square in this geometric diagram where the image of the deity would lie, referred to as the Brahma-sthana. This cosmological schema provided a methodology for the translation of metaphysical concepts pertaining to the universe and its relation to the world in terms of the latter's being a reflection of the former into concrete architectural principles of proportion and spatial planning. In other words, the construction of a temple was not considered just building of a physical structure but ritual reconstituting of cosmic order at a specific place.

According to scholars like Kramrisch and Chakrabarti, the role of the vastu-purusha-mandala was twofold. Firstly, it served as a design tool that allowed the establishment of proportions between various elements of architecture and, secondly, it symbolised the cosmos in itself. The combination of these two functions is typical of the Indian architecture and is what differentiates it from other traditions where structural and symbolic aspects are separated.

6.2 Materials and Construction Techniques

The material history of ancient Indian architecture is influenced by two primary factors – firstly, the accessibility of materials in different regions and secondly, the growing capabilities of each period. In terms of the materials used in ancient Indian architecture, the architecture that corresponds to the period of the Indus Valley Civilization relies extensively on the use of sun-dried and fired bricks, which were standardized across different regions with sophisticated brick-lined drainage networks. On the other hand, the Vedic Period and early historic period used timber, thatch, and mud bricks, which were structurally very important but did not leave much archaeological traces.



This is an important aspect in understanding the history of architecture because the absence of any enduring religious buildings does not mean that there was no architectural tradition and religion at all in this era.

The Mauryan era brought the construction of stone monumental structures, where both dressed masonry and monolithic stone carving were employed with some degree of surface polish of the latter type of structure, prompting researchers to investigate into the technique of working with stone of that time. Since the Gupta era, stone and to some degree brick became prevalent in building religious architecture, where sandstone, granite and chloritic schist or soapstone were used based on regional availability and requirements for particular sculptures and structures. Architecturally, the majority of ancient Indian stone structures were built using trabeated or post and lintel method of construction, as opposed to arches and vaults in architecture of other countries. Such an approach defined typical proportions of Indian temples, as well as the use of corbelling to create the stepped or curved profiles of temple towers.

Labour organization and transfer of craft skills used in the execution of large-scale construction projects was done through hereditary guilds of masons, sculptors and architects. Such guilds were mentioned in inscriptions and texts under such names as sthapati, designating the master architect, and shilpin – master craftsman. Economic resources, including land grants, endowments, and revenues, which were mobilized during the construction of temples were documented in inscriptions on temples in South India, and thus can give us an idea about temple construction's role in economy and craft specialization.

7. Cultural and Symbolic Significance

7.1 Architecture as Cosmological Expression

One of the themes commonly encountered in the study of ancient Indian architecture as interpreted by scholars, especially by Kramrisch, is that of the temple as a microcosm of the universe, where the upward trajectory of the shikhara or vimana was conceived as a symbol for the vertical axis that links the earthly and heavenly realms, in relation to the cosmic mountain, Mount Meru, in Hindu, Buddhist, and Jain traditions that is considered as the center of the cosmos. This cosmological aspect was not only a theoretical and literary concept existing outside the design of the actual building, but rather the proportioning system through which the temple is designed ensured the temple to be an effective ritual tool through its geometrical replication of cosmic order.

This function of cosmology includes the experience of the movement from the external world to the innermost sacred space of the temple where the visitor moves from an area of the decreasing degree of sanctity to the increasingly sacred space of dark cave in which the god resides; this is the movement from the manifested external world to the unmanifested internal spiritual world. This aspect of gradual progression of space and experience is illustrated in all traditions of ancient Indian temple architectures, Nagara, Dravida, and Vesara.



The temples themselves were also important institutions of social and economic organization playing the role of agricultural centers of land tenure, job creation and educational institution, as well as being a focus for community religious and social activities which went beyond ritual performances. Redistribution of agricultural surplus through endowments and festival distributions, the employment of priests, musicians, dancers and craftsmen, as well as the management of tanks and other infrastructural projects, make it clear that ancient Indian religious architecture could not be considered without taking into account its social and economic context.

7.3 Iconography, Narrative, and Religious Pedagogy

The numerous sculptural programmes present throughout ancient Indian religious architecture, ranging from the narrative panels of the Sanchi stupa gateway sculptures to the figurative sculpture of the Khajuraho and Hoysala temples, played an instructive role within a society that was largely non-literate, serving to teach worshippers about religious narrative, cosmology, and morality through visual medium in a way that would be comprehensible to illiterate worshippers. This instructional function is clear when considering the representation of the Jataka stories on Buddhist architecture, wherein the past lives of the Buddha are told as moral exemplars, as well as the representation of tales and morals of the Hindu epics and Puranas on the walls of Hindu temples, where worshippers learned and absorbed the narrative and ethical teachings of their religion in the process of ritualistic circumambulation and prayer.

Additionally, the inclusion of secular and courtly themes alongside religious themes, such as seen in the wall paintings at Ajanta and some sculptural programs at Khajuraho, serves to show that the ancient Indian religious architecture had room for a more comprehensive conception of the human experience than just the strictly religious, including courtly and musical themes, and in some cases even erotic ones, as part of a cosmic framework in which all of human experience has its place.

8. Regional Diversity and Continuing Legacy

Whereas the previous sections have concentrated on the continuity in the principle and symbolism behind ancient Indian architectural traditions, it is also important to note that there is much regional variation in the actual architectural manifestation of these principles in the form of a range of regional styles. This regional variation is a result of differences in the availability of construction materials, local climate conditions, patronage by different ruling dynasties and the prevalence of regional religious traditions. As a result, there developed a diverse architectural heritage which was nevertheless united in its underlying principles formulated in the Vastu Shastra traditions. This can be seen not only in the broad division between the Nagara and Dravida styles of architecture but also in more specific regional styles of each of these two traditions, like the unique characteristics of Odishan, Central Indian and Gujarati styles of the Nagara style or the Pallava, Chola and Vijayanagara styles of the Dravida style.

The fact that the ancient Indian architectural principles allow for regional adaptation within the framework of the design tradition provides a very interesting example for contemporary architectural and heritage work, showing how the design tradition can be both coherent at the level of theory and highly diverse at the level of its actual manifestations, dependent on local climatic and cultural circumstances. There are quite a few contemporary uses of ancient Indian architectural principles and heritage, including the continued application of Vastu Shastra principles in the design of modern residential and religious buildings throughout India, the inclusion of traditional vocabulary of temple architecture in new temple constructions in India and among diaspora communities elsewhere and the general influence of Indian architectural aesthetics on architects who try to create a regionally sensitive modern architectural tradition.



At the same time, the sites of ancient Indian architecture play an important role in the contemporary Indian cultural heritage sector. Quite a number of monuments mentioned in this essay, including the Sanchi stupa complex, Ajanta and Ellora caves, the Khajuraho temples and the Brihadishvara temple at Thanjavur, are included in the UNESCO World Heritage List as monuments of outstanding universal cultural value and important religious pilgrimage and cultural tourism destinations. The current conservation and management of these sites poses many interesting contemporary challenges, some of which are beyond the scope of this paper but still show the contemporary importance of the architectural tradition described in it.

9. Discussion

Analysis of the historical background and thematic aspects considered in the present paper supports the following conclusions about the nature of ancient Indian architecture in general. First of all, the evolution of Indian architecture starting from the Indus Valley Civilisation urban planning, then continuing through timber and brick buildings typical for the Vedic and early historical periods and ending with massive stone architecture characteristic for the Mauryan, Gupta and early medieval periods represents not a constant progress, but a sequence of periodic transformations, each of which was caused by major shifts in political consolidation, religious development and economical/craft mobilisation. For instance, the development of massive stone architecture under Mauryan patronage can be explained not in the technical sense, but due to certain religious and political factors related to Buddhist patronage of Asoka. In addition, the formation of regional temple styles in early medieval India has to be interpreted taking into account the political consolidation and religious patronage of regional dynasties of that period.

Secondly, the analysis made in section 5 to section 7 supports the interpretation of structural form and symbolic meaning as two inseparable features of ancient Indian architecture, an inseparability of which has been expressed particularly in the concept of vastu-purusha-mandala and in the role of the mandala in creation of the proportional system and cosmological meaning of the temple. This conclusion has important methodological implications for the discipline of the architectural history since it means that purely formal or stylistic analysis, although it is very important for dating and attributing of ancient Indian monuments, cannot provide complete explanation of their significance for the societies producing them and should be complemented by examination of religious and social context of architecture.

Thirdly, the analysis of cultural functions performed by ancient Indian architecture reveals that major monuments worked at several levels simultaneously as ritual instruments, didactic media, political statements and economic institutions. This multivalence can explain the amount of resources historically invested in these buildings and also explains why they still are active sites of worship, symbols of cultural identity and economically important monuments in contemporary Indian society.

One of the limitations of the current research is connected with the fact that it is based on the synthesis of existing secondary literature and does not include original archaeological or epigraphical work. It means that some unresolved questions of Indian architectural history, such as the religious function of Harappan urban planning or chronology of some rock-cut monuments remain unresolved in this paper. The geographical and temporal scope of the paper has also required selection of material and consequently there is a number of regions and individual monuments not included in this work because of the lack of space, including Himalayan architecture, architecture of Pala and Sena dynasty, early Jain temple architecture in Rajasthan and Gujarat. It might be interesting in future to expand the comparison to these regions, or to make a case-study of individual monuments within the framework of the interpretation created in this paper.



10. Conclusion

The development of architectural tradition in ancient India from the urban architecture of the Indus Valley Civilisation to the elaborately developed regional temple styles of the early medieval period has been explored through the theoretical underpinnings, techniques of construction, and cultural functions associated with this architectural tradition. Ancient Indian architecture should be considered an integral system of knowledge where such aspects as structural technique, cosmological symbolism, religious education, and social and political function were inseparable parts of architecture that were expressed theoretically in Vastu Shastra and Shilpa Shastra traditions and manifested practically in the various regional stupa, rock-cut, and temple architecture studied in this paper.

The cultural function of this architecture tradition was not limited to its initial religious purpose only; it was also related to the legitimization of political power, organization of regional economy and social life, and religious and moral education of a largely illiterate population. This multi-faceted function explains both the great amount of resources invested historically in the creation of monumental architecture and its continuing importance in the present-day Indian architectural, religious, and cultural life. Diversity of regional architecture presented in this paper, namely Nagara, Dravida, and Vesara styles with their specific regional subtypes, proves the ability of the underlying Vastu Shastra tradition to accommodate a wide variety of local adaptations without losing its coherence in terms of cosmological and proportional principles, and this is an important lesson for modern architects and heritage professionals.

To conclude, the research of ancient Indian architectural tradition is not only an example of stylistic development in the history of art; it is also a case of the historic integration of technical, religious, and social knowledge in one coherent architectural practice and a heritage of monuments that remain active sites of religious practices, cultural identity, and historical memory in the modern Indian society. Multidisciplinary research combining the methods of archaeology, art history, religion studies, and conservation science is still necessary in this field.

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