



Research Article

CONTRIBUTION OF BUDDHISM IN ARCHITECTURE OF INDIA

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ABSTRACT

Buddhism is a religion having its origin in Indian soil, which cherished and spread to different parts of the world. With the decease of Lord Buddha different forms of Architectural structures were erected to mark the burial place for Buddha and create a place of worship for followers of Buddhism. These structures were built using traditional material like mud, burnt bricks and stone which has close resemblance to Hinduism and Hindu Architecture as far as choice of material for construction is concerned. The Buddhist Architecture received recognition with development of places of worship which were more ornate and built forms as large domes with cardinal entrance points. Basically three important types of structures were built and used by followers of Buddhism namely Stupa, Chaitya halls and Viharas. Stupa were erected to preserve relics (leftover) of Lord Gautama Buddha, Chaitya halls were large congregational spaces meant for group prayers and worship which some times housed stupa, Viharas were monasteries constructed of bricks or excavated out of rocks where monks stayed and studied in cells built for them. This paper attempts to study how the origin and growth of a new religion, lead to evolution and development of new types of architecture in India. Such an assessment will help to ascertain relationship between structural-form development and with growth of religion and impact of religion on architectural development. This paper is a part of larger work aiming at studying and establishing relationship between architectural development and growth of religion with simultaneous impact on architecture of that era.

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INTRODUCTION

Buddhism is a religion and philosophy having its root deeply planted in Indian soil. It began with the life of Shakyas Prince Siddhartha Gautama (c.a. 563-483 BCE) in 3rd century BCE. He left his home and family in search of the reasons behind suffering and truth or ultimate goal of life. The sacred and important places in India connected with four principal events of Buddha's life viz. birth, enlightenment, first preaching and decease are Lumbini, Bodhi Gaya, Sarnath and Kashi respectively. When Buddha was cremated his ashes kept in casket, were distributed to tribes and stupas were built over to keep the relics. In the early stages stupas were simple structures made out of brick and mud.

Evolution of Buddhist Architecture in India

Buddhist Architecture evolved parallel to Hinduism with the development of various symbols representing aspects of Buddha's life. The Buddhist Architecture received recognition with Indian emperor Ashoka establishing Buddhism as state religion of his large Magadha Empire and opted for the Architectural monuments to spread Buddhism in different parts.

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The places of worship became more ornate and built forms were domes with cardinal entrance points. The structures that were erected had close resemblance to Hindu Architecture. The Hindu temple at that time followed a simple square plan, surrounded by ambulatory passage covered with roof supported on column, with sacrificing area in front. The intricate decoration and identifiable dome of stupa gave it a new identity. Thus stupas were differentiable form a traditional temple form in India. Buddhism spread to various countries from India and the stupas took various forms when these structures were erected/ constructed there.

The Buddhism was divided into two sects (**Fig.-I**). Initially Buddhist monks lived nomadic life in poverty and survived by begging. They were not allowed to erect shrines, acquire property or deify the Buddha. This form of Buddhism was called as Hinayana or the "LESSER VEHICLE". Thus structures were temporary and symbols representing Gautama Buddha were used. Idols were not used for worship during this period (2nd Century BC to 2nd Century A.D.). Later on Buddhism began to receive royal patronage and its practitioners became more diverse, a more monastic and populist form of Buddhism, known as Mahayana (or THE GREATER VEHICLE) emerged that required the established of institutions where monks could live and study.

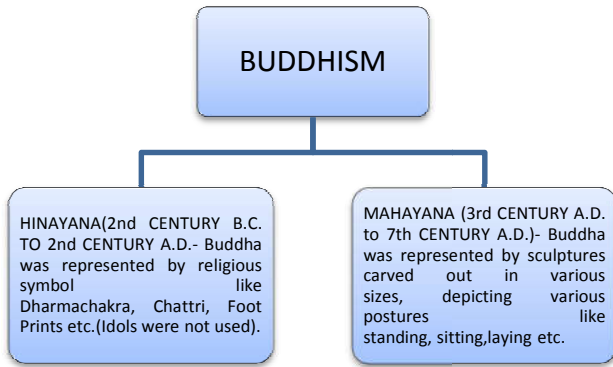


Fig 1 Two Sects of Buddhism

Three important types of structures evolved and used by followers of Buddhism, are Stupa, Chaitya and Vihara. Stupas were built to preserve relics (leftover/ashes) of Lord Gautama Buddha, Chaitya halls were large congregational spaces meant for group prayers and worship which housed stupa inside. Viharas were monasteries constructed of bricks or excavated out of rocks where monks stayed and studied in cells built for them.

Evolution of Three Built Forms

Stupa evolved from the need for a place to bury the relics of Lord Buddha and became an icon to represent Buddhism. These funerary mounds carried object of worship, having sacred value. With the spread of Buddhism and increase in number of follower, need for a separate building was felt to accommodate Stupa and provide shelter (from sun, wind and rain) to followers, so that they can perform their religious rites. This requirement gave birth to Chaitya Halls. The trend of worshipping a built form or religious symbols representing Gautam Buddha may have given birth to practice of Idol worship (initially there was no idol) and temples were built as places of worship in Buddhism. Constant presence of devotees aroused the need for a place where priest/followers/monks can stay and worship at regular intervals. This requirement may have given birth to Viharas or monasteries. The evolution of three structures has been shown in fig. – 2.

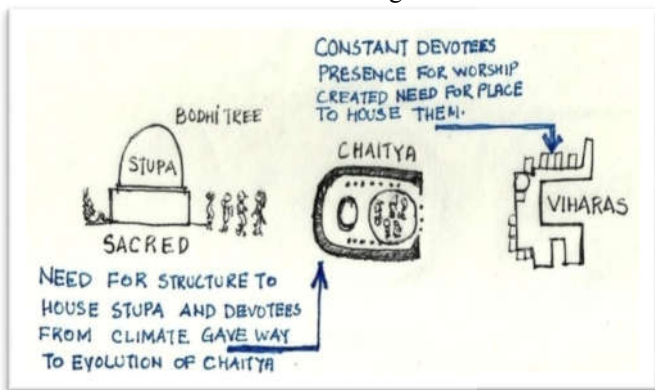


Fig 2 Evolutions of Built Forms

In the early construction of Buddhist structure traditional building styles showing influence of Hindu Architecture and local material were used. The mode of decoration and addition of new elements such as entrance gate or Torona to make the Stupa Grand began because of increased support to this new religion set the buildings apart. The basic Buddhist temple, had an entrance with a circular plan. The spherical or sphere over a cylinder was easily identifiable in every form of evolution.

The three important contribution of buddhist architecture are detailed below

Stupa

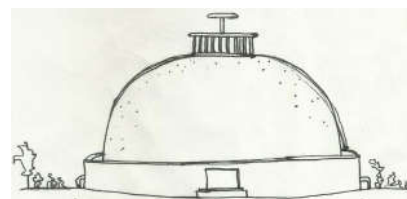
Stupa originated as a piled up burial mound symbolizing the decease (parinirvana) of Buddha. It became a cosmic symbol in response to a major human condition: death. After the decease of Buddha, stupas became an important object of Buddhist cult worship housing the relics of Lord Buddha. The plan, elevation and section of Stupa are derived from circular form. Stupas are physically composed of the four elements- earth, air, fire and water. Stupas were categorized into following three types:-

- i. To enshrine the body relics(Saririka)
- ii. The personal effects (paribhogika) of Buddha and Buddhist Saints.
- iii. To commemorate sports and events of religious significance(uddesika)

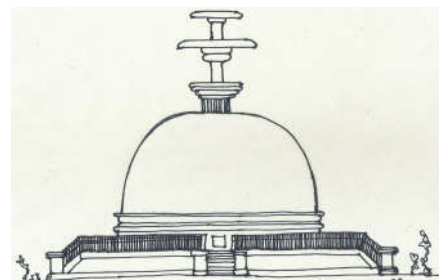
The shape of the stupa represents the Buddha, crowned and sitting in a meditation posture on a lion throne. His crown is the top of the spire; his head is the square at the spire's base; his body is the vase shape; his legs are the four steps of the lower terrace and the base is his throne



Mauryan (3rd Century B.C.E.)



Indo-Greek (2nd Century B.C.E.)



Indo-Greek/Indo-Scythian (1st Century B.C.E.)

It was built in form of a spherical dome (anda), rose on one or more terraces and surrounded by a railed pavilion (harmika) from which rose the shaft of the crowning umbrella (chhatra). There were four gateways oriented in four cardinal directions known as "TORANAS". The stupas had one or more circumambulatory passages (pradakshina-patha) which were hemispherical in shape with low base. The various phases of stupa are shown in fig. – 3.

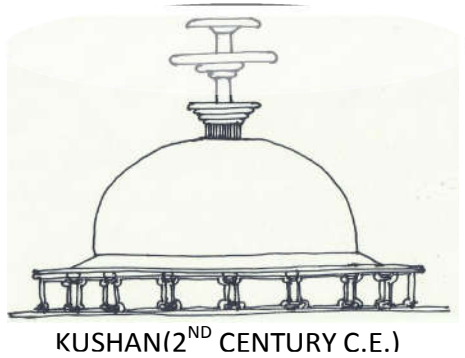


Fig 3 evolution of stupa

As Buddhism developed the stupa became more of a general religious symbol, an object of worship. Less emphasis was placed on the stupa as purely a site of interment. Moreover there was an increase in both general support and the funds available for construction.

Chaitya Halls

The word Chaitya is believed to have originated from word Chita i.e. ashes symbolizing the ashes worthy of worship. The original Chaitya hall of worship or shrine of worship may have been in form of a wooden shed with thatched roof and a small stupa at one end. But during monsoon season this proved to be inadequate, to shelter large congregation. Moreover thatches as building material were not durable. Thus need must have been felt to build large and permanent structures for shelter. The natural caves that were available initially have been used in unfinished state for prayers and performing other rituals. Later on demand based on specific requirement must have given birth to rock cut Architecture and initiated a new trend in Architecture of India.

Chaitya halls for worship were built either of bricks or chiseled from rocks. The construction process must have started at the ceiling level and moved down, thus eliminating the need for scaffolding and shuttering in the initial stages. Many Categories of workers and skilled professionals may have been employed in the process, rock cutters who did the initial removal of the rocks, masons who executed the more precise cutting and sculptors and polishers who performed the final finishing.

The Chaitya hall is a vaulted congregation hall with one end containing a stupa (cut out of a living rock).The hall is divided longitudinally by a double row of colonnades into a central nave with two side aisles. The elementary form of plan is derived from the sudama cave at Barbar with some modification and establishing a stupa with in. These Chaitya halls in stone are copies of timber structure workmanship which is evident from the design adoption in rock, of many patterns and devices peculiar to wood architecture.

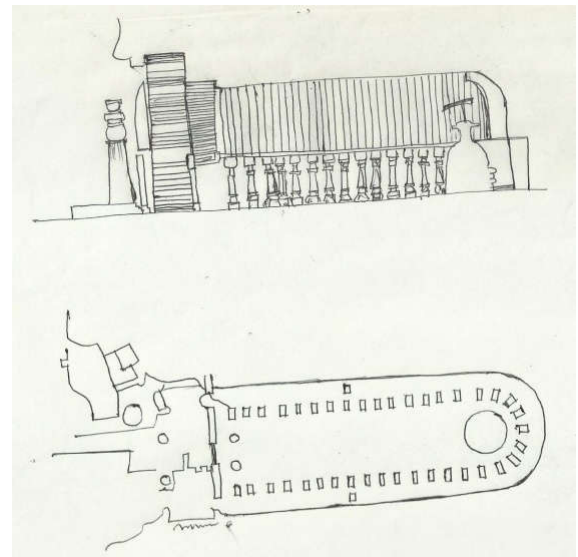


Fig 4 (a & b) section & plan of a chaitya hall, karli

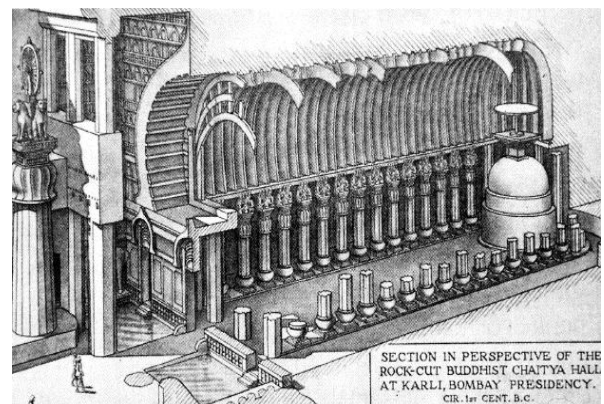


Fig 4 c View of Chaitya Hall, Karli

The most attractive and carefully designed part of Chaitya hall/shrine is the façade which consists of a screen with a doorway or doorways below and a prominent arch window above through which light is admitted into the hall. The façade is relieved with designs of arcade and railing. Occasional sculpture and in some cases a front portico or vestibule is attached to it.

Viharas

Viharas or monasteries were constructed with brick or excavated from rocks. The main hall was approached through a door way, leading to an assembly hall, dinning hall and meditation chamber or prayer hall as shown in fig - 5. These monastic buildings were self contained units consisting of chambers and a Chaitya hall attached to a stupa- the chief object of worship. The chambers were used as dwelling (living) units for the monks. They had platforms cut out of rock, which was used as bed. The columns of Viharas were ornamentally carved. Designs of all Viharas were not same. Stone was opted because of its permanency. In the early stages, these Viharas were simply dwelling units for monks erected out of thatch and bamboo, generally on trade routes. Taxshila and Nalanda are best examples. Later on after 1st century A.D. these Viharas transformed itself into educational Institutes. The walls of Viharas were covered with paintings depicting stories from life of Lord Gautam Buddha. Some of the important Buddhist Viharas are Bagh and Badami.

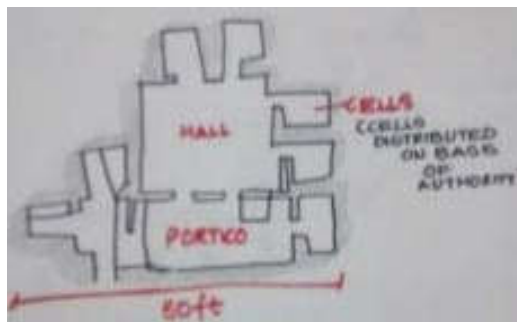
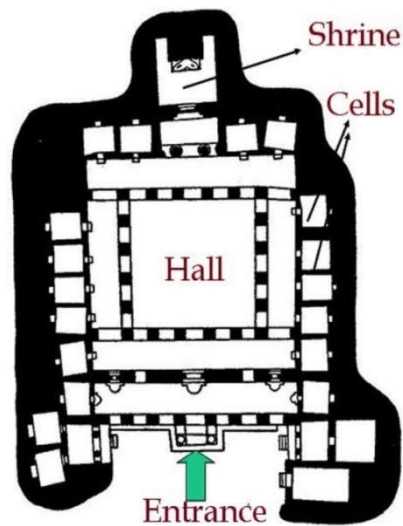


Fig 5 Typical Plan of Vihara

CONCLUSION

Thus Buddhism has significant impact on Indian Architecture by contributing Stupa, Chaitya and Viharas. King Ashoka spread this religion to various parts of his kingdom and erected some great monuments in rocks which stand till date. Other than the Stupa, Chaitya and Viharas, Sthambhs or pillars were also erected popularly known as Ashokan pillar in different parts of India. These pillars had inscriptions in Prakrit language, inspired from the life and teachings of Gautam Buddha. Hence growth and development of Buddhism gave way to some of the finest structural monuments and development of magnificent educational institutes in Indian History.

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