
Research Papers



**'Buddhist architecture and Environment '
A Paper for International Seminar on
' Buddhism past and present '**

Dr. Swati Kalbhor
Pune.

Abstract

Environment always played an important role in architecture. Worldwide architecture is influenced by surrounding environment. The geographical conditions, availability of material are the physical things to influence. Social concepts, religious beliefs, cultural aspects have also played a significant role in architecture. That is why different parts of the world have different kinds of architecture. As the world started coming together, the architecture of all the nations started influencing each other.

Now we can see that characteristics of two or more forms are getting combined and with that emerges a new kind of architecture. Globalization has become a main impetus to influence architecture. So all over the world we observe that architecture has become stereotype having similar style of construction and using similar material which leads to global warming.

Ancient period was the period when every region had its own speciality in architecture. Different regions had their different material, different vernacular styles. Buddhist architecture in particular showed great regional diversity. We can see an overall impact of socio-cultural, religious and geographical environment through Buddhist architecture and art. Environment doesn't mean merely natural environment, but the relations and impact of mankind and nature or the way nature is used by mankind. An analytical study of the history of Buddhist architecture is bound to throw a floodlight on the cultural life of

Buddhism.

The subject matter of environmental history have many compounds-

1. How we use nature. This includes the environmental consequences of socio-economic activities resulting from increasing population, more effective technology and changing patterns of production and consumption.

2. How we think about nature, the way our attitude, beliefs and values influence our interaction with nature i.e. the influence of myths, legends, ideology, aesthetics, religion and science.

Here we can see that Buddhist architecture and art definitely express these things.

Buddhists are spread all over the world and so is the Buddhist architecture. When we refer to Buddhist architecture, here we include only religious monuments, Buddhist architecture in Ancient India was a good combination of traditional structure and modern concepts of the

time. The principle contributions made by Buddhist architecture and art of the time were these six. (1) a series of edics inscribed on the rock (2) a number of tumuli or stupa (3) certain monolithic pillars (4) several monolithic accessories to shrine (5) the remains of vast palace (6) a group of rock cut chambers.1 Among them that more directly affected the course of art of building were the stupas.

Buddhist architecture nowadays can be seen through Stupa, Vihara & Chaitya gruha. Stambha and Caves are also of great importance.

Stupa- Word stupa is derived from the root stup, meaning to heap and suggest the mound shape and method of construction of these editices. 2

The initial function of a stupa was the veneration and safe guarding at the relics of the Buddha. They evolved into large hemispherical mounds with features such as

the Torna - Gateway

the Vedica - Fence like enclose

the Hermika - A square platform with railings on the top of the stupa.

and Chatrayashti - The parasol or canopy.

Sanchi, Barhut, Chaukhandi, Deorkothur, Dhamek stupa at Sarnath, Vaishali, Nalanda, Rambhar are some of the welknown stupas. Stupas show the diversities in shapes but unity in technique and purposes. The original models for stupa were those raised in brick and stone. The well preserved early stupas at Sanchi and elsewhere show that the drum and dome were constructed solidly and the capital and umbrella were later added as separate pieces in stone. 3 The forms of the later two items happen to be copies of wooden models, so it can be presumed that originally these parts were in wood only.

Vihara – Vihara is a simple dwelling for monks and nuns. When it is raining outside. Buddha prescribed five kinds of abodes for the monks. Viz Vihara (monastery). Addhyoga (Pinneled house), Pasada (Big building), Hammiya (Attic) and Guha (cave). The term Vihara was generally used in the sense of monastery. 4

In callavagga there runs a verse highly praising the gift of viharas for the monks.

“ To meditate and obtain insight in a refuge and at ease.

A dwelling –place is praised by the Awakened one as a chief gift to an order.

Therefore a wise man, looking to his own weal, should have charming dwelling places built so that those who have heard much can stay the

rain”. 5

From the above it is apparent that Buddha realizing the hardship of the monks during the rains permitted them to reside in the Viharas.

Viharas or the Buddhist monasteries became important religious and cultural centres. With their modest inception even during the lifetime of Buddha viharas were important . Such monastic establishments grew up in abundance throughout India. Emergence of such a large number of viharas in the subsequent period was possible due to the primary need for residence of innumerable Buddhist monks and nuns. In a later period however these were transformed into educational institutions and still later as grand monastic Universities.

Viharas consist of a quadrangle surrounded by a verandah on to which open simple square cells. Adjacent to this cloister was the courtyard containing main stupa which was usually crowded with smaller votive stupas. Communal rooms like dining halls and kitchens adjoined the cloister as the site allowed. The monastery at Nalanda which flourished in the 7th and 8th century A.D. represents the last phase of great size, it became a Buddhist University. There are rock-cut viharas adjoining some of the chaitya caves notably at Bhaja (2nd century B.C.) they consist of a simple group of cells without adornment.

Chaitya – Chaitya derived from Sanskrit word chita or a sacred spot.

The traditional chaitya was a grove of trees in the middle of which small tumuli of earth had been built up over the ashes or relics of the Buddha 6. Buddhist monks instead of wandering and begging for alms started settling down around such chaityas. Monks in viharas erected stupa along with viharas also called Chaitya Gruha. No free standing chaitya of any importance remain but rock- cut examples at Bhaja, Nasik, Karle, Ellora and Ajanta show clearly the form of original structures.

The plan consists of an apsidal ended hall with closely spaced pillars at each side, forming aisles or ambulatories. A stupa shrine is placed in the apse, farthest from the entrance. The roofs are semicircular in section and ribs represent the original timber members of the prototypes are cut from the rock. The fascade normally contains above a low entrance portico, a horseshoe shaped window filled with rock-cut or wooden tracery which admits light to the interior.

In accordance with changes in religious

practice, stupas gradually incorporated into chaitya gruhas. These reached their high point in structure. The Mahabodhi Temple at Bodh Gaya is wellknown example, for it.

Stambha -These are monumental pillars standing free without any structural function with circular or octagonal shafts. Inscriptions were carved on the shafts. The capital which was usually persepopolitan in form was bell shaped and crowned with animal supporters bearing the Buddhist chakra or wheel of the law. The Ashoka pillar consists of four components : A lotus at the base, a circular abacus carved with an elephant, a bull, a horse and a lion separated from one another by a wheel and four lions set back to back over the abacus. This capital is the emblem of the Republic of India.

Caves – The caves are good examples of rock cut architecture. The structural significance of the rock cut chambers is their technique. Rock cut architecture was a new element in western India. If we keenly observed it is indicative of gradual progress in the technique of rock cut architecture in various other aspects too. It was not just the emanation from conventions of wood architecture. Western India is a region having a climatic situation different from that of North India. The architectural productions of this region required slightly different forms to suit to the heavy rainfall and hot summer conditions prevailing here. It appears the western Indian architects adopted their own formulae, by making innovations like verandahs, rough screen walls in front and such other items. The introduction of these items appears to have taken place gradually through continuous experiments. This process of architectural adjustments to suit local environmental conditions is also value for chronological reconstruction.

These were the different Buddhist religious architectures. The religion's socio and political importance is clearly reflected through this. The way these monuments are constructed are mainly society oriented for instance the stupas were located on trade routes. The period in which roads were passing through forests and secluded places, these stupas were of great support and shelter for travelers and merchants. Sanchi stupa was located on 'Dakshinapatha'. Karle was on the major ancient trade route running eastward from the Arabian sea into the Deccan. Bamiyan Buddhas were located on the 'silk route.' The travellers can easily make out the highlighted white washed and colourful prayer flags stupas on the horizon.

Viharas were for monks to practice their meditation. They were situated in forests or in quiet secluded places, of course later on they became crowded educational centers.

These Buddhist monuments here always been supported by kings, nobles, merchants and common people. The records of the gifts to the various Buddhist monasteries may be found in many inscriptions available through out the length and breadth of this country. Financial support for the construction as well as maintenance of these monasteries was considered as a sacred duty. All the kings, nobles, merchants were not necessarily Buddhist. But we can see the secularism and social harmony through this.

At karle, from inscription we learn that this cave monastery was excavated by one Bhutpala a merchant of Vejayanti. The inscription ran as follows : “ Rock mansion established by Bhutapala, setthi from vejayanti, the best in Jambudvipa.”⁷ At Sanchi, through the inscription on pillars, we learn, the merchants in nearby villages helped in erecting the monument. They are 'Balmitra, the pupil of Yachuda, or 'Nagapiya of kurana'⁸ In another epigraphic record it is found that Rsabhadatta made the gift of revenue of a village to monks of karle. An inscription in later age recorded that instead of temporary vassavasa the monks began to permanently settle down there and donation was made of a village to a Buddhist order by the Satvahana monarch Pulumayi in his seventh regnal year desiring if for repairs of lenas. There were no barriers of religions. People of all religions used mix with each other and used to donate irrespective of the thought of which religion they belong to.

Not only Buddhists but people from other religion visited stupa as they used to visit temples. They used to donate 'Daxina' in the temple and offer to the monks with same spiritual thought.

We can easily see the impact of geographical and natural environment on Buddhist architecture. Specially the art on this architecture proves it. The pillars of the monuments are enriched with sculptures on it. The art which is found in various caves is also enriched with the sculptures and paintings. Caves of Ajanta, Ellora, karle, Bhaja, Nasik, Bagh are full of this kind of art the artefact derived from this art are related to the nature. They are full of human emotions and human nature relationship.

The name of cave no 3 of Bagh caves itself is Hattikhana we can see so many

paintings of elephants and lions.9 Statues of Makarvahini on the door of cave no.4, cave no 2 is famous for Bodhisattvas statues and wall paintings.

The walls, the ceilings and the pillars of nearly all the Caves of Ajanta were once decorated with paintings. The paintings depicted primarily scenes from the life of Buddha and the Jatakas, but many of them were of a secular nature too. 10 carvings of Padmapani Bodhisattva, men and women flying, sitting on the back of elephant are there in cave no 4 of Ajanta. In chaitya hall of Karle on each side were fifteen monolithic pillars with kalasa bases and bell shaped capitals surrounded by kneeling elephants and horses with men and women riders. Torna of Sanchi stupa is the most beautiful example of artefact.

If we see the pictures from the paintings or the designs from the sculptures, there are animal species like the lion, horse, bull, stag, elephant, crocodile, tortoise, fish, and birds like geese, peacocks etc. There are fruits and flowers, creepers and symbolic trees like chaitya vriksha, Asvattha, Pipal and others. Among animal designs the elephant was the most popular one, lotus are painted there in many forms. 12 Through all these and many more examples we can see the impact of natural and physical environment on art and architecture.

There are series of Jatak kathas and stories from life of Buddha. These stories can be interpreted as a form of Literature. The stories are carved horizontally on lintel or on crossbars or vertically on pillars. Here, alongwith art we can see the harmony of nature and human life.

It reflects the religious environment and religious thoughts of the society. The carvings give good moral messages which stand whole forever for the humanity.

References

1. Brown, Percy, Indian architecture (Buddhist and Hindu),
D. B. Taraporevala sons and co. Pvt. Ltd. Bombay. VII the reprint. 1976. p. 8-9
2. The cultural History of India, VOL VI, Ed. Prijadranjan Ray & sen S. N., Pub. The Ramkrishna Mission institute of culture, Calcutta, first ed. 1986, reprint 1991, p. 212
3. Grover, Satish, Vikas Publication house . - The architecture of India Buddhist & Hindu. p. 93.
4. Barua, Deepak, Viharas in Ancient India, Indian Publication Calcutta. 1969, p. 9
5. Cullavagga, vi, 1.5 : Harner, I B, The book of the Discipline, Vol VI p.206
6. Grover satish, The architecture of India,

Buddhist & Hindu, Vikas Publication house, 1940, p. 46.

7. Archaeological survey of western India, vol IV, from Barua, Deepak, Viharas in Western India 1982, p. 90.

8. D Wivedi, Sunita, Buddhist Heritage Sites of India, Rupa & co., New Delhi, 2006, p. 139

9. Marathi Vishwakosh, no. 11, Maharashtra Rajya Vishwakosh Nirmitee Mandal, Mumbai 1982, p. 364

10. Barua, Deepak, Viharas in ancient India, Indian publication, Calcutta, 1969, p.72

11. Designs and motifs in Indian Art, by Sahitya Samsad IIIrd enlarged print Jan 1998, Calcutta, p. 7-8.