

CHAPTER – 3

DEVELOPMENT OF STUPA ARCHITECTURE IN INDIA

The study in evolution of Indian Architecture especially of Buddhist Architecture has attracted the fascination of scholars from throughout the world. The earliest man made structural dwelling in the country are residential structure meant for habitation, secular and are reported from the early phase of proto-historic period. The religious buildings came in to existence with the growth of religious pantheons. In the history of Indian civilization Buddhism, which besides being one of the oldest religions, has been a way of life and a socio-cultural system. A myriad variety of architecture was conceived, patronized and constructed by the Buddhists throughout the length and breadth of the country. Of these, Stupa architecture occupied a very important place. The Stupa architecture in its origin, evolution and structural arrangement remains an exciting architectural phenomenon. The reasons very aptly quoted by Susila Panth (Panth 1976: xi) in the following words:-

“Probably in no other religion, except Buddhism, a particular Structure has been recommended by its founder either for the worship or for commemoration or as a means of salvation. It is the Stupa that has been commended by the Tathagata himself. It is, therefore, not only religious but it symbolizes the presence of the lord, though without any icon. Bit it creates the same sense of reverence and fear in the minds of the people and similar reaction as found in the Brahmanical practices of idol worship, but, at the same time, it avoids all the formal ritualistic performances of the latter. It epitomises the essence of Buddhism and suggests the path to Nirvana. It satisfies the psychological urge to worship, and, simultaneously stands for a crusade against ritualistic and cult-image worship. It is in this respect that it is a ‘magic instrument.’”

The word Stupa is mentioned in the *Rigveda*, *Atharvaveda*, *Vajasaneyi Samhita*, *Taittiriya Samhita*, in the *Panchavimsata Brahmana* and the Monier-Williams Sanskrit-English Dictionary

which says it a “knot or tuft of hair, the upper part of head, crest, top, summit, a heap or pile of earth or bricks etc.”

Rigveda refers to a Stupa raised by the King Varuna above the forest in a place having no foundation (*Rigveda*; verse 28). The word ‘estuka’ is also used in the same sense in *Rigveda*, probably by then anything raised on the ground like a heap/pile might have been known as Stupa. However the Pali word ‘*thupa*’ is quite similar to the term ‘Stupa’. *Thupa* means a conical heap, a pile or a mound or a conical or bell shaped shrine containing a relic (Panth 1976:3).

The word tope for Stupa was first introduced into English by Elphinstone in his account of the tope of Manikyala in the Rawalpindi District in the year 1839: ‘Tope is an expression used for a mound or barrow (hill or hillock) as far west as Peshawar...’ (Tucci 1988: p-ix); (also see Mount-Stewart Elphinstone, Account of the kingdom of Caubool, 2nd ed., 1.108, cited from Hobson-Jobson 1903:934-935).

Benisti Mireille very aptly states-

“the Stupa’s profile is extremely varied, depending on the epoch and country, but it is always recognisable, as if it has conserved within itself, through all its transformations, something permanent which characterizes it. Object of worship and veneration, center of attraction of the pious people, solemn or familiar, it carries within itself, a part of history and Buddhist doctrine: it is a sign and a set of signs”.

The Stupa is so linked to the Buddhistic life that they were not content to erect monuments alone: sculptors represented them on stones, and we find them abundantly represented on panels on the Stupa monuments itself, on the railings-balustrades surrounding it, on cave walls, structural, monolithic made out of varied material starting from clay, stone, wood, ivory, metals, terracotta etc. the study material is abundant and spreads over time and space.

The studies of the *Mahavastu*, *Divyavadana* and *Kriyasamgraha* have helped to evolve a chronology of the figurative Stupa in India from the second century BCE to fourth century CE, thus enabling us to step ahead in our knowledge of the indispensable monument of Buddhism.

According to M. Sivarammurti Stupa is regarded as a monument for veneration. But as Stupa seems to be associated with votive and commemorative and offering purposes; moreover Stupa was related to the ritualistic and commemorative with sectarian, affiliation with school of philosophical obligatory and was bound by aspects of social-economic life. The Buddhist texts like the *Avadana Satakam*, *Mahavadana* and *Stupavadanam* mentions about the commemorative aspects of the Stupa even the Jaina literature like *Raya Pasenaiya Sutta* refers to it. Probably in the later period, due to deep desire of the common mass to worship the lord for the sake of salvation, Stupa acquired its votive character as well. Early Stupas were devoid of art maybe since Ashoka’s time Stupa

architecture acquired prominence in the socio cultural life of the country and art began to develop around the Stupa structure.

According to A. Cunningham, Maisey and Foucher the remains of the Stupa found at Sanchi can be classified into three categories (Cunningham1847:473)

1. Religious edifices or Stupa dedicated either to the celestial or the Adi-Buddha or to the mortal Buddha.
2. Funeral Stupa erected over the relics of mortal Buddha or over his disciples.
3. Stupa for commemorative Buddha.

Satapatha Brahmana mentions of raising a mound on the burial ground after cremation. The burial mound for the *Devata* should be square in shape. In the Jaina and Brahmanical texts in some places Stupa is termed as chaitya. In the *Vedic*, Post *Vedic*, Epics, Jaina and Buddhist literatures refers to the existence of *chaitya-vriksha*. These were mostly treated as sacred places but were not necessarily associated with burial.

It is doubtful if any Stupas were erected during the life time of Buddha. Since he had declared that it was inappropriate to erect Stupa to enshrine his bodily remains while he was still alive, however the legend says that the Buddha gave a few strands of his hair (*kasha asthi*) to the merchants Tapassu and Bhallika, who had offered him the first meal after his enlightenment at Bodhgaya. They were said to have erected a Stupa over the hair relic so as to venerate them. Burmese Buddhist claims that these hair relics are enshrined in the Shwedagon Stupa at Yangon, though it is generally believed that the merchants hailed from ancient Kalinga.

After the demise of Buddha and his cremation at Kushinagar and later the corporeal relics was distributed among eight Mahajanapadas, initially eight Stupas (*Saririka Chaityas*) were constructed at eight centres namely, Rajagrihya, Vaishali, Kapilavastu, Allakappa, Ramagrama, Vethadipa, Pava and Kushinara. Drona the Brahmin who initiated the distribution, himself erected a Stupa to enshrine the urn that was used to divide the relics.

The Moriyas arrived too late for a share of the relic and were given the wood ashes from the cremation pyre, and they too built a Stupa in their city of Pippalavana. Thus all together ten Stupas were erected i.e. eight on corporeal relics and two on urn and over wood ashes by Drona and the Moriyas respectively.

Jatakas mentions about the existence of Stupa but does not throw any light on the structural details of Stupa. The *Sujata Jataka* and the *Bahiya Sutta* describes Stupas as raised earthen mounds to commemorate the deceased. This indicates that most probably prior to Ashoka most of the

Stupas were made of clay (Pant 1976:3). Even the original Stupa at Sanchi and Bharhut are said to be made of clay.

Archaeological excavations and findings proved that during Ashoka's reign use of bricks and stone for constructional purpose became popular. But we cannot deny the fact that the predecessors of Ashoka like Bimbisara and Ajatsatru both had constructed a number of Stupas in honour of the Buddha which contained relics of Buddha (Mahaparinibban Sutta:83).

If Buddhism is a jewel with many facets, then the Stupa must be the natural expressions of this in architectural form. Multifarious in form but common in spirit, it adorns the landscape in places where Buddhism has taken root. Buddhists of all lands see the Stupa as a representation of the Buddha and his enlightenment. The Stupa thus is a monument erected over the relic of a Buddha or an enlightened disciple, or at places consecrated as scenes of his acts. According to the Chinese pilgrims Fa-hsien and Hsuan-tsang seeing Stupas which are said to have enshrined the objects which have been used by Buddha (*paribhogika* Stupa) i.e. his robe, bowl or walking staff, but archaeologically it is to be proven.

With the emergence of Mahayana sect it was not necessary that all the Stupas contained relics. It was taken over by the image worship, with the transformation from non-iconic to iconic for changes were also found in the architectural patterns. Mahayanist focused on miniature Stupas as donative structures for the sake of getting salvation which lead to multiplicity of Stupas without containing relics.

According to B.M.Barua (1934), Stupa architecture can be compared with different stages of man's life. He observes " putting of the relics in covered casket indicated stage of conception; putting of casket in a stone box indicates birth; covering of the box by a brick structure as infancy; the rise of the structure above the ground (*medhi*) as childhood; oval shaped (*anda*) that of adolescence; the *chatravali* and in compassing it by a stone railing keeping guard that of youth and coronation; the lion statues guarding the approaches are that of manhood; erection of ornamental archways and completion of sculptural representations that of maturity and victory; the addition of an outer railing and construction of the flights of steps that of decline and old age.

After Ashoka none of the Mauryan ruler showed any interest in propagating Buddhism. Then the Sungas gave a new dimension to the Stupa architecture. They ruled over north, central and western India between one hundred and eighty five BCE to 70 BCE Sunga and Kanva gave ample opportunity to fine art reflected the cultural and traditional life of the larger section of the people in the society i.e. the bas reliefs on the railings of the Stupa at Bharhut. During Sunga and Ekshakus period enlargement and additions were made in the existing Stupas of Sanchi, Bharhut and Amravati.

Sungas were followed by a spate of Yavanas invasions – the Bacterians, Greeks, Saka and Kushana on India. The Sakas took over Saurashtra and probably Taxila and Mathura. The Kushanas extended their empire from Kabul to Kashmir in the north-west to the whole of northern India. Kanishka (78 -120 CE) and Huviska (120 – 140 CE) contributed significantly to the Buddhist architectural movement. During Kanishka's reign a number of Stupas were constructed at Taxila, rock-cut Stupa architecture was introduced by him. It is recorded that Kanishka erected a Stupa to enshrine a scripture called Vibhasas (commentaries of the Sarvastivada tradition) at the end of the fourth Buddhist council (Weng Yew 1999:32). Gandhara and Mathura art flourished during Kushana period. Both these schools of art introduced iconic representations of the Buddha.

There are also Stupas, which do not hold any reliquary object inside. These are commemorative Stupas, which are erected at places associated with Buddha's life or that of his renowned disciple.

The architectural movement in the south (Andhra) flourished under Satavahanas (100 BCE – 200 CE). Rock cut architecture of Hinayana sect became more prominent. There is very little information regarding the history of the development of Stupa architecture in north. The Gupta period is considered as the golden age of Indian history. Guptas were Vaishnavites but were tolerant towards Buddhism. It is said that the Stupa at Sarnath was built during the Gupta period.

Unfortunately in India all the later structural examples of stupas are in ruins, the upper portions having decayed and disappeared. But a few good specimens belonging to this period still survive in the form of Votive stupas of stone and metal, literature, and specimens in Ceylon and Burma.

Evolution of Stupa (Textual References)

Vinaya-ksudraka Vastu

There are four categories of *Vinayasutra* i.e. *Vinayvastu*, *Vinayavibhanga*, *Vinaya-ksudraka Vastu* and *Vinaya Uttaragrantha*. The latter two gives valuable information upon the architecture of the Buddhist Stupa. Both these texts are the Tibetan versions of the lost Sanskrit originals found in the Kagyur Testament (Dorjee1996:1).

According to *Mahaparinibban Sutta* of *Dighanikaya* (Roth1980:183);(see also Mahaparinibban Suttanta in Sanskrit,36.2-3) and *Vinaya-Ksudraka Vastu* in Tibetan version, Ananda asked the Buddha, how to deal with the Tathagata's body? Buddha replies, this would be the task of learned *Kshatriyas*, learned *Brahmanas* and learned householders. From this Buddha meant that this was not the concern of the order of monks, nuns, the *samgha*, but of the laity. When Ananda asks how to perform the funeral rites of Buddha after his demise, the Buddha replies that they should be performed according to the funeral rites of a *Cakravartin*, a ruler of a *Cakra*, by custom due to an emperor. The Lord further concludes that the bones should be deposited in a

golden urn, a Stupa of his physical body at the crossing of four main roads built, along with umbrellas, banners and flags.

According to the Tibetan version of the *Vinaya Ksudraka-vastu* of the *Mulasarvastivadins* (Roth 1980:183-84) Cunda a disciple of Sariputra collected the corporeal relics, the alms-bowls and the robe of Sariputra after his funeral rites and handed them over to Ananda. Anathapindada, a rich layman asks Ananda to hand him over the relics and belongings of Sariputra. With Buddha's order Ananda gives all the relics and other utensils to Anathapindada.

Anathapindada places the relics, alms-bowl and robe on a prominent place of his house to enable people to come and pay their homage. Once he had to lock the house and go out and the people who had come to pay homage got annoyed. So, Anathapindada placed the matter before Buddha, whom he asked to allow him to built a Stupa for the venerable Sariputra.

Buddha gives his consent and gives the following instructions to build a Stupa:

(1) In due subsequent order at first "four terraces", (2) "the receptacle for the pot" are to be made, (3) the "pot", (4) the "vessel", (5) the "pole", (6) the "umbrella canopy" from one to thirteen (superimposed) umbrella canopies and (7) the "protection against rain" are to be made.

Buddha says about the different numbers of superimposed umbrella canopies to be assigned are, that Stupas for Tathagatas should be thirteen (superimposed) umbrella canopies, for Pratyeka-Buddhas without any "protection against rain", Stupas of Arhats should have four umbrella canopies, of those who do not return (*an-agamin*) three, of those who return (*ago-min*) two, and of those who have entered the stream (being converted) only one and Stupas for laymen are to be constructed without umbrella canopies.

When Buddha was asked that in which place Sariputra's Stupa should be constructed, he said that it should be built in accordance with the rank or order of seats which both Sariputra and Maudgalyanaputra occupied in the *Samgha* in relation to the seat of the Tathagata. Respectively, the Stupas of other elder members are to be arranged in due order of their rank. Stupas of the virtuous laymen however have to be constructed outside the *Samgha* compound (Dorjee 1996:3).

Thus these descriptions precisely illustrate the main structures of the Buddhist Stupa including the structural distinctions for the different classes of the Buddhist saints, are indicated by the number of umbrella assigned to them. This narration is one of the oldest Stupa references in the Buddhist testament.

Each disc of the umbrella has its own significance and is assigned as follows:

The first disc represents the mystical power to know the ability to perceive what is the position and what is not the position for the preaching and activity of the Buddha.

The second disc represents the mystical power to know the ability to perceive that everybody is responsible for his *karma*.

The third disc represents the mystical power to know the ability to perceive all meditations, liberation, concentration and union with superior spheres.

The fourth disc represents the mystical power to know the ability to perceive the superior and low moral faculties.

The fifth disc represents the mystical power to know the ability to perceive the various inclinations of beings.

The sixth disc represents the mystical power to know the ability to perceive the different spheres of existence.

The seventh disc represents the mystical power to know the ability to perceive the way leading to any desired place.

The eighth disc represents the mystical power to know the ability to remember previous existences.

The ninth disc represents the mystical power to know the ability to perceive the time of death and rebirth.

The tenth disc represents the mystical power consisting of destroying sinful forces.

The eleventh, twelfth and thirteenth disc represents the three supports of awareness unusual to the Buddha.

It was probably during the reign of Ashoka, that the royal umbrella first became associated with the stupas in India after he made Buddhism the state religion. (Longhurst 1992: 16-17)

Vinaya Uttaragrantha

This text records the tradition of the construction of a Stupa the Buddha's hair and nails. There is a long list of additional structural components and ornamental parts which are slowly added to the Stupa constructed over Buddha's hair and nails by Anathapindaka during his life time.

The following account is mentioned in the seventh stanza of the *sutra* (Dorjee 1996:4);(also see Kagyur, Vinaya, Derge, Vol.PA, (Toh.7) fol.264b6). With Buddha's permission Anathapindaka white washes the Stupa build over the hair and nails of Lord Buddha to make it look attractive.

Later he realised that the Stupa did not look nice in the evening due to lack of illumination. So, he requests Buddha to allow him to offer a circle of butter lamp and the installation of the lamps were tested in three ways: by putting the lamps on the upper part of the Stupa, which tarnished the white colour of the Stupa due to dripping of the oil and the lamps were placed in the lower part from where the lamps were easily accessible to dogs who consumed the oil and which caused the architect to make niches for holding the lamps.

Similar problem arose with regards to the cattle that polluted the area around the Stupa by strewing their dung. So, in Buddha's concern railings were erected all around the Stupa and gateways (*torana*) were also added to it.

Vimalosnisa

The Tantric section of the Tangyur Testament contains twin works on *Vimalosnisa*, one attributed to Sahajavilasa and the other to the anonymous.

According to Sahajavilasa “*one should erect the Stupa over the corporeal relics of Lord Buddha on a hill or a plain or a valley and avoid a cemetery*”. The text in particular points the various structural components of the Stupa and their proportions to be kept in mind during construction and at the end of the text it talks about the colours to be put to the structural components of the Stupa.

Chaitya-Vibhanga-Vinayaddhrta-Sutra

This text is the Tibetan version entitled, *Mchod rten gyi cha dbye ba 'dul ba las byung ba' i mdo*, of the lost Sanskrit original manuscript. This is mentioned in the Tantric section of the Tangyur testament (Dorjee 1996:10); (also see Narthang, Vol. TU, fol.174a3-5; Derge, Vol. PU (Text 3078), fol.173b3-175b1; and Peking, Vol. TU, fol.187b4-189b7).

The text deals with the symbolical meanings of the main structure of the Stupa, in order of their sequences with the essence of the Tathagata's Dharmakaya. The essence are the four close mindfulness, the four perfect abandonments, the four miracle powers, the five faculties, the five forces, the seven factors of enlightenment, the eight fold noble paths, ten types of consciousness, ten mystical powers, the three absolute unshared mindfulness, and the great compassion that are connected with the structures of Stupa by the following references: “the reflected image of these sets of above mentioned notions are called as the reflected image of the Dharmakaya.

The ancient Indian literature is abounding with Stupa construction manuals which provide sources for the study of the Buddhist Stupa. These Stupas can be seen all over India, Nepal, Tibet, Mongolia, Bhutan and parts of China in various sizes built according to the specifications mentioned in the literature.

Symbolism of the Stupa

The Stupa is one of the ancient symbols of the Buddha because of its association with his Buddha himself and is honoured as such. This devotion is expressed in the Mahavastu Avadana of the Lokuttaravadins “He who having turned his thoughts to the enlightenment for the sake of all living things, reverentially salutes the tope of the saviour of the world, becomes everywhere in all his lives as he fares on the way to enlightenment, mindful, thoughtful, virtuous and assured” (Jones 1952:329)

Stupa also symbolises Buddha’s enlightened mind and his teachings and few Stupas were built to enshrine Buddhist scriptures. Furthermore the architectural elements of a Stupa are symbolic of the doctrine and may vary with tradition. In some Theravada traditions the parts of the Stupa represents the divisions of the noble eight-fold path (ethical conduct, concentration, wisdom and nirvana).

The Buddhist Stupas are of three kinds, *saririka* Stupa raised over the relics of Buddha or Arhants. The existence of such Stupas is archaeologically proven in several places like Sanchi, Taxila, Vaishali, Piprahwa, Bhattiprolu and Nagarjunikunda. *Paribhogika* Stupas are the Stupas which enshrine the objects which have been used by the Buddha such as robe, bowl or walking staff. Fa-hsien and Hsuan-tsang the Chinese pilgrims reported seeing Stupas enshrining such relics but archaeologically it has to be proven. *Uddesika* Stupas were erected just for worshipping and contained no relics or to enshrine scriptures. The Stupa raised by Ashoka in the Lumbini garden visited by the emperor on his twentieth regnal year accompanied by his teacher Upagupta. Another example is when King Kaniska had built a magnificent Stupa to enshrine the Vibhasas (commentaries of the Sarvastivada tradition) at the end of the fourth Buddhist council.

The Vajrayana tradition attributes the components of the Stupa to each of the five elements (earth, water, fire, air and space). These elements represent the different stages in the transformation of psycho-spiritual energy in the path to enlightenment. Hence being an object for devotion, the Stupa also became an instrument for meditative visualisation.

Evolution of Stupa as seen from Archaeological remains

Amongst all the religious monuments of the world, the stupa has the largest uninterrupted historical development spanning more than 3 millenniums. In India almost all the early structural Stupas were in ruins, most of which were destroyed in due course of time by weather and treasure hunters or have lost its original shape due to subsequent renovations (Whenever an old Stupa was repaired it was renovated according to the style prevalent during that period. For instance, the present form of the great Stupa at Sanchi is after the renovation done in the second century BCE, but within its core are the remains of another Stupa built more than 100 years before i.e. belonging

to the Ashoka period. Similar instances are found in the Stupas at Taxila and Nagarjunakonda), making it difficult to describe the shape of the earliest Stupas. For this one has to fall back on sculptural representations of them in order to form a correct idea of their appearance when complete; fortunately there are plenty of materials for this purpose (Longhurst 1992: 14)

The Stupa symbolised legitimating through sanctification and stability. The signs of sanctification were the addition of a tuft hair, representing supreme power. Stability was shown by a stump or wooden shaft as the axial pillar in the centre of the monument. Irwin (1979:838) emphasizes that the primary component of the early Stupa had been an axial pillar of wood. The wooden shaft in the centre of the Stupa was found at Vaishali, Bihar. Here the first recorded excavation was conducted in the year 1800.

After the first century CE, Stupa architecture underwent a gradual transformation. The heights of the accessory parts became more accentuate.

The Stupas in ancient India were generally composed of three parts (Fig. 3).

1. The base or drum.
2. The dome (*anda*) which resting on the drum, demarcating a terrace called *medhi* in the *Divyavadana* (Cowell & Neil 1886:244) and in Ceylon, *pupphaddhana*, a Pali word meaning “place for depositing flowers”. The relics are kept in the hollow space in the interior of the dome of a Stupa. The relic casket is generally made of precious metal in the shape of a miniature Stupa.
3. The upper part is made up of a square structure called *harmika* (meaning Pavilion), into which the shaft (*yupa*) bearing the umbrellas (*chatra*) is inserted. The term *harmika* is not available in the *Mahavamsa*, and this part of the Stupa is called *caturassa-caya* meaning quadrangular enclosure. In Ceylon, it is also called *devata kotuwa*, “citadel of Gods”. (Benisti 2003:6); (also see Pranavitana, The Stupa in Ceylon, in MASC V 1947:16. Mahavamsa XXXI: 124).

The Stupa comprising of the above three parts was generally surrounded by a railing, this space was used by the devotees for performing *pradikshina*, a rite of worship. The *pradikshinapatha* (circumambulatory passage) of the Stupa was often paved with stone panels bearing votive inscriptions. In the *Mahavamsa* this railing is called *pada-vedika*: railing at the foot or ground railing around the Stupa.

The *vedika* reminds of the ancient wooden railings, it is made up of a plinth (*alambana*), upright (*stambha*) in to which cross-bars (*suchi*) are fitted followed by a coping stone (*usnisha*). According to Coomarswamy, this part of the *vedika* is called *usnisha* “turban”, it is “due to its relationship to the Stupa which it encircles, like a turban or ribbon encircles the head of the person wearing it”. It is generally cut by one or four doorways. The *toranas* are built up of two large pillars linked by two or three lintels. Close to the *toranas* are isolated *lat* pillars holding various

symbols above a capital. Hiuen-tsang mentions the existence of these columns erected in front of Stupas in his writings. According to him, one was erected to recall the circumstances of the death of the Buddha, another one with inscription, to mark that it was here that the relic was divided. He mentions one more whose surface is polished and were we can constantly see the shadow of the Buddha.

Generally the bigger Stupas were constructed of bricks, some small ones were made of soap stone or blue schist, etc. The bigger ones were plastered which is mentioned in the texts: for example, in the *Mahavastu* it is said that a Stupa was built 'too big nor too small, covered with clay (*mrttika*) and stucco (*sudha*)'; the same word is found in the *Mahavamsa*. Wood was also used in construction; it is thus that a story from the *Sutralamkara* mentions a tree which was used as a beam for supporting a Stupa.

In the earliest phase the Stupa was always in the shape of a large hemisphere resting on a drum. It is only after the fifth century CE (Intermediate period) that it underwent two important modifications: basement on the one hand, and the crown on the other, concurrently increasing their importance to the detriment of the dome which earlier constituted the entire structure. (Fig.3)

The later versions in contrast, were tall, often resting on a higher platform with the surmounting structures such as the *chatra* becoming more elongated (Late period) and spire-shaped (Fig.3).

The early Stupas such as at Sanchi and Bharhut, only the railings were decorated with motives and symbols later doors and domes became covered like them with bas-reliefs representing scenes from the Buddha's life and from *jataka*. Hence a Stupa worked like a book in stone offered for mediation to the devotees who came to circumambulate around the Stupa.

The images of the masters appeared only in the first century CE till then his presence was represented only as symbols.

Development of the Stupa and its parts

The earliest Stupas such as we see in the carvings at Bharhut and Sanchi, were low circular brick mounds resembling in outline their humble prototypes of the pre-Buddhist period. They were not built or decorated so elaborately or elegantly like some of the famous Stupas built at Amravati and Nagarjunakonda. The Stupas built by Ashoka were simple structure built of bricks and plaster, surrounded by a wooden rail with open gateways facing the cardinal direction.

Representation of the early type of Stupa can be seen at the Sanchi's entrance gateway pillar, which is a simple structure shaped like a hemispherical cup placed upside down and is surrounded by a simple railing. The circular drum is very low and the Stupa is small structure of brick or stone pieces, devoid of *harmika* or *chatra* but surrounded by a short railing (wooden prototype). The wooden railing that was initially erected around a Stupa was later on copied in stone on a more

elaborate scale for the bigger Stupas , such as at Bharhut, Sanchi, Amravati and at Bodhgaya around the Mahabodhi temple.

The earlier Stupas being quite low and comparatively small so could well be decorated by pious worshippers with festoons and garlands of flowers which were supported by the pegs. This later on developed into a conventional representation of the festoons in plaster work over the edifice and the pegs became purely ornamental. The rail in its primitive form was a simple fencing made of wooden pillar with *suchis* fixed within lenticular sockets were later copied on stone turned to be heavy and laborious speaks eloquently of its origin. The elaborate rail with decorations carved on it came later, the gateways at the cardinal points being special ornamental feature as exemplified in case of Bharhut and Sanchi.

The oldest example is the brick Stupa from Piprahwa near Nepal, has a height of only 22 ft and a basal diameter of 116 ft. Whereas, the Sanchi Stupa which is of a later period is 54 ft high with a basal diameter of 120 ft. The proportional height is just about half, while at Piprahwa it is less than one-fifth (Longhurst 1992: 13). On this surmise the age of a Stupa may be determined approximately from its shape and height, the earliest being a simple hemispherical, and the later ones were lofty round brick tower standing on a high terraced platform.

With the size of the Stupa's becoming huge and to economize the building material (brick or stone) in some cases small compartments were made and filled with earth and rubble. The foundation of the Stupa of south-eastern India is unique in its own kind e.g. Nagarjunakonda, Ghantasala, Alluru etc, the structure was in a form of a wheel with a hub, spokes and a rim. In the case of larger Stupas the spokes were further strengthen with additional walls and the space between the spokes were filled with earth or a layer of concrete and earth. Another way which was not very common was solid flooring above the earth-packing at regular intervals in the height (Mitra 1980). The flooring was made either of bricks as found at Jaggayyapeta or of concrete as found at Garikapadu.

The relic caskets were generally placed at the centre of the Stupa but in some instances like in Nagarjunakonda the relic was kept far away from the centre and in Amravati five relic caskets were found from the southern *ayakas* of the Stupa.

The drum of the Stupa also underwent changes; from the Kushana period onwards the *medhi* portion became very elongated, leaving the *anda* portion look very short in height. The *vedika* with cardinal projections approached by steps leading to them disappeared and for the first time such as in Stupa-I of Sanchi during the Gupta period four images of Buddha were placed in cardinal directions. The drum was no longer low, the height being considerably increased and the *anda* or the cup-shaped part instead of retaining its primitive semi-circular contour bulged out above the drum. This bulging is found even in the rock cut Stupas at Kanheri.

Simultaneously with the elongation of the *medhi* portion the discs of the *chatra* also increased in number and appeared like a tall conical spire, sometimes crowned by a single *chatra* and often tapering to a conical point (Mitra 1980: 30).

In most of the cases the upper portion of the *harmika* expanded, its facades relieved with offsets and recessed angles.

Gradually the platform becomes a permanent part of the Stupa to serve as a pedestal for the *medhi*. Initially the shape used to be square or circular slowly the shape changed as can be seen in the Stupa of Ratnagiri with the addition of multiple projections on each face of a square. In few cases the platform grew higher, built in a form of diminishing terraces as in Lauriya-Nandangarh, and often decorated with mouldings or sunken panels between the pilasters as seen in Andhra or niches separated by pilasters as in Gandhara (Mitra 1980: 30).

Sometimes they were conventionally strained into fantastic curves in a most unnatural way on either side. Sometime they form canopy over the Stupa.

The evolution of the *torana* (gateway) is equally interesting. The earlier type is found at Amravati. The early gateways were a pair of pillars to which were tied the two ends of a *torana* wreath. The earlier *torana* pillars must have had fresh *torana* wreaths tied to them every day. Later heavy stone work took the place of wreath.

The four gateways were connected with railing round the Stupa which were sometimes richly sculptured inside with scenes from the legends of Buddha in his various births, the outer side showing only dwarf lotuses and half lotus medallions on the uprights (pillars) and cross bars (*suchis*) and a long undulating flower garland on the coping (*usnisha*) and are available in Barhut, Sanchi and Amravati railings.

According to Foucher (Foucher 1934: 51-52), the pseudo-flower garland and a long purse full of coins appropriately issuing from the mouths of Yakshas (guardians of treasure) for the benefit of the devotees. The plinth was also carved with representations of man running after mythical animals.

Prof. Dubreuil (Jouveau-Dubreuil 1922) has nicely explained the decorative motifs of Amravati Stupas. He divides them into three main divisions of the Stupa into smaller parts; first the cylindrical part or the base is composed of two subordinate parts (a) the sculptured panel zone below (b) the narrow frieze above. Second the hemispherical part is composed of (a) a range of sculpture (b) a plain zone above (c) a decorated collar (d) a plain zone at the top.

On the top is the square part, the *harmika* which is balustrade around a central pillar of imposing dimensions, besides which are the parasols/*chatra*.

The *ayaka* platform has projections at the cardinal points. There are five pillars on each projection, square at the base then octagonal and finally round at the top. The platform is rather narrow all along for the size of the Stupa.

After a detailed discussion on the various aspects of Stupa Architecture, a brief of some of the main Stupas is done below for better understanding of the next chapter “The Stupa Architecture in Orissa”

Vaisali

Vaisali located in Bihar was excavated from the year 1958-62 by B.P.Sinha and Sita Ram Roy. This site yielded NBP ware and can be associated prior to Mauryan period. Vaisali was ruled by the Lachchhavis, after the demise of Lord Buddha they too got a share of the relic of Buddha and built a Stupa at Vaisali. This Stupa was rebuilt and enlarged several times; archaeologically it has been proven that the Stupa was at least four times renovated and enlarged with bricks till 187 CE Initially the Stupa was just a heap of earth.

On the basis of the potteries reported from the site, the site can be dated back to 600 to 550 BCE. The earliest Stupas were small in size made up of layers of piled up mud. These piled up mud layers were separated from each other with a thinner layer of *kankar*. The Stupa had *ayaka* platform, most probably one each at cardinal directions, prototypes of the *ayakas* of the lower Krishna valley. However only two of the *ayaka* platforms were found, of which only the southern one was intact; measuring 1.52 m in length, 34 cm wide and 15 cm in height.

From the robbers trench a relics casket made of soapstone was reported. The excavators opine that ‘it is possible that Lachchhavis themselves might have dug this Stupa probably to build more Stupas over the relics’ (Sinha and Roy 1969:22). The Stupa was build over a thick solid platform. Around the platform at a lower level the floor was smoothened might be for the purpose of circumambulation. During the third enlargement of the Stupa the flooring was paved with burnt bricks. The Stupa was enlarged with burnt bricks during the early Mauryan period; the enlargement was not uniform all around.

In the first quarter of the third century BCE the Stupa was badly eroded from the south-western and north-western side, during the restoration work the diameter of the Stupa reduced from 10.46 m to 10.21 m. The Stupa was again enlarged in the second century BCE and now the diameter of the Stupa increased to 11.63 m. Last time it was in first century CE when the Stupa was restored after that it was left in debris.

Piprahwa

Piprahwa is situated in Basti district of U.P. this site can be dated back to fifth-fourth century BCE. William Peppe an amateur archaeologist had dug the centre of the Stupa in 1897 and found an inscribed relic casket. The inscription was in Ashokan *Brahmi*. The area from where he obtained the relics fell in the second phase of the Stupa i.e. middle Mauryan period.

The site was only scientifically excavated in 1971 by K.M.Srivastav (IAR 1970-71:37). The excavator believed that the Stupa had at least two structural phases. Initially the Stupa was an earthen mound encircled by a single line of burnt bricks. Two relic caskets were unearthed from the Stupa. The relic caskets are believed to be of Pre-Mauryan period.

When the Stupa was enlarged the *anda* of the mud Stupa was totally removed possibly as it might have got washed off due to rain and other environmental hazards. This renovation work started with a square base of burnt bricks. It contained rectangular niches at regular intervals for bearing images.

As at the centre of the Stupa there was a pipe like hole Peppe described it as a circular pipe, same kind of a hole was found in the Stupas of Bhattiprolu in Andhra Pradesh the site was investigated by an engineer named Norris in 1871 in his report he mentioned it a shaft of the *chatra* (Irwin 1979:811-812). Similar kind of hole at the centre was found at Lauriya-Nandangarh, a wooden stump penetrated till the virgin soil was found (Irwin 1979:816). This finding made it clear that a wooden pillar was placed at the centre of some of the ancient Stupas. Vaisali, Ghantasala and Gotihawa are few other sites from where the axial pillars are reported.

In Cylone also this kind of axial pillar was reported but of stone and traditionally it was known as *Indra-kila* which means Indra's peg. When the local monks were asked why it is called so, they couldn't answer.

Different scholars have different opinion; according to D.Mitra (1981:26) "The pipe was probably meant for marking the centre of the dome in order to facilitate the laying of brick courses in circular rings", according to Irwin "Stability was expressed by a stump or wooden shaft as the axial pillar in the centre of the monument", so does Paul Mus "Henceforth, the central part played by the axial pillar in the structure of the Stupa is confirmed. It is not just that it marks the centre, and that it rises up and dominates the Stupa in the form of a staff bearing parasols: the entire masonry surrounds and encloses it, is explained by it, and constitutes no more than – in a single word – its envelope. From the above discussion, "it is clear that a Stupa is to be understood above all in terms of its axis" (Tucci 1988: xxiv). In the Tibetan tradition, the axial pole of the Stupa is considered as the Tree of Life (Irwin 1979:839).

Sanchi

The Stupa-I at Sanchi (Plate- III) is said to be built during the time of Ashoka in a form of a brick mound veneered with dressed stone. In the second century BCE the Stupa was enlarged in a form of a high circular *medhi* with a circumambulation passage at the ground level surrounded by railing pillars, that consists of a *stambha* connected with three *suchis* crowned by *usnisha* (coping stone) and a balustrade stairway on the south was build for the purpose of circumambulation around the *anda* portion. A huge hemispherical *anda* followed by *harmika* within a square railing

crowned by three superimposed *chatras*. There were four entrances on the four sides, formed by L-shaped projections of the railing.

After a century in front of all the four entrance, beautifully and intricately carved *torana* (gateway) were installed. The *torana* is engraved with the images of horse and elephant riders, *yakshas*, *tri-ratna* and *dharmachakra* symbols. The Stupas build immediately before and after the Christian era in northern and central India are quite similar to Stupa-I of Sanchi. The balustrades and the *torana* were not the common feature of all the Stupas. Like in Stupa-II of second century BCE at Sanchi has four entrances formed of the L-shaped extensions of the quadrants of the balustrades without a *torana*, while the Stupa-III belonging to the first century CE consists of only one *torana*. The Stupa at Bharhut was embellished with *stambha* and *suchi* at the ground level and *toranas* on cardinal directions, but the *torana* are not as richly carved as that of Stupa-I of Sanchi.

The *harmika* constructed over the dome of the Stupa which bore on its crown the *chatra*, has been reconstructed since in spite of being best preserved Stupa its *harmika* had been disappeared due to wear and tear of the ages.

Dharmarajika Stupa

Dharmarajika Stupa at Taxila was excavated by Sir John Marshall in between 1913-14 CE. The complex consists of the Dharmarajika Stupa with its surrounding shrines. This Stupa is the most important Buddhist edifice in Taxila and is likely one of the earliest. The nucleus of the Stupa goes back to the days of Ashoka. The name Dharmarajika itself suggests that Ashoka was associated with the construction of the original Stupa. It underwent several restorations and reconstructions until the last days of Buddhism in Taxila. Despite the damages it is still an impressive structure, with a height of 14 meters and a diameter of 35 meter. There is a raised terrace around the base that was used as a *pradakshina patha*, four flights of steps head up to the terrace, one at each cardinal point. The core of the of the Stupa is filled with rubble and there are sixteen interior supporting walls which radiate from the centre (wheel shaped). Unfortunately no relic was found inside the Stupa.

Long before systematic excavation was undertaken, the dome of the Stupa was found open from the top and whatever precious objects and relics that had been enshrined were removed by the treasure hunters. To the north-east of the Stupa is a oblong shaped building thought to be a Bodhisattava's shrine, near the back wall of the shrine, about 30 cm below the original floor, Marshall found a vase shaped casket of grey micaceous schist that contained a silver vase inside. The silver vase held a silver scroll and a small gold casket containing bone fragments. The inscription of the scroll, in Kharoshti script and dated back to the year 136 of Azes (78 CE) states that these relics were those of the Buddha and were enshrined by a devotee called Urusaka, a

Bactrian. These bone relics of Buddha concealed for almost two millennia in a forgotten shrine are regarded as one of the most significant finds at Taxila. (Marshall 1951: 256-57)

The translation is as follows:

In the year 136 of Azes, on the fifteenth day of the month of ashada, on this day relic as of the bless one were enshrined by Urasaka, scion of Imtavhria, a Bactrian, resident of the town of Noacha.

These relics of the blessed one were enshrined Bodhisattava shrine at the Dharmarajika Stupas at Taxila, for the bestowal of health upon the great kings, king of kings, the son of god (devaputrasa), the Kushan, in honour of all Buddha, pratyeka Buddhas, Arhatas, all sentient beings, parents, friends, advisors, kinsmen and blood relations for the bestowal of health upon himself.

May thy right munificent gift lead to nirvana.

Nagarjunakonda

Nagarjunakonda is located in Palnad Taluk of the Guntur district, Andhra Pradesh in South India. It was a secluded valley about 23 sq km in area and was surrounded on three sides by a group of hills which were off shoots of the Nallamalai range. The river Krishna flowed in the northeast associated with the celebrated teacher Nagarjuna of second century CE.

A.H. Longhurst, the then superintendent of the A.S.I, conducted full scale excavation from 1927-31; most of the monuments at the site was constructed in third-fourth century CE. During the reign of the kings of the Ikshvaku dynasty remains of more than thirty Buddhist establishments were found.

The great Stupa is the oldest and most central sacred monument at Nagarjunakonda. Inscription date the Stupa around 246 CE but archaeologist believed that the Stupa could be older i.e. earlier to 246 CE The complex was built by Charntamula, and mother-in-law of the second king Virapurushadatta.

The great Stupa is one of the largest structures in the city of Vijayapuri. It has a diameter of 28m but its original height is not known as the upper part of the Stupa had been destroyed. The Stupa is made of bricks and its interior is not solid brick work but consist of a system of walls arranged in the form of a wheel, with a rim and spoke radiating from a central hub because of its large size, additional support was given by adding two further concentric ring around the central core. The design of concentric and radial walls forms three rows of cells in the interior of the Stupa (eight in the inner, sixteen each in the middle and outer). The external surface of the Stupa was coated with a plaster of lime. A.H.Longhurt in 1929 made a significant discovery of bone relics paled in a gold reliquary with a few gold flowers, pearls and pieces of garnet and crystal kept inside

a silver casket in one of the outer most north-western cells. An inscription at the site states that this is the great Stupa of the blessed one, hence archaeologist infer that the bone relics are those of the Buddha.

Both the sets of Buddha's bone relics found from Taxila and Nagarjunakonda were presented by the Director General A.S.I to the Mahabodhi Society in 1931 for their safe custody and veneration and thus enshrined within the newly constructed Mulagan Kuti Vihara at Sarnath, since corporeal relics of the Buddha are highly venerated by the Buddhists as they are seen as symbol of the Buddha's presence.

Sarnath

Located in Uttar Pradesh is situated at a distance of 8 km from Varanasi Cant railway station. Sarnath is a most holy place for Buddhist as Buddha preached his first sermon here (Rishipatana) and expounded four noble truths.

Ashoka, the great Mauryan ruler started significant constructions at the spot where Buddha had turned the wheel of law in motion and constructed the great Dharmarajika Stupa about 30.4 mt high which was crowned at its top by a monolithic railing, some shrines along with the creation of the monolithic pillar topped by the famous lion capital. In 1794 CE one Jagat Singh of Varanasi pulled down the Dharmarajika Stupa for collection of raw materials and in due course a reliquary within a stone box came to light but was thrown in the Ganges by him. The original structure raised by Ashoka was 13.49 meter in diameter with brick size (49.5x36.8x6.4cm) and wedge shaped (41.9x31.7x8.8cm).

Cunningham measured Dhameka Stupas diameter at the base is 93 feet and its height 110 feet. It is a solid cylindrical tower, 28.50 meters in diameter at the base and 33.53 meter in height. The structure consists of a circular stone drum to a height of 11.20 meters resting on the ground without the usual rectangular basement. Above the drum rises the cylindrical mass of brick work. Halfway up the base are existing eight niches in regular intervals which must have held images. Immediately below them runs a broad course of elaborate carvings with geometrical and floral patterns combined with birds and human figures of Gupta style on grey sand stone. This large scale surface decoration shows the high achievement of Gupta workmanship in designing most intricate scroll pattern. It is not unlikely that it marks the spot of the preaching of the Dharma by the Buddha.

Chaukhandi Stupa

It is a lofty brick structure, the central walls of the three successive terraces were provided with niches for statuary. An image of Buddha seated in *dharmacharkra mudra*, a Bodhisattava and two beautifully carved bas reliefs of Gupta style indicates that the monument existed in the Gupta

period as a terraced temple. The octagonal tower on top is a Mughal monument built in 1588 to commemorate Humanyu's visit to this place.

The next important commemorative Stupa constructed at Nalanda in honour of Sariputra. During the day of Mauryans, Ashoka and subsequently in the Gupta period it turned into a huge monastery complex later well known as university of Nalanda. The ruins of the Ancient Buddhist establishments of Nalanda lie close to the village of Bargaon, south-east of Patna and north of Rajagriha. The temples were constructed on the west facing east and the monasteries on the east faces west. The main temple (temple No-3) standing at the southern extremity is the largest and most imposing structure. This temple is a huge solid structure standing in the middle of a court surrounded by a number of small votive Stupas.

During excavation it was found that the very small original structure was enlarged by later reconstructions and renovations build over and around the ruins of the earlier ones, the present mound being the result of seven successive recapitulations. The fifth of these successively built temples is the most interesting and best preserved. It had four corner towers of which three have been exposed and was found decorated with rows of niches containing well-modelled stucco figures of Buddha and deities of Buddhist pantheon are fine specimens of Gupta art.

As the structure increased in size with each addition, the level of the court gradually rose and many small votive Stupas are found at several places, completely or partly buried under the different floors and walls that have been exposed.

The eastern part of India comprising of Magadha and Bengal yielded many Buddhist temples side by side with the Stupas and monasteries viz; Bodhgaya temple, Nalanda Temple-3,12,13 and 14, Vikramsila complex with a lofty temple in the centre of a huge court surrounded by monasteries cells all around , Paharpur in Bangladesh, Temples of Maynamati etc.

Thus with the passing away of time the structural activities of Buddhist Stupas of Barhut, Sanchi, Amravati etc underwent changes and along with the constructions of Stupas, *chaityas* and *viharas*. Buddhism flourished unabated till twelfth-thirteenth century CE.

The importance of Stupa as a sacred object of veneration continued in unbroken sequences and large number of votive Stupas were constructed in large, medium and smaller dimensions on stone, bricks including monolithic Stupas with images of Buddha and Buddhist divinities and also devoid of images. The monolithic votive Stupas reported from Nalanda, Bodhgaya, Sarnath, Sanchi, Orissa etc are forming a class by themselves for the study of the art, iconography and architecture associated with Buddhism.

As already stated above magnificent temple building activities flourished in the Pala Empire as exemplified in Nalanda (Temple No-3). Mahabodhi temple at Bodhgaya, central shrine at Vikramsila are leaving behind a great legacy of Buddhist pursuits in art and architecture throughout the length and breadth of the country.

The Upper Indus Valley region

Buddhism with its advanced Mahayano-Vajrayanic form reached Tibet and its neighbouring area Ladakh mainly from eastern India in about seventh century CE. According to Tibetan Buddhist tradition three types of Stupa comes under the Mahayana type, classified by Nagarjuna they are in the form of an inverted bowl, a tiny-house and group of eight Stupas (Plate- IV). These forms of Stupas are found in Tibet and Ladakh.

Tibetan Buddhist tradition differs from the Pali texts when it comes to the names of the places where original Stupas were built on the relics of Buddha. Dorjee (1996: xi) refers to two unique kinds of Stupa: one simulating a raised post or column and the later a structure with multiple auspicious doors. The former kind of Stupa type is not found in India but Minar-i-Cakri in Afghanistan which is a pre-Islamic Buddhist monument may represent a post like Stupa recorded in the Tibetan tradition. Possibly the column like structure was influenced by Vedic concept of *skambha* (a pillar like structure) which was adapted by the Buddhists. The multiple door type is found in Ladakh, similar type of ancient structure is the Caukhandi Stupa at Sarnath and Stupa at Kesariya, Bihar of seventh-eight century. This type travelled to South East Asia and culminated in Borobudur with modifications. A noteworthy feature in the elevation pattern in some of the Stupas of Ladakh area is quite similar to the *pidha* type of tiers in the form of pyramidal structure of receding stepped mouldings of the Orissan temples indicating some close cultural links between Orissan and Indo-Tibetan structural tradition.

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After discussing the 'Development of Stupa Architecture in India' includes the stupa architecture from early to later phase, textual and archaeological references on stupa architecture and important stupas across India and abroad. In the next chapter 'The Stupa Architecture in Orissa' the main Stupa, the structural stupas, monolithic stupas, and the stylized forms in details of the four major excavated sites of Orissa has been done. The

above discussion both from literary sources and from Archaeological remains has been carried out briefly to facilitate the study to see how and what extent the stupa development was influenced from the general trend seen at different time in the subcontinent or to what extent it had its regional manifestation and development or otherwise

