

DIGITALIZATION OF BUDDHIST SITES IN INDIA

by D. Dayalan*

India, being the homeland of Buddhism, is boosted with a large number of Buddhist sites. Of them, the Four Great Places namely Lumbini where the Buddha was born, Bodh-Gaya, which witnessed his Enlightenment, Sarnath, where the First Sermon was delivered and Kusinagara, where he attained *parinirvāṇa* (deceased) are embellished with monuments of varied kinds. Other places somewhat lesser importance in Buddha's life, namely, Sankisa (Sāmīkasya), Sravasti, Rajgir and Vaisali also became the scene of monumental activities. Every spot associated with Buddha is immortalized and turned into a centre of pilgrimage by his followers who erected structures in the hallowed memory of the Master. It is mentioned that Buddha himself had suggested on his death-bed that the *stūpas* should be erected over his mortal remains¹. Thus, the worship of *stūpas* was an essential feature of early Buddhism. *Stūpas* (Pāli *thūpa*), derived from the root word *stūp* (to heap), are mounds or tumuli. *Stūpas* are known in Sri Lanka as *dāgāba*, this being derived from Pāli *dhātu-gabbha* (Sanskrit *dhātu-garbha*), "structure containing within its womb, *garbha*, corporeal relics *dhātu*. Originally, they had a funerary association, being mounds containing the corporeal remains of the dead collected from the funeral pyre.

It is mentioned that after the demise of the Buddha, a Brahmin named Drona (Dona) divided the relic of Buddha into 8 parts and gave it to Ajatasatru of Magadha; the Licchavis of Vaisali; the Sakyas

* Dr., Director, Archaeological Survey of India

1. Debala Mitra, *Buddhist Monuments*, Sahitya Samsad, Calcutta, 1971, p.8

of Kapilavastu; the Bulis of Allakappa; the Koliyas of Ramagrama; the Mallas of Pava; the Mallas of Kusinagara and a Brahman of Vethadipa in order to erect the *stūpas* over them. Drona kept himself the urn in which the mortal remains of Buddha had been collected and divided and erected a *stūpa* over it. After the event, a messenger of the Mauryas of Pippalivana came and he took the embers/ashes over which the Mauryas erected a *stūpa*. Thus, there came into existence eight *stūpas* at Rajagriha, Vaisali, Kapilavastu, Allakappa, Ramagrama, Vethadipa, Pava and Kusinagara over the corporeal remains, the ninth over the urn and the tenth over the embers. (*Figure No.1*)

In addition to the *stūpas*, there are many other Buddhist relics such as *vihāras* (monasteries), *chaityas*, rock-cut caves, temples, sculptures, bronzes, paintings, etc., spread all over India. Monasteries had already come into existence during the lifetime of the Buddha, to provide shelter to Buddha and his disciples during the rainy seasons. Monasteries were built by his devotees and admirers at some of the important centres of his activities, such as Rajagriha, Sravasti, Kausambi and other places. The Buddhist *Stūpas* are broadly classified into four categories. (i). *sārīrika*, (ii). *pāribhogika*, (iii). *uddeśika* and (iv). Votive. The *sārīrika stūpas* are those which erected over the corporal relics of the Buddha or his direct disciples or Buddhist saints. *Pāribhogika* was built over the objects to have been used by the Buddha, like the begging-bowl, robe, etc. *Uddeśika* was commemorative of the incidents of Buddha's life, including those of his previous births, or spots hallowed by his presence. Votive *stūpas* are small in size, mostly erected by the pilgrims when they visited the sacred sites for attaining religious merit.

The earliest Buddhist monuments, however, cropped up in Bihar and Uttar Pradesh in India and in the Nepalese Tarai, which witnessed the major event of the Buddha's life and his activities. (*Figure No.2*) With the passage of time, Buddhism goes beyond the boundaries of its cradle-land, in the extension of the geographical horizon. Emperor Ashoka (circa 273-236 BCE) took a leading role for the dissemination of Buddhism within India and abroad. He was responsible for the erection of a large number of Buddhist edifices throughout his region and his exposition of the merits of

non-violence, tolerance, justice, charity, purity, truthfulness, etc., were inscribed on the rocks and pillars for the edification of the people. He had also sent missionaries to various regions, including *Yavana* (Greek), Sri Lanka and Suvarnabhumi (Southeast Asia) for propagating the Buddha's teachings. Emperor Ashoka is said to have opened up seven out of eight original *stūpas* built over the corporeal remains, and distributed the relic contained therein among innumerable *stūpas* erected by him throughout his empire. (*Figure No.3*)

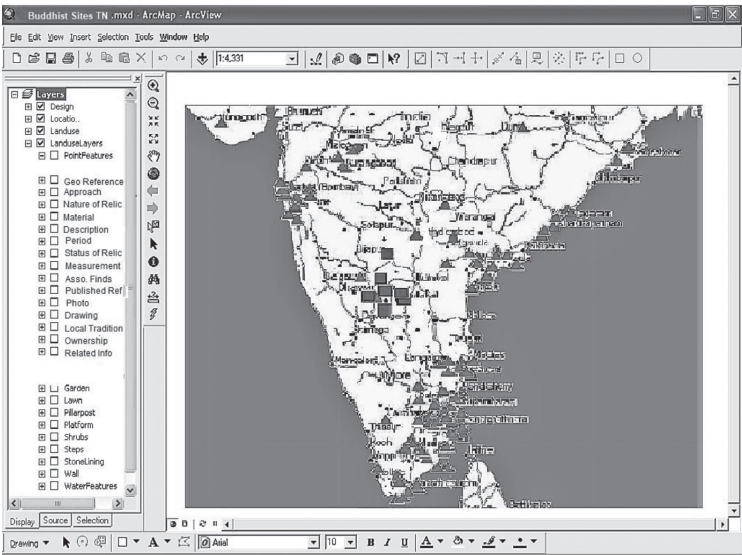
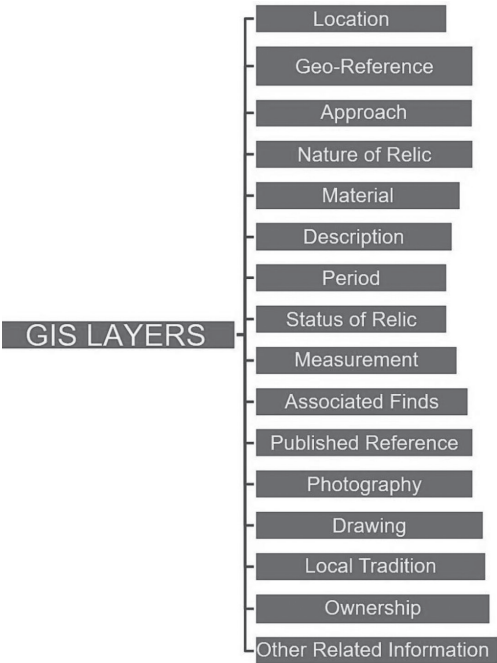
Owing to the proselytizing work of Emperor Ashoka and some of the rulers of the subsequent periods and the merchant communities and lay devotees, Buddhism spread not only throughout the length and breadth of India, but also in Sri Lanka and some other parts of Asia. The existence of hundreds of rock-cut caves and structural edifices of Buddhist affinity in the western India testify the fact that Buddhism was extensively patronized in this region. There are also a large number of Buddhist *stūpas*, *chaityas*, *vihāras*, rock-cut caves and temples in the central, northern and eastern India. However, it is generally believed that the Buddhist activities were minimal in the southern India and hardly there is any Buddhist relics in the southernmost part of India, particularly Tamil Nadu. Surprisingly, the intensive explorations carried out by the author and his team all over Tamil Nadu has brought to light more than 100 sites yielding Buddhist relics in the form of structures, excavated remains, sculptures, bronzes, paintings, terracotta figurines, inscriptions, ancient mounds, etc. All the Buddhist vestiges have been meticulously documented and geo-registered with the use of GPS². Digital map has been created by accurately plotting of all the sites. Mapping of the Buddhist sites not only revealed the distribution of the Buddhist sites in Tamil Nadu and Pondicherry but also enable to identify the focal centres of Buddhism in this area.

An Integrated digital database of the Buddhist sites in Tamil

2. D. Dayalan "Digital Documentation of Buddhist Sites in Tamil Nadu," in Stefano Campana, et.al. (eds.) *Space, Time, Place: Third International Conference on Remote Sensing in Archaeology*, 17th – 21st August 2009, Tiruchirappalli, Tamil Nadu, India, British Archaeological Reports (BAR) International Series 2118, Oxford, 2010, pp. 215-219; D. Dayalan, *Buddhist Remains of South India*, Sterling Publications Pvt. Ltd, Delhi, 2017

Nadu and Pondicherry on the designated GIS platform is created after survey of the sites. Since the GIS is the compatible tool for storing, managing, processing and reproducing volumes of data, it is used to interpret the data derived from various sources more accurately by integrating them.

The data incorporated in the GIS are:



View showing the ArcMap of all the Buddhist Sites of Tamil Nadu and the list of Layers in the Table of Contents and other icons.

All the details of a Buddhist site known as Ariyankuppam along with photographs

While plotting the ancient Buddhist sites of India in general and southern India in particular on the map, an interesting phenomenon has emerged. The concentration of a majority of the Buddhist sites is in the coastal areas and on the trade-routes. Enthrallingly these sites were also seemed to be the hub of maritime and local trade in the early period. Some of the sites are also known for their political prominence. It is not just coincidental, but probably there was a strong link between traders and trade centres and Buddhism. Kaverippumpattinam and Nagappattinam are a few of the many similar sites in Tamil Nadu, which exhibit the nexus between Buddhism and maritime trade.

Kaverippumpattinam (Tamil Nadu), an important port city of the Cōlas of the Saṅgam period (2nd BCE - 2nd CE), is situated on the confluence of the river Kāvēri in the Bay of Bengal. This city was referred to by Ptolemy as “Kaberis Emporion”, whereas *Periplus Mari Erythraei* as “Camara”. Tamil literatures of 1st- 2nd centuries CE gives a vivid account of this port city, its harbour, sailors, merchants, merchandise, etc. They also speak of a tall lighthouse on the coast, *yavanar-irukkai* (colony of foreign traders), etc. A poem from the 1st-2nd centuries CE states that big ships entered the port without slacking their sails and poured out on the beach precious merchandise from different overseas countries and also other ports of India.³ At Kilaiyur, a suburb of Kaveripumpattinam a massive brick platform of 3rd-2nd centuries BCE was brought to light with the remnants of wooden posts. The structure was very likely represented a wharf in the backwaters where boats could have been anchored to the wooden posts.

This metropolis was not only famous for its seafaring activities, but also well known in times of yore as a glorious centre of Buddhism. Many texts indicate the existence and perhaps the prosperous

3. Pattintinappālai, line: 185-192.

condition of the Buddhist establishments at Kaverippumpattinam.⁴ There are literary references to the Buddhist monasteries called seven *Intira vihāras* in this city.⁵ These *vihāras*, as referred to in the Tamil work called *Silappatikāram* (c. 5th -6th centuries CE), were not constructed by hand or machinery, but was a mind-born institution.⁶ It further mentions that Indra caused these sacred seven *vihāras* to be built near the *Mahābōdhi* tree, sacred to Buddhist in the city of Pukar (Kaverippumpattinam).⁷ *Manimēgalai*, a Tamil epic of 5th-6th centuries CE speaks of a small pavilion made of crystal in a park called Upavaṇa. A replica of the Buddha's footprint was worshipped there. *Manimēgalai* also states that Killivalavan, a Cōla king converted the prison into a Buddhist monastery at the request of the nun Manimekalai. There existed in the same city, the Cakkaravāliakkōttīam, a Buddhist temple near the burial ground. There was a small Buddhist temple called Kuccarakkutikai which enshrined Goddess Campāpati. Campāpati was considered to be the tutelary deity of the Buddhist at Kaverippumpattinam. It was mentioned that Buddhadatta composed *Abhidhammavatara* in the 5th century CE while he was staying in the monastery built by Kanhadasa at Pukar (Kaverippumpattinam).

Excavations carried out in a locality known as Pallavanecuvaram, a suburb of Kaverippumpattinam yielded an excellent evidence about the existence of Buddhist *vihāra*, Buddhist temple and many other Buddhist edifices of 5th-6th centuries CE.⁸

Nagappattinam, an ancient port city in Tamil Nadu, was referred to as Nikama by Ptolemy, Nagavadana by I-Tsing, Pa-tan by Marco Polo, Malifattan by Rashiduddin and Navutapattana in the Kalyani inscriptions of Dhammaceti (1476 CE). This city was also remained as a significant seaport as well as an important centre of Buddhism for quite a long time. The close association of this

4. *Manimēkalai*, *Silappatikāram*, *Makāvaṇṇa*, *Abidammavatara*, *Buddha vāmcatta*, *katā*, etc.

5. *Silappatikāram*, canto. 10. *Nātu kāṇu kātai*, line 14, canto. 27 *Nirppatuaik kātai*, line 92; *Manimēgalai*, canto. 26 *Vāñcimānakar pukka kātai*, line 55.

6. *Silappatikāram*, canto. 27. *Nirppatuaik kātai*, line 92.

7. *Silappatikāram*, canto. 10. *Nātu kāṇu kātai*, line 11-14.

8. K.V. Soundararajan, *Kaveripattinam Excavations 1963-73 (A Port City on the Tamil Nadu Coast)*, Memoirs of the Archaeological Survey of India, No.90, New Delhi, 1994.

place with Buddhism is revealed through the discovery of hundreds of Buddhist bronze images ranging from the 9th century to 16th-17th centuries at many localities. As a result of maritime contacts between South India and China and Southeast Asian countries, there existed in Nagappattinam a colony of foreigners and also Buddhist temples and *vihāras*. During the reign of the Pallava king Narasimhavarman II (c. 700-728 CE), it seems, a Buddhist temple was constructed at Nagappattinam under the order of a Chinese king for the sake of perhaps the Chinese Buddhist who came to Nagappattinam from China for trade. The Śailendra rulers of the Srivijaya kingdom (which comprised of Sumatra, Java and Malaysia peninsula) were also constructed Buddhist temples and *vihāras* at Nagappattinam. The Larger Leyden copper plates of Rājārāja Cōḷa (985-1014 CE) records that a Buddhist *palilui* (temple) in the Culamanivarma vihāra was erected by the Kitara king Maravijayottuṅgavarman at Nagappattinam, perhaps for his subjects who settled at Nagappattinam for trade purpose.⁹ The Smaller Leyden copper plates of Kulōttuṅga Cōḷa I (c. 1070-1122) dated to 1090 CE records the exemption of certain taxes to the villages donated for two Buddhist *paliluis* at Nagappattinam at the request of the ambassadors of the king of Katīaram.¹⁰ It is worthy to mention that an inscription at Nalanda (Bihar state) records that the Śailendra king Balaputradeva built a monastery there in the 9th century CE and at his request the king Devapala of Bengal endowed villages for its upkeep.

Since Nagappattinam was an important port city as well as a Buddhist centre many traders, pilgrims and travellers from various countries visited this place. *Da tang xi yu qiou fa gao seng zhuan* written by venerable Yi-Jing during the T'ang dynasty (c. 690-691 CE) mentions about thirty-nine Buddhist monks came to India through the south sea during the T'ang dynasty period and visited Nagappattinam perhaps to see the Buddhist centres there. The description of a place called Tuta meaning an "earthen tower" in the flat land of Patian (Nagappattinam) in the *Daoyi Zhilue* refers to the existence of a brick tower and also mentioned that the Chinese people

9. *Epigraphia Indica*, Vol. XXII (1933-34), 1984, pp.213-266.

10. *Epigraphia Indica*, Vol. XXII (1933-34), 1984, pp.267-281.

came to Tuta and engraved the inscription in c. 1267 CE. Marco Polo of Venice visited Nagappattinam in the 13th century on his way to China and describes an earthen *stūpa* and Chinese inscription in the flat land of Pa-tan (Nagappattinam). The existence of Buddhist edifice constructed by the king of China at Nagappattinam is also attested to by the Kalyani (Myanmar) inscription (1476 CE) of Dhammaceti, the king of Pegu. According to the inscription, a group of *theras* visiting Ceylon, being shipwrecked, travelled on foot to Nagappattinam and there they visited the site of the Patarikarama monastery. They worshipped an image of the Buddha in a cave constructed at the behest of the Maharaja of Cinadesa. It is well known that a broken brick tower, locally known as “China Pagood” had been standing in Nagappattinam till 1867 was closely similar to the multi-storied brick pagoda of China in character.

1. NEXUS OF BUDDHISM AND TRADE

Geo-registration and *digitization* of the Buddhist sites in India divulge that the trade routes, both maritime and overland, were the primary means by which Buddhist thought and imagery were conveyed from India to various parts of the Asian continent and beyond. The archaeological evidences and the literary sources also vividly elucidate the vital role of the maritime interface for the exchange of Buddhist religious thoughts, missionaries and materials from India to Śri Lanka, China, Korea, Vietnam, Myanmar and Asian countries and vice versa.

The Ganges delta and its dense fluvial network opening out into the sea at many outlets afforded ample opportunity for international interaction of pilgrims and traders. Tamul (Tamralipti) was one such port had played a vital role for international transactions. Since Tamralipti was the nearest seaport for visiting the prime centres of Buddhism, such as Bodh-Gaya, Nalanda, Rajgir (Rajagriha), Sravasti, Pataliputra, Sarnath, Kausambi, Lumbini, Kusinagara, Vaisali, Vikramsila, Kapilavastu, Sankisa (Sāṃkasya), etc., in the Gangetic basin, the Buddhist travellers from different parts of the world who came by sea-route landed here and from there they went to various places. (Figure No. 4)

Mahāvamsa, the Sri Lankan Chronicle, mentions that the

sapling of the great Bodhi-tree from India was brought through the sea-route by *Mahatheri* Sanghamitta accompanied with eleven *bhikkunis* through the ship. The mission probably started from Tamralipti port. *Mahatheri* Sanghamitta was supposed to have inaugurated the *bhikkuni-sasana* in Śrī Lanka. During the reign of Mahanama, the Śrī Lankan *bhikkunis* were dispatched to China in 429 CE to establish the *bhikkuni-sasana* by a ship owned by one Nan-t'i (Nandi), who might have been a South Indian. Hemamala in the company of her husband from Dantipura in Kalinga was said to have brought the Tooth Relic to Śrī Lanka in a trading vessel which sailed directly from Tāmralipti during the reign of Sirimeghavanna (301-327 CE).

The majority of the Buddhist sites in the western India, which are hundreds in number, were also generally connected with any one of the sea-ports on the coast of the Arabian Sea. The important seaports of them are: Barygaza (Broach), Surparaka or Suppala (Sopara), Semylla (Chaul), and Calliena (Kalyan), all of them are also renowned for their Buddhist vestiges. In fact, the majority of the Buddhist sites of the early centuries in India in general and western India in particular are located on the key trade routes as there were nurtured basically by the local and foreign merchant communities. (**Figure No. 5**) Some of the notable Buddhist sites in the western India located on the trade route are: Bhaja, Bedsa, Karla, Junnar, Kondane, Kondivite, Kanheri, Kuda, Nasik, Pitalkhora, Ajanta, Aurangabad, Ellora, Ghatotkacha, Bhandara, Kol, Karadh, Mahad, Lonad, Nadsur, Karsambla, Sopara, Bhon, Pauni, Mansar, Adam, Ter, Devnimori, Sana, Talaja, Junagadh, Vadnagar, etc.

2. IMPACT OF BUDDHIST PILGRIMS

The spread of Buddhism from India to Śrī Lanka, China, Korea, Japan, Vietnam, Myanmar and other Asian countries triggered a profusion of cross-cultural exchanges between India and those countries. The Buddhist monks from those countries were quite often visited India on pilgrimage right from the day of introduction of Buddhism in their soil. It seems that the maritime traders often brought along with them in their long voyages the monks who served as priests, physicians as well as sorcerers. The Buddhist University

at Nalanda was a world-famous Buddhist learning centre and large numbers of Buddhist monks and followers from various parts of the globe stayed and studied in this university. There are a lot of inscriptions from 2nd century BCE and onwards found at Mahabodhi (Bodh-Gaya) records about the donations by Buddhist pilgrims from Sri Lanka, Myanmar, China, Vietnam and other countries.

The travels of Buddhist monks and pilgrims and the simultaneous sharing of religious texts and relics, indeed, stimulate the interactions between the Indian kingdoms and various regions. This network also fostered the trade activities between these regions. The accounts of the spiritual journeys of the Buddhist monks to India are valuable to understand the status of the Buddhist establishments and the socio-economic condition of India during their visit. Furthermore, these accounts also throw light on the ancient land and maritime trade routes, arduous nature of long-distance travel, commercial exchanges, and the relationship between Buddhist pilgrims and itinerant merchants. Faxian's narrative of his voyage on the mercantile vessels, although marked by near-catastrophic experiences due to the ravages of the sea, demonstrates the relationship between Buddhist monks and itinerant traders as well as the existence of maritime trading channels linking the coastal regions of India and China. It is also evident from Faxian's account that maritime travel between South Asia and China was perilous and the navigational techniques extremely rudimentary.

One of the earliest Buddhist pilgrims, mentioned to have attempted to visit India, was Tchou Che-hing, a native of the modern province of Ho-nam. He left his homeland for Khotan about 260 CE and died there without being able to reach India, which he had his goal. Faxian, Xuan-zang and Yi-jing were among hundreds of Buddhist monks from China, Korea, Vietnam and other Asian countries who made pilgrimages to India during the first millennium CE. It appears, Buddhism was introduced into what was in those times known as Giao-Chi (present North Vietnam) by the monks who came from India and China by land and sea-routes. During the reign of Si-Nhiep or Shiti Hsieh (187-226 CE), Giao-Chi had grown up as an important Buddhist centre with the affluence of the Indian merchants trading in that area.

3. ROLE OF TRADE AND TRADERS IN ESTABLISHMENT OF BUDDHIST CENTRES IN INDIA

As stated elsewhere that many of the Buddhist centres in India were happened to be an important maritime trade centres or located on the major trade routes. Apparently, the trade and traders both local and foreigners had played an incredible role in promoting these Buddhism centres. Furthermore, Buddhist monasteries provided accommodation and health care to the long-distance traders, many of whom reciprocated by giving donations to the monastic communities. There are many religious institutions and colonies in India, which were either established or patronized by the foreign traders or rulers who came in contact with these centres through trade. Likewise, the South Indian traders and merchant guilds such as *Ainūrruvar*, *Manigramam*, *Nanadēsi*, *Padineni-vishayam*, *Padineni-bhūmi* and *Añjuvaniniam* had also played a significant role in establishing/patronizing the religious establishments abroad as well as in India.¹¹

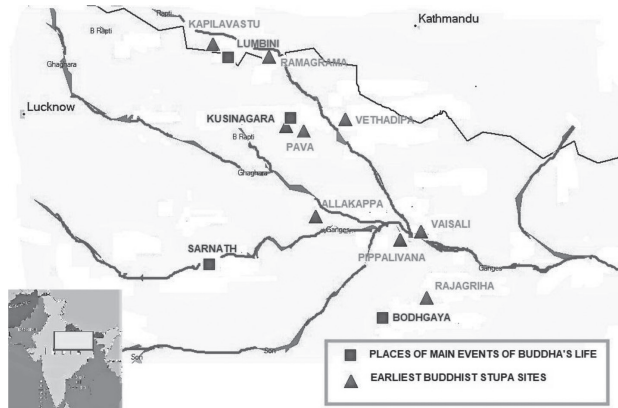


Fig.1. Map Showing the Places of Main Events of Buddha's Life & Earliest Buddhist Stupa Sites

11. D. Dayalan, "Role of Trade and Tamil Traders in Promoting Buddhism", D. Dayalan (ed.) *Sivasri: Perspective in Indian Archaeology, Art & culture (Birth Centenary Volume of Padma Bushan Dr. C. Sivaramamurti and Padma Bushan Sh. K.R. Srinivasan)*, Agam Kala Prakashan, Delhi, 2013, pp. 15-34; D. Dayalan, "The Role of Archaeology in the Study of Maritime Buddhism in India", *The Maritime Silk Road and Seaport Cities*, Sunin Publishing, Seoul, 2015, pp. 233-266.



Fig.2. The notable Buddhist Pilgrimage Centres in India



Fig.3. Buddhist Stupa of 3rd-1st cent BCE, Sanchi

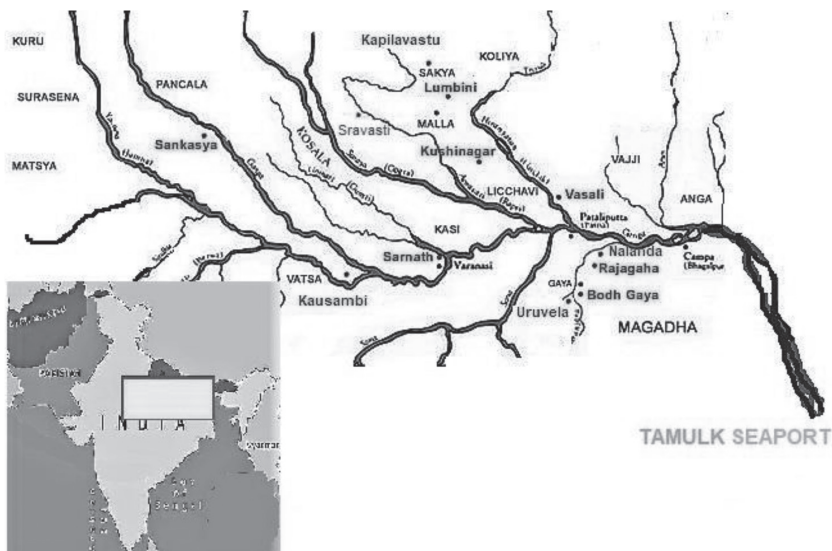


Fig.4. Buddhist Pilgrim Centres in the Gangetic Basin

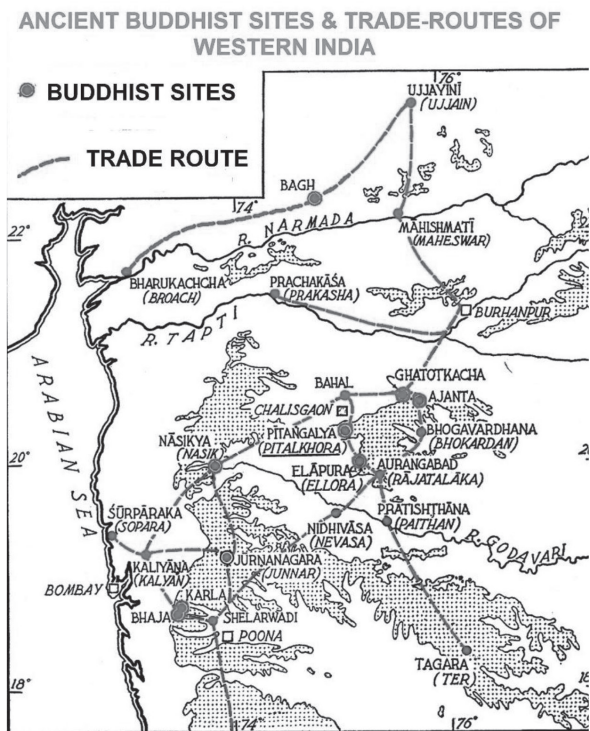


Fig.5. Ancient Buddhist Sites & Trade-Routes of Western India

