ISSN: 2755-0109

Journal of Media & Management

SCIENTIFIC Research and Community

Research Article

Open Access

The Evolution of Buddhist Archaeology and the Philological Shift Toward Sanskrit: A Socio-Architectural, Epigraphic, and Comparative Linguistic Monograph

Yajnadev Sharma

Principal and Head, Department of Sanskrit, Government Girls Degree College Sardhana, Meerut, India

ABSTRACT

This monograph examines the structural evolution of Buddhist material culture alongside the linguistic transformation of the Buddhist canon from early Middle Indo-Aryan (MIA) vernaculars—primarily Magadhi Prakrit, Gandhari, and Pali—to Buddhist Hybrid Sanskrit (BHS) and Classical Paninian Sanskrit (Laukika Saskta).

Synthesizing archaeological evidence (stūpa architectural morphology, epigraphic records, and rockcut monastic spaces) with detailed philological analysis, this study demonstrates how Sanskritization reflected institutionalization, patronage dynamics, and philosophical systematization.

Special analytical focus is given to the archaeological landscape of Rajasthan (specifically Bairat/Virāanagara, Nagari, Lalsot, and Kholvi), representing crucial geographical zones where early Prakrit epigraphy and timber-reinforced circular stūpa architecture directly interacted with early imperial patronage.

By comparing Pali/Prakrit phonological rules with Paninian grammatical derivations (Aādhyāyī), this paper demonstrates that the linguistic shift from vernaculars to Classical Sanskrit directly mirrored the spatial evolution of Buddhist sites from rustic, timber-reinforced earthen mounds to permanent, highly decorated stone and brick mahāvihāras.

***Corresponding author**

Yajnadev Sharma, Principal and Head, Department of Sanskrit, Government Girls Degree College Sardhana, Meerut, India.

Received: October 12, 2026; **Accepted:** October 16, 2026; **Published:** October 27, 2026

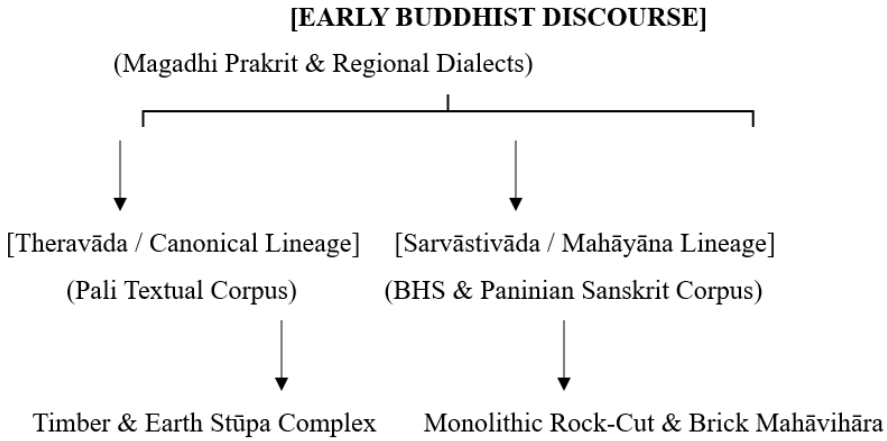
Introduction and Philological Background

Early Buddhism prioritized direct accessibility, propagating its teachings in regional vernacular dialects. In the Cullavagga (V.33.1) of the Vinaya Piṭaka, two Brahmin-born monks, Yameḷu and Tekula, express concern that monks of diverse origins are corrupting the Buddha's words, and request to translate them into formal Vedic Sanskrit meter (chandas):

anujānāmi bhikṣave sakāya niruttiyā buddhavacanaṁ pariyāpuṇitum.

(Vinaya Piṭaka, Cullavagga V.33.1)

Textual Translation: "I allow you, O monks, to learn and master the word of the Buddha each in his own dialect (sakāya niruttiyā)."



This structural rejection of Vedic Sanskrit (chandas) served as a social and institutional strategy during the 6th–3rd centuries BCE. However, between the 1st century BCE and the 5th century CE, Buddhist communities systematically converted their texts and public inscriptions into Classical Paninian Sanskrit.

This linguistic migration accompanied a parallel shift in Buddhist material culture: the transformation from temporary wood-and-brick architecture to permanent stone and brick monastic universities (mahāvihāras).

Comparative Linguistic Framework: Pali, Middle Indo-Aryan Prakrits, and Paninian Grammar

To understand the philological transition, we must analyze the structural grammatical shifts between Pali/Prakrit vernaculars and Classical Paninian Sanskrit.

[IND-ARYAN PHONOLOGICAL TRANSITION]

Vedic / Classical Sanskrit (Vowel & Consonant Clusters)

↓

Prakrit & Pali Assimilation (Samyuktākṣara Reduction)

↓

Buddhist Hybrid Sanskrit (Re-Sanskritization / Hyper-Correction)

Phonological Assimilation (Saṁyuktākṣara-Lopa)
Pali and Middle Indo-Aryan Prakrits systematically simplify complex Sanskrit consonant clusters (saṁyuktākṣara). Grammatically, while Sanskrit uses assimilation rules governed by Paninian euphonic combination (sandhi), Middle Indo-Aryan obeys strict progressive and regressive assimilation laws.

Progressive & Regressive Assimilation of Conjuncts
According to Panini's Aṣṭādhyāyī, the formation of consonant conjuncts involving r (repha) follows rules of saṁyoga:

halo'nantarāḥ saṁyogaḥ (Aṣṭādhyāyī 1.1.7)
In Pali and Prakrit, the repha (r) is dropped, and the remaining consonant is geminated (dvitva).

Vocalic Shift of \bar{r} (Ṛkāra-Lopa)
The vocalic \bar{r} (ṛ) of Classical Sanskrit does not exist in Pali or Prakrit, resolving instead into a, i, or u:

Textual Proofs from Pali Canon vs. Sanskrit Counterparts
Example 1: The Dhammapada vs. The Udānavarga

A direct comparison between the Pali Dhammapada and its Sanskritized northern counterpart, the Udānavarga, reveals this grammatical shift in verse construction:

***Pali Dhammapada* (*Verse 1*):**
manopubbaṅgamā dhammā manoseṭṭhā manomayā .
manasā ce paduṭṭhena bhāsati vā karoti vā. tato naṁ dukkhamanveti me kassaṁ va vahato padaṁ.

***Sanskrit Udānavarga* (*31.23*):**
manaḥpūrvvaṅgamā dharmā manaḥśreṣṭho manomayāḥ. manasā hi praduṣṭena bhāṣate vā karoti vā. tatastaṁ dukkhamanveti cakraṁ vā vahato padam.

[COMPARATIVE PHILOLOGICAL BREAKDOWN]

Pali Form	Sanskrit Form	Grammatical Shift / Rule Applied
dhammā	dharmāḥ	Assimilation of 'rm' cluster; retention of Visarga
seṭṭhā	śreṣṭhaḥ	Restoration of sibilant 'ś' and conjunct 'ṣṭh'
paduṭṭhena	praduṣṭena	Re-introduction of prefix 'pra-' and retroflex 'ṣṭ'
cakkaṁ	cakraṁ	Restoration of semi-vowel 'r' in conjunct 'kr'

The Prakrit Era: Timber Architecture, Early Epigraphy, and Regional Evidence from Rajasthan

Architectural Morphology and Early Stūpa Construction

During the Mauryan and Early Śuṅga periods (3rd–2nd Century BCE), Buddhist architectural sites were primarily built with perishable materials:

* Aṇḍa (□□□□□□): Unbaked or low-fired mud-brick hemispherical mounds containing sacred relics (dhātu).
* Vedikā (□□□□□□): Wooden perimeter fences that regulated ritual circumambulation (pradakṣiṇā).
* Harmikā and Chatra (□□□□□□□ □□□ □□□□□□): Simple wooden superstructures symbolizing sovereign and spiritual authority.

CROSS-SECTION OF EARLY TIMBER-MORTISED STŪPA

[Chatra] (Umbrella)

|

[Harmikā] (Square Balustrade)

(Aṇḍa)

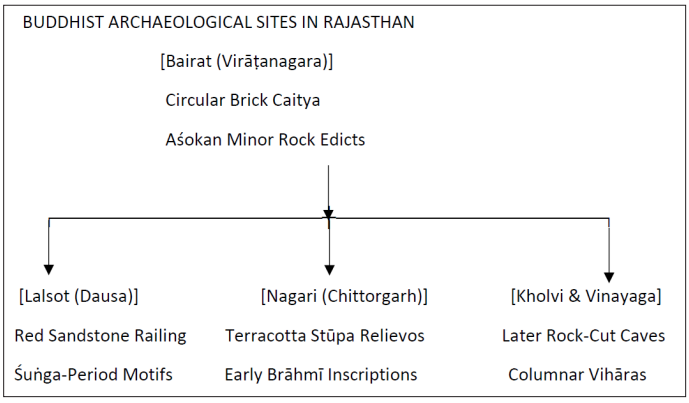
Hemispherical

Mound

[Medhi] (Terrace)

[Wooden Vedikā]

Buddhist Archaeological Landscape in Rajasthan
Rajasthan holds some of the most critical structural and epigraphic evidence documenting early Buddhism's spatial and textual development.



Bairat (Virāṭanagara, Jaipur District)
Excavated on Bijak-kī-Pahāḍī at Bairat, this site features one of the earliest surviving circular temples (caityagṛha) in South Asia.

Architectural Layout: The temple consists of an inner circle of 26 octagonal wooden pillars surrounding a brick stūpa, enclosed by an outer circular brick wall forming a circumambulatory path (pradakṣiṇāpatha).

Bhabru / Bairat Minor Rock Edict: Inscribed on a granite block, Emperor Aśoka addresses the Buddhist Order (Saṅgha) in Eastern Prakrit:

priyadasi lājā māgadhe saṁghaṁ abhivādetvāna āhā apabādhataṁ ca phasuvihārataṁ cā. (Bairat Edict, Line 1)

etāni bhaṁte dhammapaliyāyāni — vinayasamukase, aliyavasāṇi, anāgatabhayāni, munigāthā, moneyasūte, upatisapasine, ecā lāhulovāde musāvādaṁ adhigicchiya bhagavatā buddhena bhāṣite. (Bairat Edict, Lines 3–5)

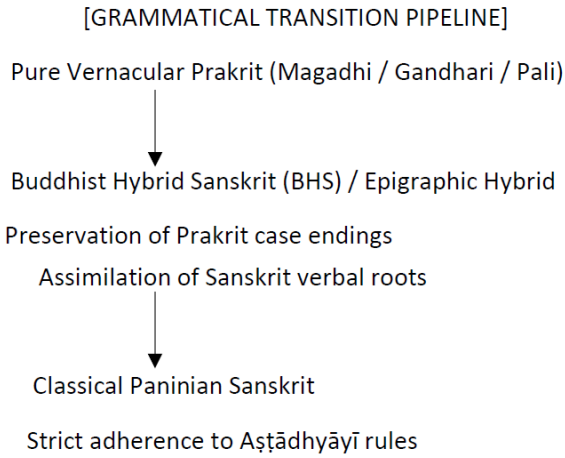
Textual Meaning: "These passages on the Law, O Venerable Sirs—namely, the Vinayasamutkarṣa (Exaltation of Discipline), Āriyavaṁsa (Noble Lineages), Anāgatabhaya (Future Dangers), Munigāthā (Stanzas of the Sage), Mauneyasūtra (Discourse on Quietude), Upatisapasina (Questions of Upatissa), and the Rāhulovāda (Exhortation to Rāhula concerning Falsehood) spoken by the Blessed Buddha— these I desire that many monks and nuns should constantly hear and remember."

Lalsot (Dausa District)
Explorations at Lalsot uncovered carved red sandstone railing pillars (vedikā-stambha) belonging to a 2nd century BCE Stūpa complex, featuring lotus medallions (phulla-padma) closely paralleling Śuṅga decorations at Bharhut.

Nagari (Chittorgarh District)
Ancient Madhyamikā yielded terracotta stūpa relievos and votive inscriptions proving that regional artisan guilds in Southern Rajasthan manufactured Buddhist narrative panels prior to working in structural stone.

Kholvi, Vinayaga, and Pagaria (Jhalawar District)
Representing late Buddhist rock-cut architecture in Rajasthan (5th–7th century CE), these sites contain monolithic stupas, pillared vihāras, and sculpted Buddha figures carved directly into laterite rock faces, marking the transition toward structural permanency in Western India.

The Transitional Era: Buddhist Hybrid Sanskrit (BHS) and Kuṣāṇa Art



Morphological Characteristics of BHS
Under the Kuṣāṇa Empire (1st–3rd Century CE), a transitional linguistic medium emerged: Buddhist Hybrid Sanskrit (BHS). Texts like the Lalitavistara, Mahāvastu, and Divyāvadāna display a hybrid morphology where Prakrit syntax is inflected with Sanskrit vocabulary.

Case Endings and Inflectional Hybridity

In Classical Sanskrit, the locative singular of Bhagavat is Bhagavati. In BHS, it frequently appears as Bhagavanto or Bhagavatami:

evaṁ mayā śrutamekasmin samaye bhagavān śrāvastyāṁ viharati jetavane anāthapiṇḍadasyārāme.
(*Lalitavistara, Chapter 1*)

Panini's rules governing nominal declension (subanta) state:
svādiṣvasarvanāmasthāne (Aṣṭādhyāyī 1.4.17)

svaujasamauṭchaṣṭābhyāmghisṅebhyāmbhyesṅasibhyāmbhye sṅasosāmṅyossup (Aṣṭādhyāyī 4.1.2)

BHS texts violate strict Paninian declensions (subanta) by incorporating vernacular terminations onto Sanskrit nominal stems.

The Mahāyāna Flourishing and Classical Paninian Sanskrit Philosophical Textual Tradition
With philosophers such as Nāgārjuna, Asaṅga, Vasubandhu, Diṅnāga, and Dharmakīrti, the Buddhist tradition fully adopted Paninian Sanskrit to engage in philosophical debates against Nyāya, Vaiśeṣika, and Mīmāṁsā scholars in royal courts.

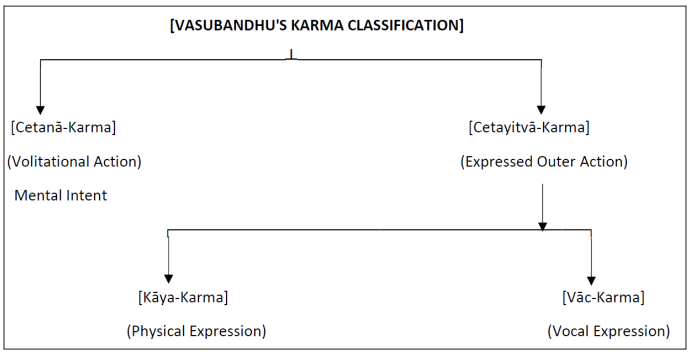
Nāgārjuna's Mūlamadhyamakakārikā:

na svataḥ nāpi parato na dvābhyāṁ nāpyahetutaḥ

utpannā jātu vidyante bhāvāḥ kvacana kecana
(Mūlamadhyamakakārikā, 1.1)

Grammatical Analysis: This verse follows strict Paninian syntax. The negative particles (na), adverbial suffixes (tasi-pratyaya via tasil rules), and verb forms (vidyante via divādibhyaḥ śyan - Aṣṭādhyāyī 3.1.69) strictly adhere to Classical Sanskrit grammar.

Vasubandhu's Abhidharmakośa:
kāyavāṅmanasāmeva karma dharmaḥ sanātanaḥ
cetanā cetayitvā ca tatkṛtaṁ vividhaṁ jagat (Abhidharmakośa, 4.1)



Epigraphic Sanskritization and Rock-Cut Architectural Permanence
As the Buddhist tradition embraced Classical Sanskrit, its architecture shifted toward permanent stone and brick masonry.

PLAN OF ROCK-CUT CAITYA-GṚHA
Garbha (Sanctum)
[Stūpa]
Pradakṣiṇā-Patha
(Colonnaded Aisles)
Mukhamaṇḍapa
(Entrance Porch)

Ajanta Cave 16 Inscription: High Classical Sanskrit Poetry
The Cave 16 inscription at Ajantā, commissioned by Varāhadeva (minister of the Vākāṭaka King Hariṣeṇa), is written in high Sanskrit Kāvya style using the Vasantatilakā meter:

amuṁ viśālaṁ varadevasañjño dharmoddeśena manaḥprasādam

khanitvā bhikṣusaṅghasya dadau sūryopamaprabham (Ajantā Cave 16 Inscription, Verse 21)

[PANINIAN GRAMMATICAL BREAKDOWN - AJANTA INSCRIPTION]

- **khanitvā ---> Root 'khanu~' (unearth) + ktvā suffix (Aṣṭādhyāyī 3.2.108)**
- **dadau ---> Root 'duḍāñ' (give) + liṭ lakāra, 3rd person, singular (Aṣṭādhyāyī 3.2.115)**
- **viśālam ---> Compound adjective: viśeṣeṇa śālate iti viśālam**

Nalanda Mahāvihāra and Classical Monastic Complexes
By the 5th–12th century CE, Buddhist education was concentrated in multi-story brick complexes (mahāvihāras) such as Nālandā, Vikramaśīla, and Valabhī.

LAYOUT OF NĀLANDĀ MAHĀVIHĀRA
North-South Alignment
Western Axis: Vihāras (Monastic Courtyards) Eastern Axis: Stūpas (Temple Shrines)

Nalanda Copper Plate of Devapāladeva
Sanskrit inscriptions recovered from Nālandā demonstrate complete mastery of Classical Paninian prose:

śrīmannālandā-śrīvihāra-parimaṇḍala-pratibaddha-grāmeṣu...

sarvamānya-parihāreṇa bhikṣusaṅghasya bhojana-cchādana-śayanāsana-glānapratyayabheṣajyādyarthaṁ tāmrapaṭṭaṁ kārayitvā dattam.
(Nālandā Copper Plate of Devapāladeva, Lines 33–36)

Comparative Synthesis of Other Period
Chronological Period | Epigraphic & Textual Language) Paninian Status (Aṣṭādhyāyī) |
Architectural Style & Material | Key Archaeological Sites

Mauryan Period
(3rd BCE) | Magadhi Prakrit,
Brāhmī Script | Non-Paninian, Vernacular Assimilation | Timber railings, mud-brick stūpas, circular caityas | Bairat (Rajasthan), Sarnath, Barabar Caves |

Śuṅga-Sātavāhana
(2nd BCE - 1st CE) | Middle Indo-Aryan Prakrit, Early Pali | Transitional Phonology, Cluster Reduction Stone rail replacements, relief panels, rock caityas | Lalsot (Rajasthan), Sanchi, Bharhut, Karle |

Kuṣāṇa Period
(1st CE - 3rd CE) | Buddhist Hybrid Sanskrit (BHS) | Hybrid Morphology, Metrical Deviations | Anthropomorphic Buddha statues, square platforms | Mathura, Gandhara, Nagari (Rajasthan), Amaravati |

Gupta & Post-Gupta
(4th CE - 12th CE) | Classical Paninian Sanskrit | Complete Grammatical Conformance | Multi-story brick mahāvihāras, structural temples | Nalanda, Ajanta, Kholvi (Rajasthan), Bodh Gaya |

Conclusion
The structural evolution of Buddhist sites from early wooden railings to the stone and brick architecture of Nālandā runs parallel to the linguistic evolution from vernacular Prakrit dialects to Classical Sanskrit [1-50].

Archaeological sites in Rajasthan—such as the circular timber-and-brick temple at Bairat, the Śuṅgaperiod railings at Lalsot, the terracotta reliefs at Nagari, and the late rock-cut caves at Kholvi—provide crucial spatial evidence of this transition.

By adopting Paninian Sanskrit, the Buddhist tradition transformed from a regional movement into a systematized philosophical tradition capable of engaging with Brahmanical intellectual centers and securing royal court patronage. The evolution of Buddhist architecture physically anchored this Sanskritized scholastic tradition, creating lasting monastic spaces across the South Asian landscape.

References

1. Sylvain Lévi (1907) Organization. Mahanasutralankar. Paris: Honoré Champion.
2. Kern H (1891) Ārya Śūra. Jātakamālā. Boston: Harvard University Press.
3. Swami Dwarikadas Shastri (1968) Dharmakīrti. Pramāṇavārtika. Varanasi: Bauddha Bharati.
4. Kern H, Bunyiu N (1912) Saddharmapuṇḍarīka-Sūtra. St. Petersburg: Imperial Academy of Sciences.
5. Lefmann S (1902) Lalitavistara: Life and Teachings of Śākyamuni. Halle: Buchhandlung des Waisenhauses.
6. Speyer JS (1903) Nāgārjuna. Mūlamadhyamakakārikā. St. Petersburg: Imperial Academy of Sciences.
7. Oldenberg H (1880) The Vinaya Piṭakaṁ: Vol. II (Cullavagga). London: Pali Text Society.
8. Otto Böhtlingk (1887) Pāṇini Aṣṭādhyāyī. Pāṇini's Grammatik. Leipzig: H. Haessel.
9. Cecil Bendall (1897) Shāntideva. Śikṣāsamuccaya: A Compendium of Buddhist Doctrine. Petersburg: Imperial Academy of Sciences 1897–1902 https://upload.wikimedia.org/wikipedia/commons/c/c5/Siksha-samuccaya_-_a_compendium_of_Buddhist_doctrine_%28IA_sikshasamuccayac00sant%29.pdf.
10. Cowell EB (1868) Vararuci. Prākṛta-Prakāśa. London: Trübner & Co.
11. Pradhan P (1967) Vasubandhu. Abhidharmakośabhāṣyam. Patna: K.P. Jayaswal Research Institute.
12. Fausbøll Viggo (1877) The Jātaka together with its Commentary. London: Trübner & Co. 1877-1896.
13. Trenckner Carl (1888) The Majjhima-Nikāya. London: Pali Text Society 1888-1899.
14. Feer Léon (1884) The Saṁyutta-Nikāya. London: Pali Text Society 1884-1898.
15. Morris Richard, Hardy E (1885) The Aṅguttara-Nikāya. London: Pali Text Society 1885- 1900.
16. Rhys Davids T W, Estlin Carpenter J (1890) The Dīgha Nikāya. London: Pali Text Society 1890-1911.
17. Brough John (1980) Sakāya Niruttiyā: Cauld Kale Het. In Die Sprache der ältesten buddhistischen Überlieferung, Göttingen: Vandenhoeck & Ruprecht 35-42.

18. Deshpande Madhav M (1993) Sanskrit & Prakrit: Sociolinguistic Issues. Delhi: Motilal Banarsidass.
19. Edgerton Franklin (1953) Buddhist Hybrid Sanskrit Grammar and Dictionary. New Haven: Yale University Press.
20. Hultzsch Eugen (1925) Inscriptions of Asoka. Corpus Inscriptionum Indicarum. Oxford: Clarendon Press 1.
21. Lüders Heinrich (1912) A List of Brāhmī Inscriptions from the Earliest Times to about A.D. 400 with the Exception of those of Aśoka. Epigraphia Indica. Calcutta: Government of India.
22. Norman KR (1997) A Philological Approach to Buddhism. London: School of Oriental and African Studies (SOAS).
23. Pollock Sheldon (2006) The Language of the Gods in the World of Men: Sanskrit, Culture, and Power in Premodern India. Berkeley: University of California Press.
24. Salomon Richard (1998) Indian Epigraphy: A Guide to the Study of Inscriptions in Sanskrit, Prakrit, and the other Indo-Aryan Languages. Oxford: Oxford University Press.
25. Sircar DC (1965) Select Inscriptions Bearing on Indian History and Civilization. Calcutta: University of Calcutta.
26. Upasak CS (1960) The History and Palaeography of Mauryan Brāhmī Script. Nalanda: Nava Nalanda Mahavihara.
27. Geiger Wilhelm (1943) Pāli Literature and Language. Translated by Batakrishna Ghosh. Calcutta: University of Calcutta.
28. Pischel Richard (1957) Comparative Grammar of the Prakrit Languages. Translated by Subhadra Jha. Delhi: Motilal Banarsidass.
29. Oberlies Thomas (2001) Pāli: A Grammar of the Language of the Theravāda Tipiṭaka. Berlin: Walter de Gruyter.
30. Sen Sukumar (1960) A Comparative Grammar of Middle Indo-Aryan. Poona: Deccan College. Archaeology, Regional Studies (Rajasthan), and Architecture
31. Agrawala RC (1968) Buddhist Remains in Rajasthan. Proceedings of the Rajasthan History Congress 2: 21-25.
32. Beal Samuel (1884) Si-Yu-Ki: Buddhist Records of the Western World (Translated from the Chinese of Hiuen Tsiang). London: Trübner & Co.
33. Coningham Robin, Ruth Young (2015) The Archaeology of South Asia: From the Indus to Asoka, c.6500 BCE–200 CE. Cambridge: Cambridge University Press.
34. Cunningham Alexander (1854) The Bhilsa Topes; or, Buddhist Monuments of Central India. London: Smith, Elder, and Co.
35. Dehejia Vidya (1997) Discourse in Early Buddhist Art: Visual Narratives of India. New Delhi: Munshiram Manoharlal.
36. Fogelin Lars (2015) An Archaeological History of Indian Buddhism. Oxford: Oxford University Press.
37. Huntington Susan L (1985) The Art of Ancient India: Buddhist, Hindu, Jain. New York: Weatherhill.
38. Knox Robert (1992) Amaravati: Buddhist Sculpture from the Great Stūpa. London: British Museum Press.
39. Marshall John, Alfred Foucher (1940) The Monuments of Sāñchī. Calcutta: Government of India Press.
40. Mitra Debala (1971) Buddhist Monuments. Calcutta: Sahitya Samsad.
41. Nath Amarendra (2012) Further Excavation at Nalanda (1994–2002). Archaeological Survey of India Memoir No. 101. New Delhi: ASI.
42. Sahni Daya Ram (1937) Archaeological Remains and Excavations at Bairat. Jaipur: Department of Archaeology and Museums, Government of Rajasthan.
43. Sankalia HD (1934) The University of Nālandā. Madras: B.G. Paul & Co.
44. Sarkar H (1966) Studies in Early Buddhist Architecture of India. New Delhi: Munshiram Manoharlal.
45. Schopen Gregory (1997) Bones, Stones, and Buddhist Monks: Collected Papers on the Archaeology, Epigraphy, and Texts of Monastic Buddhism in India. Honolulu: University of Hawai'i Press.
46. Spink Walter M (2005) Ajanta: History and Development. Leiden: E.J. Brill 2005-2014.
47. Zwalf Wladimir (1996) A Catalogue of the Gandhāra Sculpture in the British Museum. London: British Museum Press 2.
48. Brown Percy (1942) Indian Architecture (Buddhist and Hindu Periods). Mumbai: D.B. Taraporevala Sons & Co.
49. Fergusson James (1876) History of Indian and Eastern Architecture. London: John Murray.
50. Meister Michael W (1983) Encyclopaedia of Indian Temple Architecture: Part 1. New Delhi: American Institute of Indian Studies 1.

Copyright: ©2026 Yajnadev Sharma. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.