



Changes in the Function of the Ratu Boko Complex during the Medang Kingdom (8th-10th Century AD)

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Keyword: Medang Kingdom; Ratu Boko Complex; Sailendra Dynasty; Sanjaya Dynasty

ABSTRACT

The Ratu Boko complex in Yogyakarta, Indonesia, has become a hot topic among academics regarding its original function. This study aims to analyze the diachronic functional changes of the Ratu Boko complex during the Medang Kingdom (8th–10th centuries CE) by integrating epigraphic evidence, spatial layout, and socio-political context. Using historical methods and a qualitative approach, this study is based on primary sources (the Abhayagirivihāra and Siwagrha inscriptions), archives from Leiden University's Digital Collections, and secondary sources, complemented by direct observation at the Ratu Boko complex. The findings of this study indicate that the complex underwent two distinct phases. The first was a Buddhist monastery founded by Rakai Panangkaran of the Śailendra Dynasty around 792 CE as a spiritual retreat for the retired king, as evidenced by the presence of Dhyani Buddha statues and stupika. Second, the Hindu palace was strengthened and transformed by Rakai Pikatan of the Sanjaya Dynasty after 856 AD, as evidenced by the existence of a stone fortress, paduraksa gate, pendapa, paseban, burning temple, Durga and Garuda statues, and linga-yoni. This study concludes that the conversion of the Ratu Boko complex was not merely an architectural change, but also an intended political legitimization strategy, which included aspects of military struggle, symbolic revitalization, and a political marriage between Rakai Pikatan and Pramodhawardhani.

1 | Introduction

The Medang Kingdom, better known as the Ancient Mataram Kingdom, was one of the most influential political entities in classical Indonesia (Maziyah, 2012). Ruling Central Java between the 8th and 10th centuries AD, it left an extraordinary architectural legacy, ranging from Hindu-Buddhist temples to elite residential sites across the Prambanan Plain (Degroot, 1972). Among these remains, the Ratu Boko complex occupies a unique position and remains academically controversial. Unlike Prambanan or Borobudur, which clearly served as places of worship, Ratu Boko displays ambiguous architectural characteristics that are difficult to classify (Paraton et al., 1997).

Located on Boko Hill at 196 meters above sea level, the complex visually combines elements of military fortifications, such as thick andesite stone walls, with palace-like features, including paduraksa gates, open pavilions (paseban), structured stone pools, and a burning temple (homa-kunda) (Degroot, 2006; Soekmono, 1974). This hilltop settlement is one of the few of its kind from the classical period in Java (Kusen, 1995). Its unique topography raises fundamental questions: What was the original function of this complex? Why was this particular location chosen?

In Southeast Asian archaeological research, there has been a long-standing debate regarding the function of Ratu Boko, with two main contradictory hypotheses. The first, supported by the Abhayagirivihāra Inscription (792 CE), posits that the complex was originally established as a Buddhist vihāra (monastery). A vihāra is a residence for monks (saṅgha) that also served as a center for meditation and the study of sacred texts (Mochtar, 2015). The inscription explicitly mentions the founding of Abhayagirivihāra, meaning “vihāra on a hill free from danger”, by

Rakai Panangkaran of the Śailendra Dynasty (Casparis, 1956). He had renounced his worldly position to pursue a spiritual life as an ascetic (sannyāsin) (Hardani, 2010). According to Casparis (1956), the name was a conscious reference to the famous monastery in Anurādhapura, Sri Lanka, indicating an attempt to bring Theravāda Buddhist traditions into Javanese culture (Mochtar, 2009).

The second hypothesis, based on the Siwagrha Inscription (856 AD), argues that Ratu Boko functioned as a fortified Hindu palace. Found in the Prambanan Temple complex, this inscription mentions the construction of a stone fortress (prasāda), a gate, and a moat (parikha) as part of the residence of Rakai Walaing Pu Kumbhayoni (Boechari, 1976). Key terms such as purī (palace) refer to buildings associated with royal power, not sacred places of meditation (Nurmalitasari & Andina, 2023). The inscription also describes a major battle between Rakai Pikatan (Hindu Śiwa) and Balaputradewa (Buddhist) over the Śailendra throne (Boechari, 1976). The battle took place around Ratu Boko Hill and ended with Rakai Pikatan's victory and Balaputradewa's exile to Srivijaya (Casparis, 1956). Thus, the second hypothesis identifies Ratu Boko as a palace (keraton) and fortress belonging to the Sanjaya Dynasty. In Ancient Javanese context, a keraton was the center of political power, where the king governed, received envoys, and oversaw religious rituals (Kusen, 1995).

The controversy between these two hypotheses is not merely academic. It has broad implications for understanding the relationship between religious and political sites, as well as the mechanisms of dynastic transition in pre-modern Nusantara. Can a monumental site completely change its basic function, from a peaceful sanctuary to a palace and fortress? If so, what factors

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drove this conversion? These fundamental questions constitute a research gap that has not been adequately addressed.

To systematically map these gaps, a critical review of five key studies is necessary. The first study, by Johannes Gijsbertus de Casparis (1956), translated and analyzed the Abhayagirivihāra Inscription and identified Ratu Boko as a Buddhist monastery. However, his study focused almost entirely on philological analysis without systematically examining the architecture and spatial planning. As a result, he failed to explain how physical evidence, such as the open pavilion, structured pond, and military defense system, could align with a monastery's function of tranquility and isolation.

The second study, by Boechari (1976), analyzed the Siwagrha Inscription and linked it to the construction of a fort, gate, and moat at Ratu Boko. However, his study lacked a balanced discussion of the Buddhist period and ignored archaeological evidence of Buddhist activity, including Dhyani Buddha statues and stupika (miniature stupas). In other words, Boechari read the site synchronically, focusing only on the Hindu phase.

The third study, by Kusen (1994, 1995), attempted to reconcile these views by proposing a diachronic change in function from monastery to palace. This approach is more consistent with archaeological reality. However, Kusen's study remains descriptive and lacks rigorous spatial analysis of how specific building layouts were modified during the conversion. He also failed to explain the political and social mechanisms that enabled this change over six decades.

The fourth study, by Véronique Myriam Yvonne Degroot (1972, 2006), provided a valuable contribution through detailed architectural and landscape analysis. She identified various architectural features at Ratu Boko and compared them with contemporary sites in Southeast Asia. However, her research focused more on morphological description and architectural typology than on explaining the socio-political and religious factors behind the functional change. She also did not discuss the role of the political marriage between Rakai Pikatan and Pramodhawardhani (daughter of Samaratungga and granddaughter of Rakai Panangkaran), as an instrument of legitimacy in the transfer of the site from the Śailendra to the Sanjaya Dynasty.

The fifth study, by Víctor Lluís Pérez García (2016), conducted a comparative analysis between Ratu Boko and other fortress sites in Southeast Asia, such as Angkor Thom and Ho Citadel. This cross-regional approach is crucial for understanding Ratu Boko in a broader context. However, García's study overemphasized military defense aspects and neglected the religious and symbolic dimensions. He also did not explore how Buddhist elements from earlier phases persisted and interacted with later Hindu elements.

Based on the identification of these shortcomings, it can be concluded that no study has comprehensively, interactively, and diachronically analyzed the changing function of Ratu Boko by combining epigraphic evidence, spatial analysis, and socio-political context within a single coherent framework. Therefore, this study aims to fill this gap by analyzing the functional change of the Ratu Boko complex during the Medang Kingdom (8th–10th centuries AD) through the integration of these three dimensions. In doing so, this study bridges the gap between textual epigraphic analysis and material architectural analysis. It also contributes to the development of theories on power, religion, and landscape in pre-modern Nusantara, particularly regarding how new rulers utilized monumental sites from previous dynasties as a means of legitimizing power and consolidating hegemony.

2 | Metode

This research applies a historical method with a qualitative approach. The historical method was chosen because the purpose of this research is to reconstruct, interpret, and explain diachronically the changes in the function of the Ratu Boko complex during the Medang Kingdom (Ancient Mataram) between the 8th and 10th centuries AD. This reconstruction is based on relevant primary and secondary sources (Gottschalk, 1969; Kuntowijoyo, 2018; Yuwono et al., 2025). The qualitative approach was chosen because this research does not aim to measure phenomena statistically. Instead, it seeks to understand the meaning behind the changes in the site's function, including the political, social, and religious factors that underlie them (Moleong, 2017).

This research plan was systematically structured through four standard operational stages in historiography. These stages are heuristics (source collection), source criticism (verification), interpretation, and historiography (writing) (Sjamsuddin, 2020). These four stages were carried out sequentially and cyclically. This means researchers could return to previous stages if new sources were discovered or if source verification required additional data collection (Kartodirdjo, 1992). This research was conducted through observations at the Ratu Boko complex on May 20-21, 2026.

The sources for this research are divided into two main categories. First, textual sources consist of inscriptions issued by the rulers of the Medang Kingdom that had a direct connection to the Ratu Boko Complex. The main inscriptions that are the focus of this research are the Abhayagirivihāra Inscription (dated to 714 Śaka or around 792 AD) and the Siwagrha Inscription (dated to 778 Śaka or around 856 AD). Both inscriptions were obtained in critical and transliterated editions from publications by Johannes Gijsbertus de Casparis (1956) and Boechari (1976). In addition to these two main inscriptions, this study also targets other supporting inscriptions. These include the Kalasan Inscription (778 AD) and the Wanua Tengah III Inscription (908 AD). Although these inscriptions do not directly mention the Ratu Boko complex, they provide relevant context regarding the political, dynastic, and religious dynamics during the same period (Nastiti et al., 2024).

Second, the material sources are located in the Ratu Boko Complex itself. Specifically, these material sources include the three main terraces of the complex (lower, middle, and upper terraces). They also include the paduraksa gate, the pendapa (audience hall), paseban, the burning temple, the *keputren* area, the structured stone pool, the Lanang Cave, the Wadon Cave, and the remaining andesite stone fortress walls (Degroot, 2006; Kusen, 1995). The researcher's presence in this study is crucial and active. In the historical method and qualitative approach, the researcher serves as the primary instrument responsible for data collection, source verification, and direct interpretation (Westberg, 2025; Yuwono et al., 2026). The researcher was physically present at the site to conduct observations and visual documentation. The researcher was also intellectually involved in the process of searching for literature and analyzing the inscription text.

Data collection techniques in this study include literature study and observation. Literature study was conducted by tracing, collecting, and analyzing relevant written sources. These sources include critical editions of inscriptions, books, journal articles indexed by Sinta and Scopus, theses, and research reports. These materials were accessed through online academic databases such as JSTOR, Scopus, Google Scholar, and Digital Collections Leiden University. The instrument development for this research was conducted in stages. The primary instrument was the researcher herself, equipped with a theoretical understanding of historical

methods, epigraphy, and the fundamentals of archaeology in the classical period of Central Java. The supporting instrument was an observation guideline developed after the researcher conducted a literature review of relevant sources (Tennent & Gillett, 2024). This observation guideline included a list of architectural features to be observed and categories of findings to be recorded.

Data analysis techniques and validation of research results were carried out through several strategies. First, source triangulation involves comparing information obtained from different types of sources. These sources include inscriptions, architecture, topographic maps, and relevant secondary sources. This comparison is used to assess the consistency of the conclusions drawn (Miles et al., 2014). If inconsistencies were found, the researcher conducted a more in-depth analysis to explain the source of the contradiction. This served as evidence of diachronic changes in function. Second, peer debriefing involves periodically discussing the researcher's preliminary findings and interpretations with fellow academics. This process aims to obtain constructive criticism and suggestions (Ahmed, 2024). Through these strategies, the research ensures the validity and reliability of its findings.

3 | Result

3.1 | Shape and Layout of the Ratu Boko Complex

The Ratu Boko complex reflects a highly structured spatial planning rich in symbolic meaning. This planning is physically manifested in the division of three main terraces that stretch along the west-east axis. These terraces consist of the lower terrace (*bhurloka*), the middle terrace (*bhuvarloka*), and the upper terrace (*svarloka*). This division is not merely an adjustment to the topography of Boko Hill, which has an altitude of about 196 meters above sea level. It also reflects a deep cosmological concept of the universe divided into three levels (Longhurst, 2012).

In Ancient Javanese Hindu-Buddhist cosmology, *bhurloka* is interpreted as the world of humans and mortals. *Bhuvarloka* is the transitional world between humans and gods. *Svarloka* is the world of the most sacred and highest gods (Kusen, 1995). The lower terrace, the lowest and outermost zone of the complex, served as the main entrance. It also served as a residence for soldiers, servants, and individuals who did not have access to the more sacred areas. Based on the distribution patterns of pottery and everyday artifacts found on the lower terrace, this area was a zone of daily, non-ceremonial activities. This makes it appropriately located at the lowest level both topographically and hierarchically (Soekmono, 1974).

The middle terrace functioned as a transition zone connecting the outside world with the center of power and ritual on the upper terrace. It was in this area that important structures were found, such as the main gate and an open courtyard. This courtyard served as a gathering place for royal officials before meeting the king (Hartono & Haryono, 2004). The upper terrace is the most sacred zone. This is where the *keputren* complex (the residence of the king's daughters and queens) and a structured stone pool used for purification rituals were located. Only individuals with political and religious importance were allowed to enter this upper terrace. These included the royal family, brahmins, and high officials (Rangkuti, 2003).



Figure 1. Sketch Map of the Ratu Boko Complex Drawn.
Source: Bagus Irawan (2026).

The orientation of the main buildings at Ratu Boko reflects a deliberate plan. This plan connects the complex to Mount Merbabu and Mount Merapi to the north and the Indian Ocean to the south (Pratiwi, 2021). From a Hindu-Buddhist cosmological perspective, Mount Merbabu and Merapi are considered the abode of the gods (*svarloka*). The Indian Ocean is seen as the abode of underwater creatures and a symbol of feminine power (Degroot, 2006). Kusen (1995) notes that the north-south orientation at Ratu Boko is closely related to the concept of Mount Meru (the axis of the world). In ancient Javanese Hindu-Buddhist cosmology, Mount Meru is considered a link between three realms: the realm of the gods at the top of the mountain, the transitional realm on the slopes, and the realm of humans at the foot of the mountain.

Degroot (2006) also added that the north-south orientation of classical period sites in Central Java, including Ratu Boko, is related to local belief. Mount Merapi in the north and the Indian Ocean in the south are two sacred poles that flank the king's power. Thus, the king who resides in Ratu Boko is symbolically located at the center between these two cosmic forces. The legitimacy of his power is not only derived from political and military abilities. It also comes from the cosmological balance he represents.



Figure 2. View of the Ratu Boko Complex to the North Showing Mount Merapi as a Cosmological Background.

Among the various key structures in the Ratu Boko complex, the *paduraksa* gate is one of the most iconic and easily recognizable elements. The *paduraksa* gate is a type of monumental gate that has a more complex structure with a tiered roof and a covered space at the top. This contrasts with the *bentar* gate which opens without a covering roof (Suwarna, 1987). At Ratu Boko, the *paduraksa* gate is located on the central terrace. It serves as a divider between the more open public area and the more exclusive sacred or palace (Degroot, 1972).

Soekmono (1974) argues that the layered gate system in the Ratu Boko complex is a physical implementation of the *catuspatha* concept in ancient Indian urban planning. *Catuspatha* is a circular or rectangular intersection of four streets with an altar in the center. This concept was later adapted to the Javanese context as the *alun-alun* (square) during the Majapahit and Mataram Sultanate eras. In this adaptation, gates served not only as physical dividers between different zones. They also served as visual reminders of the prevailing social and cosmological (Kusen, 1995; Sunaryo et al., 2013).

The presence of the monumental *paduraksa* gate at Ratu Boko also indicates the influence of East Indian architecture. This influence particularly comes from the Pāla Dynasty in Bengal, famous for its fortified monasteries such as the Somapura Mahavihara in Paharpur (present-day Bangladesh) (Coppleston, 2024). During the same period (8th to 10th centuries), the Pāla Dynasty developed an architectural model that combined religious functions with military defense. This model was later adapted by the architects of the Ratu Boko complex to the local Javanese context (Sinha & Tucunan, 2021a).



Figure 3. *Paduraksa* Gate in the Ratu Boko Complex Showing the Multi-Tiered Roof Structure and Entrance to the Central Terrace Area.

The next key structure that is also very important is the *Paseban*. The word *paseban* comes from Javanese and means a place to face (Pramastuti, 2008). Functionally, the *paseban* serves as a location for servants, officials, or royal guests to meet the king. They came to submit reports, requests, or simply pay their respects (Septarina, 2017). In Ratu Boko, the *paseban* is located not far from the *pendapa*. It is closer to the *keputren* area or the king's residence. It has a more hierarchical spatial layout than the *pendapa* (Paraton et al., 1997). Some experts also argue that the *paseban* not only functions as a place to meet the king on state affairs. It can also function as a place of worship or certain religious rituals. This is due to its location in the transition zone between the *pendapa* (which is more public) and the *keputren* (which is more private) (Tjandrasasmita et al., 2008). Thus, the *paseban* in Ratu Boko has a dual function. It serves as a space for state audiences and as a ritual preparation room before entering the more sacred area.



Figure 4. *Paseban*.

In the context of Javanese architecture, a *pendapa* is an open building without dividing walls. It is used as a place for official meetings or deliberations. In Ratu Boko, the *pendapa* is rectangular in shape with a relatively large size. It is surrounded by a row of *umpak* (pillar bases) made of andesite stone (Arifin, 2012). This structure has no remaining roof because the roof was previously made of organic materials, such as wood and rumbia leaves. These materials have decayed over the centuries (Hartono et al., 2011). The absence of dividing walls in the *pendapa* indicates that this building was designed to accommodate many people in one open space. This allowed for extensive communication and discussion between the king, ministers, regional officials, brahmanas, and foreign envoys (Kusen, 1994). The main function of the *pendapa* is as a place of deliberation to discuss various state affairs. These included agricultural policies, trade, defense, and diplomatic relations with other kingdoms (Adjij & Achmad, 2014). Its open nature without physical barriers reflects the values of deliberation and openness in political decision-making during the Medang Kingdom. This was at least true at the elite level of the kingdom.



Figure 5. Front View of the *Pendapa*.



Figure 6. Inside View of the *Pendapa*.

On the east side, there is a rectangular building with a hollow in the center. This is often referred to by local people and researchers as a burning temple or burning area (*candi pembakaran*). Archaeologically, this structure is identified as a *homa-kunda*. This is an altar for fire offerings in the Hindu Shiva tradition (Rangkuti, 2003). The *homa-kunda* ceremony is a ritual in which fire is worshipped as a witness and medium for making offerings to the gods. It is usually performed to pray for soil fertility, timely rain, abundant harvests, the birth of children, or victory in war (Soekmono, 1974).

In the Shiva tradition, *homa-kunda* are often placed in open areas. They are oriented east or north, in accordance with the rules set out in the Shiva scriptures (Hindu architectural and artistic manuals) (Sadono & Pandanwangi, 2025). At Ratu Boko, the *homa-kunda* is located on the central terrace, which is a transitional zone. It is close to the *paseban* and the *paduraksa* gate. This indicates that this fire ritual had a public dimension. It could be witnessed by officials and royal guests, rather than simply being a private ritual performed in an enclosed space (Degroot, 2006).

In an earlier phase when Ratu Boko still functioned as a Buddhist monastery, this area likely functioned as a *bodhihara*. This was a place dedicated to the Bodhi tree (the tree under which Buddha attained enlightenment) or as a place of meditation (Kusen, 1994).

The existence of these two functional layers, Buddhist and Hindu, in the same structure indicates that Ratu Boko underwent a physical conversion of function. Buddhist elements were modified or replaced by Hindu elements in accordance with the religious affiliation of the new rulers of the Sanjaya Dynasty (Garcia, 2016).



Figure 7. Burning Temple.

In the *keputren* area and its surroundings, there is a fairly large rectangular stone pool. It is equipped with stairs on one side and a water channel made of neatly arranged andesite stone. Archaeologists agree that this pool did not function as a regular drinking water reservoir or daily bathing pool for the palace residents. This is due to its location in the most sacred area of the complex (the upper terrace) and its construction, which is too complex and monumental for mere practical purposes (Kusen, 1994).

Garcia (2016) states that this pool was used for purification ceremonies or holy baths by kings, princesses, and monks or brahmins before carrying out larger religious rituals. This practice was very common in Hindu and Buddhist traditions. In Hindu-Buddhist cosmology, water is considered *amṛta* or the water of eternal life. It has the power to cleanse sins, purify the body and soul, and prepare one to communicate with the gods (Sudaryati, 2018). Furthermore, the pool at Ratu Boko also served as a venue for *abhiseka* (a royal coronation ceremony) and *sraddha* (a death ceremony and tribute to the king's ancestors). The sacred waters of this pool were believed to bring blessings from the gods and ancestral spirits (Surpi et al., 2023).

By integrating the pool (symbolizing water, femininity, and prosperity) located in the *keputren* area with the burning temple or *homa-kunda* (symbolizing fire, masculinity, and strength) located on the central terrace, the Ratu Boko complex intentionally created a fertility axis. This axis brought together two opposing cosmic elements (water and fire, female and male) to generate life energy and prosperity for the kingdom (Septarina, 2017). This cosmological approach can also be found at similar sites in India, Sri Lanka, and other Southeast Asian regions. This indicates the transmission of ritual and architectural knowledge across cultures during the classical period (Murphy & Stark, 2016).



Figure 8. Miniature of the Temple in the Keputren Area



Figure 9. Pool in the Keputren Area

In the northeastern part of the Ratu Boko complex, there are two unique structures carved directly into the limestone hillside: Lanang Cave and Wadon Cave. Lanang Cave, which in English means “men’s cave,” has a rectangular passageway measuring approximately 1.3 meters high, 3.7 meters wide, and 2.9 meters deep (Pramastuti, 2008). This cave is located northeast of the *pendapa* and *paseban* area and faces south. The most striking feature of Lanang Cave is the niches (small recesses or depressions) carved into the left, right, and rear walls. Each niche has carvings resembling a stone frame (Septarina, 2017).

In front of Lanang Cave is a small pool and three statues. Based on epigraphic and iconographic research, the third statue was conclusively identified as a representation of *Aksobhya*. *Aksobhya* is one of the five Dhyani Buddhas (meditative Buddhas) in the Mahayana Buddhist pantheon (Hartono & Haryono, 2004). At the bottom of the pool in front of Lanang Cave, a standing *linga* (symbol of the god Śiwa) was also found. This indicates the addition of a layer of Śiwa worship during the Sanjaya Dynasty. This occurred after the site’s function changed from a Buddhist monastery to a Hindu palace (Paraton et al., 1997).

Wadon Cave, which in English means “women’s cave,” is smaller than Lanang Cave. It is smaller both in terms of height, width, and depth of the passage. Like Lanang Cave, Wadon Cave also has a rectangular passage with small niches in each corner (Septarina, 2017). The naming of “wadon” (female) by the local community is based on the discovery of a relief that has been modified to resemble the shape of female genitals (the *yoni* symbol). This relief is located above the cave entrance (Hartono et al., 2011).

Archaeologists agree that Lanang Cave and Wadon Cave functioned as places of asceticism or contemplation. They served as hermitages or meditation caves for kings and monks. This function is also supported by archaeological discoveries in the surrounding area, such as the small pool located in front of Lanang Cave. In Hindu-Buddhist traditions, such pools are always located near places of worship or meditation. The water serves as a means of purification before entering the sacred area (Paraton et al., 1997).

Thus, Lanang Cave and Wadon Cave complement the function of the Ratu Boko complex as a location that fulfills not only political and administrative needs (the palace) but also spiritual and ritual needs (a place of meditation and asceticism). This reflects the ancient Javanese concept of the king as both leader and religious leader. This concept is known as *devaraja* (the embodiment of the gods on earth).



Figure 10. Wadon Cave.



Figure 11. Lanang Cave

3.2 | Epigraphic Findings, Artifacts, and Religious Iconography

Epigraphic research at the Ratu Boko complex has yielded two major inscriptions that are key to understanding the function and history of the site. These are the Abhayagirivihāra Inscription and the Siwagrha Inscription. These two inscriptions not only provide important chronological information but also reveal the complex political and religious dynamics of the Medang Kingdom between the 8th and 10th centuries AD.

The Abhayagirivihāra Inscription is dated to 714 Śaka or around 792 AD. It explicitly mentions the establishment of a Buddhist sacred building called Abhayagirivihāra. This name literally means “*vihāra* on a hill free from danger” (Casparis, 1956). *Vihāra* itself is a technical term in the Buddhist tradition. It refers to the residence of a community of monks (*saṅgha*) which also functions as a center for meditation, study of sacred texts (*tripiṭaka*), and the performance of daily religious rituals.

The inscription states that Rakai Panangkaran, a king of the Śailendra Dynasty, founded this place as a location for pursuing a spiritual life (Hartono et al., 2011). A very important context of the Abhayagirivihāra Inscription is that Rakai Panangkaran is said to have given up his worldly position or retired from power (*sannyāsin*) when he founded this monastery. In Indian and Southeast Asian traditions, the practice of a king retiring from worldly life to pursue a spiritual life (*vanaprastha*) is not uncommon. Such a retired king may establish a religious complex as a place of personal (Kusen, 1995).

The Abhayagirivihāra inscription also indicates a close connection with the Theravāda Buddhist tradition of Sri Lanka. According to Casparis (1956), the name Abhayagirivihāra was not accidental. It

was a deliberate reference to the famous monastery in Anurādhapura, Sri Lanka, known as Abhayagiri Vihāra. This Sri Lanka monastery was one of the most significant centers of Theravāda Buddhist learning during the classical period. It was renowned for its distinctive interpretation of Buddhist texts and profound meditation practices.

By choosing the same name, Rakai Panangkaran demonstrated an attempt to bring the Theravāda Buddhist tradition of Sri Lanka into Javanese culture. He also sought to associate the religious complex he founded with the prestige and spiritual authority of the Sri Lanka monastery (Paraton et al., 1997). This suggests that by the late 8th century, the Medang Kingdom under the Śailendra Dynasty was not only accepting Buddhist influences from India. It was also actively engaged with and adopted elements from Sri Lanka Buddhist traditions. Degroot (2006) even argues that the complex was deliberately designed to resemble the Abhayagirivihāra in Sri Lanka, both in terms of its purpose and name. This suggests a trans-regional transmission of ritual and architectural knowledge during this period.

The Ratu Boko complex has yielded a number of artifacts crucial for understanding its religious affiliations across various periods. From the Buddhist phase, which coincides with the founding of the monastery by Rakai Panangkaran (c. 792 CE), fragments of Dhyani Buddha statues and stupika (miniature stupas) have been found throughout the site (Kusen, 1995). The presence of these Dhyani Buddha fragments suggests that the Buddhist school practiced in the early phase was likely Mahayana, although the name of the monastery itself refers to the Theravāda tradition of Sri Lanka (Casparis, 1956). The stupika, generally placed in wall niches or on altars as symbols of the Buddha and his teachings, further strengthen this interpretation. According to Satyawati Suleiman (1979), this Buddha figure is particularly significant, as Rakai Panangkaran is known in Javanese historiography as a major patron of Buddhism, who also founded the Kalasan Temple for a community of monks and nuns. These findings are mostly focused in the middle terrace area and around Lanang Cave and Wadon Cave, which indicates that these zones were originally intended for religious activities, especially meditation and scripture study (Kusen, 1995).



Figure 12. Fragments of Buddha Statues Around the Paseban.
Source: Digital Collections Leiden University (1938).

From the Hindu period, which corresponds to the transitional phase towards the palace under Rakai Pikatan and the Sanjaya Dynasty (after 856 AD), Hindu statues such as Durga, Garuda, as well as *linga-yoni* were found in various locations within the complex (Paraton et al., 1997). The statue of Durga, which is a manifestation of the Goddess Parvati as the wife of Lord Shiva in her fierce form as the slayer of the giant Mahisha, was found in the upper terrace area near the *keputren* (Hartono et al., 2011). The statue of Garuda, which functions as the vehicle of Lord Vishnu in Hindu mythology, was found in the middle terrace area near the

pendapa and *paseban*. The presence of the Garuda statue in Ratu Boko indicates the influence of the Vaishnava sect (worship of Lord Vishnu). This is in addition to the dominance of the Shiva sect reflected in the Siwagraha Inscription (Kusen, 1995).



Figure 13. Garuda Statue Found in *Pendapa*.
Source: Digital Collections Leiden University (1938).



Figure 14. Durga Statue Found in *Paseban*.
Source: Digital Collections Leiden University (1938).

The most significant discovery is the discovery of a *linga-yoni* behind the burning temple. The *linga* is a cylindrical or oblong symbol of Lord Shiva. It represents the masculine, creative, and powerful aspects of the deity. The *yoni* is a square base with a recess in the center. It symbolizes the feminine, fertility, and universal aspects. When the *linga* is placed on the *yoni*, these two symbols represent the union of the masculine and feminine principles. This represents the union between Shiva, which is the core of Shiva Hindu theology (Surpi, 2020). The discovery of the *linga-yoni* at Ratu Boko, especially in the area behind the burning temple (*homa-kunda*), indicates that during the Hindu phase, this complex functioned not only as a palace and fortress. It also functioned as an active place of worship for Shiva. The existence of two distinct layers of iconography, Buddhist and Hindu, in one site indicates that the Ratu Boko complex experienced an accumulation of religious functions over time. This accumulation was based on the policies of the king who ruled it (Degroot, 2006).



Figure 15. *Linga-Yoni* Found Behind the Burning Temple Area.

The spatial distribution of artifacts within the Ratu Boko complex shows a very interesting pattern. This pattern is consistent with the hypothesis of a change in function from a Buddhist monastery to a Hindu palace. Buddhist artifacts, such as fragments of Dhyani Buddha statues and stupika, are found around the Lanang and Wadon Caves. These caves functioned as meditation sites (Kusen, 1995). The concentration of Buddhist artifacts in these meditation areas is very logical. In the Buddhist tradition, meditation is a core practice. The presence of Dhyani Buddha statues (meditative Buddhas) and stupika (symbols of enlightenment) would greatly assist monks or ascetics in focusing their minds during spiritual practice.

Meanwhile, Hindu artifacts, such as Durga statues, Garuda statues, and *linga-yoni*, are mostly found in the upper terrace area (*keputren* and pool) and around the burning temple (*homa-kunda*) on the middle terrace. This distribution suggests that during the Hindu phase, the more sacred upper terrace area was dedicated to the worship of Shiva deities. The middle terrace area (especially the *homa-kunda*) was used for public fire offerings (Paraton et al., 1997).

In some locations, such as in front of Lanang Cave, overlapping Buddhist artifacts (Dhyani Buddha statues) and Hindu artifacts (*linga* placed at the bottom of the same pool) were found (Hartono et al., 2011). This suggests that although the complex as a whole was transformed into a Hindu palace under the Sanjaya Dynasty, Buddhist elements from the previous phase were not completely destroyed. They were allowed to survive or even integrated into new religious practices. This tolerant or syncretistic attitude reflects a broader political reality. This was the marriage between Rakai Pikatan (Hindu) and Pramodawardhani (Buddhist, grandson of Rakai Panangkaran). This marriage sought to unite two distinct religious traditions under the single umbrella of Sanjaya Dynasty rule (Erlangga & Nelsusmena, 2022).

4| Discussion

4.1 | The Development of the Functions of the Ratu Boko Complex Reviewed from a Historical Chronology

Periodically, the history of the Ratu Boko Complex can be categorized into four main phases. These phases reflect changes in its function, ownership, and political significance in the context of the Medang Kingdom (Ancient Mataram) between the 8th and 10th centuries AD (Paraton et al., 1997). These four phases include the pre-Sailendra phase (before the mid-8th century), the Buddhist monastery phase under Rakai Panangkaran (around 792 AD to 856 AD), the Hindu palace phase under Rakai Pikatan and the Sanjaya Dynasty (after 856 AD to the end of the 9th century), and the post-transfer phase of the center of power to East Java (after 929 AD and above).

The first phase is the pre-Rakai Panangaran or pre-Sailendra period. This occurred before the mid-8th century. For this phase, the existing archaeological evidence is still limited and largely speculative. Inscriptions or building structures that can be confirmed to date from this period have not been found. Degroot (2006) notes that before the systematic construction by the Sailendra Dynasty, Bukit Boko may have functioned as a traditional local place of worship. This is based on the pattern of *punden berundak* (terraced pyramid) found in many pre-Hindu sites in Central Java. *Punden berundak* is a terraced structure typically used in indigenous Nusantara beliefs. It was used to worship ancestral spirits or local gods believed to reside in high places (Miksic, 1993).

The choice of the hill as a place of worship in the local pre-Hindu-Buddhist cosmology is not accidental. In the native beliefs of Javanese agrarian society, hills or mountains are considered sacred places. They are considered closer to the sky (the abode of the gods and ancestral spirits) (Nitihaminoto et al., 1983). Miksic (1993) also stated that settlement patterns in the Prambanan Plateau during the pre-Hindu period showed a tendency to occupy small hills. Thus, Bukit Boko had become a cosmologically important location before the arrival of Hindu-Buddhist influences in Java. When the Sailendra Dynasty later chose Bukit Boko as the location for building a monastery in the late 8th century, they did not start from a culturally empty space. They utilized and 'legitimized' a place that was already considered sacred by the local community.

The second phase was the Buddhist monastery period under Rakai Panangaran. This lasted from around 792 AD to 856 AD. This phase began with the publication of the Abhayagirivihāra Inscription (792 AD). This inscription recorded the establishment of a Buddhist monastery on Boko Hill by Rakai Panangaran. He was a king from the Sailendra Dynasty who had laid down worldly power or retired from his position as king (Casparis, 1956). The main function of the complex in this phase was as a spiritual retreat for abdicated kings (*sannyāsin*) (Kusen, 1995). The Sailendra Dynasty that ruled during this phase is known in historiography as the main protector of Buddhism. They are also recorded as building Kalasan Temple and Borobudur Temple.

The key evidence that supports the identification of this phase as a Buddhist *vihāra* is the Abhayagirivihāra inscription itself. Archaeological findings also support this identification. These include fragments of Dhyanī Buddha statues and stupika (miniature stupa) in various corners of the site. These are especially found in the central terrace area and around Lanang Cave which functions as a place of meditation (Jordan & Colless, 2004). However, it is important to note that despite its religious function as a monastery, Ratu Boko's strategic location on a hill that dominates the Prambanan Plain shows that this complex still had significant political value. It served as a symbol of the legitimacy of the Sailendra Dynasty's power over the southern region of Central Java.

The third phase was the golden age of the Hindu palace. This lasted from approximately 856 AD to the end of the 9th century. This phase began with Rakai Pikatan's victory over Balaputradewa in a battle that took place around Ratu Boko Hill in 856 AD (Casparis, 1956). Following this event, the Siwagrha Inscription (856 AD) records a major transformation of the complex. The complex was transformed from a Buddhist monastery to a stone fortress, monumental gates, ponds, pavilions, and a Śiwa worship area. All of these are characteristic of a palace (Soetarno, 2002). The main function of the complex during this phase underwent a radical change. It became the center of political, military, and administrative power for the Sanjaya Dynasty. Rakai Pikatan and his successor, Rakai Kayuwangi, used Ratu Boko as a military headquarters to oversee security in the southern region of

Prambanan. They also used it as an administrative center for managing the territory. It served as a venue for state ceremonies such as coronations (*abhiseka*) and the reception of foreign envoys (Boechari, 1976).

The religious affiliation of this phase was Shiva Hindu. This is reflected in the name of the inscription (Siwagrha, meaning "house of Shiva"). It is also reflected in the discovery of Hindu statues such as Durga, Garuda, and *linga-yoni*. Key evidence supporting the identification of this phase as a Hindu palace is the Siwagrha Inscription. This inscription mentions the construction of a stone fortress, gate, and moat. Architectural evidence also supports this identification. This includes andesite fortress walls 1.5 to 2 meters thick, *pendapa* and *paseban* for public gatherings, and a burning temple (*homa-kunda*) for ritual fire offerings (Paraton et al., 1997). It was in this phase that Ratu Boko reached the peak of its glory as the center of power of the Sanjaya Dynasty. It functioned as the "eye" that monitored the Prambanan Plain. It also functioned as the "hand" that controlled ritual activities at Prambanan Temple, which is located only about 3 kilometers north of the Ratu Boko complex (Degroot, 1972).

The fourth phase was the period following the transfer of the Medang Kingdom's center of power to East Java. This began around 929 AD. In 929 AD, Mpu Sindok, the next generation of kings of Ancient Mataram, officially moved the center of the kingdom to East Java. The new center was specifically in the Watugaluh area (now around Jombang) (Utama & Subekti, 2023). This move was triggered by various factors. These included the massive eruption of Mount Merapi that buried many sites in Central Java. Pressure from the Srivijaya Kingdom from the west and sea was also a factor. There was also a shift in maritime economic orientation that made East Java more strategic due to its proximity to the spice trade route from the Maluku Islands (Christie, 2001).

As a result of this move, the centers of power in Central Java, including Ratu Boko, Prambanan Temple, and other temples in the vicinity, were gradually abandoned. After the 10th century, no inscriptions record official royal activities at the Ratu Boko complex (Abbas, 2014). The complex was then used only sporadically by local people. It served as a pilgrimage site or a stopover for travelers and ascetics. Eventually, it was buried by volcanic material from subsequent eruptions of Mount Merapi and forgotten for centuries. The site was not rediscovered until 1790 by Van Boekholtz, a researcher from the Dutch East Indies. Systematic restoration began by Van Romondt in 1938 (Kusen, 1995).

4.2 | The Dialectic of Power Behind the Conversion of Ratu Boko's Function

The conversion of the Ratu Boko Complex from a Buddhist monastery to a fortified Hindu palace cannot be understood simply as a neutral architectural change. Behind this physical transformation lies a complex dialectic of power. Rakai Pikatan, as the victor in the battle against Balaputradewa, not only seized the territory of the Sailendra Dynasty. He also consciously utilized the monumental sites left by the opposing dynasty as tools of political legitimacy and symbols of victory (Kusen, 1995). The legitimacy strategy implemented by Rakai Pikatan was multidimensional. It encompassed military aspects (the physical seizure of the site). It also included symbolic aspects (revitalization and conversion of building functions). Finally, it included genealogical aspects (political marriages). This integrated approach demonstrates that Rakai Pikatan and the Sanjaya Dynasty deeply understood the importance of physical space. This was especially true for spaces rich in sacred and political meaning in the project of consolidating power.

By seizing the Ratu Boko complex, which was previously a monastery owned by Rakai Panangkaran, Rakai Pikatan symbolically asserted that the new dynasty had taken over the position of the old dynasty. He also seized their legitimacy (Maziyah, 2012). More than just a physical seizure, Rakai Pikatan actually revitalized and rebuilt the complex with a completely different function. The complex was transformed from a quiet spiritual retreat to a sturdy military fortress and a magnificent palace (Simanjuntak et al., 2007). One of the most ingenious instruments in Rakai Pikatan's legitimacy strategy was his political marriage to Pramodhawardhani. She was the daughter of Samaratungga (the last Śailendra king to rule in Java). She was also the granddaughter of Rakai Panangkaran (founder of the Ratu Boko monastery). This marriage strategically integrated the blood claims of the Śailendra Dynasty (through Pramodhawardhani) with the military might of the Sanjaya Dynasty (through Rakai Pikatan) (Adji & Achmad, 2014).

In Boechari's (1976) view, this type of marriage was a very common form of legitimacy in pre-modern Southeast Asia. The new ruler did not simply erase traces of the old dynasty brutally. Instead, they absorbed them through marriage ties. This created a symbolic continuity more acceptable to the old dynasty's loyal supporters. In the context of the Ratu Boko complex, the marriage between Rakai Pikatan and Pramodhawardhani provided a strong foundation for a "peaceful" takeover of the monastery complex. At the very least, it provided recognition from the remaining Śailendras.

Through this marriage, Ratu Boko, previously owned by Pramodhawardhani's ancestor (Rakai Panangkaran), could be considered an inheritance or dowry from his wife. Rakai Pikatan's takeover was seen not only as a crude military conquest. It was also seen as a legitimate management of family assets (Paraton et al., 1997). Murphy & Stark (2016) note that throughout Southeast Asia, marriage narratives are often used to disguise or soften power struggles. Research on the Ratu Boko complex provides a classic example of this strategy. Pramodhawardhani, as a Buddhist Śailendra daughter, married Rakai Pikatan, a Śiva Hindu. This marriage not only united two warring dynasties. It also created space for religious syncretism and tolerance. The fact that in Ratu Boko the Buddhist artifacts (Dhyani Buddha statues, stupika) were not completely destroyed after the conversion to a Hindu palace is significant. They were left to remain in several corners of the site (for example in Lanang Cave and Wadon Cave). This can be interpreted as a form of respect from Rakai Pikatan to his wife's ancestors. It could also be seen as a pragmatic political stance to avoid prolonged religious conflict (Erlangga & Nelsusmena, 2022).

More than just a tool of legitimacy, Ratu Boko's conversion from a Buddhist monastery to a fortified Hindu palace also served as a powerful narrative of victory. The Siwagrha inscription (856 CE) not only records the physical construction of the fort, gate, and moat. It also implicitly tells the story of how Rakai Pikatan, with the assistance of Rakai Walaing Pu Kumbhayoni as technical executive, transformed the enemy's buildings into his own (Boechari, 1976). The conversion also encompassed a fundamental religious aspect. This was the replacement of the focus of worship from Buddha (Dhyani Buddha statues, stupika) to Shiva (*linga-yoni*, *homa-kunda*, Durga statue). The burning temple or *homa-kunda* built on the central terrace, not far from the *pendapa* and *paseban*, was a public statement. It declared that Shiva was now the primary patron of the complex (Garcia, 2016). The fire lit in the *homa-kunda* for the offering ceremony could be seen and perhaps smelled by the officials and royal guests gathered in the *paseban*. Thus, the new ruler actively "enlivened"

and "revitalized" the previously desolate site as a place of copying (Degroot, 2006).

Ratu Boko in the Hindu palace phase functioned not only as a center of government and maintenance. It also served as a "theater of power" where every architectural and ritual element was designed to reinforce the narrative that Rakai Pikatan was the legitimate, powerful ruler, and influenced by the god Śiwa. The Śailendra Dynasty and the Buddhist tradition they represented were part of the past that had been conquered and replaced (Soekmono, 1974). Overall, the dialectic of power inherent in Ratu Boko's conversion demonstrates that changes in the architecture and function of a monumental site are never politically neutral. Rakai Pikatan's legitimation strategy, which combined military force (capturing and fortifying sites belonging to rival dynasties), political marriage (using Pramodhawardhani as a means of "soft takeover"), and a narrative of victory (converting a Buddhist monastery into a magnificent Hindu palace), is a classic example of how power in Ancient Java was established not only through battle. It was also established through the control of space, symbols, and historical narratives.

Ratu Boko, with its sturdy fortress walls, monumental gates, *pendapa* and *paseban* for public gatherings, and *homa-kunda* for ritual fire offerings, is clear evidence of the success of this strategy. Rakai Pikatan not only defeated Balaputradewa on the battlefield. He also "defeated" the memory and legacy of Śailendra by rewriting the function and meaning of their physical spaces. In this context, the Ratu Boko complex stands as a very eloquent silent witness. It demonstrates how the conversion of spatial functions can function as the most effective instrument of power in the pre-modern Nusantara.

5 | Conclusion

This study concludes that the Ratu Boko complex underwent a diachronic functional change from a Buddhist monastery to a fortified Hindu palace between the 8th and 9th centuries CE. The Abhayagirivihāra inscription (792 CE) and the discovery of a Dhyani Buddha statue indicate its initial phase as a spiritual retreat for Rakai Panangkaran (Śailendra) who adhered to Theravāda Buddhism. Meanwhile, the Siwagrha inscription (856 CE) and the discovery of a fortress wall, *paduraksa* gate, *pendapa*, *paseban*, *homa-kunda*, Durga, Garuda, and *linga-yoni* statues prove its transformation into a center of political-military power for Rakai Pikatan (Sanjaya) who adhered to Hindu Śiva. This transformation was achieved through several legitimacy strategies. These included the seizure of rival sites, symbolic revitalization, and political marriage with Pramodhawardhani. Each of these strategies played a crucial role in consolidating Sanjaya Dynasty power over the former Śailendra territory.

The theoretical implications of this study enrich the understanding of power relations, religion, and landscape in the pre-modern Nusantara. This research demonstrates that the conversion of monumental space functions as an active instrument of political legitimacy. It is not simply a neutral architectural evolution. Furthermore, the accumulation of Buddhist and Hindu layers within a single site reflects a syncretic strategy of tolerance following a dynastic conflict. The practical implications of this research emphasize the importance of managing cultural heritage sites like Ratu Boko. It is crucial to present a diachronic narrative (changing functions over time) in educational materials and tourist interpretation. The site should not be presented simply as a static entity. The limitations of this research include the lack of in-depth excavations and Ground Penetrating Radar methods. These methods could reveal the soil stratigraphy of the untouched Ratu Boko complex. There is also

limited access to recent internal reports on the site. Recommendations for further research include cross-regional comparative studies with Pāla Dynasty fortress-monastery sites in Bengal. These sites served a similar function to the Ratu Boko complex during the Sanjaya Dynasty. The use of Ground Penetrating Radar methods and paleobotanical analysis is also recommended to reconstruct the ancient environment. Finally, limited excavations in the eastern area of the *keputren* could reveal evidence of daily domestic activities within the complex.

Conflicts of Interest

The authors declare no conflict of interest.

References

- Abbas, N. (2014). *Liangan: Mozaik Era Peradaban Mataram Kuno di Jawa Tengah dan Yogyakarta*. Kepel Press.
- Adji, K. B., & Achmad, S. W. (2014). *Sejarah Raja-Raja Jawa: Dari Mataram Kuno Hingga Mataram Islam*. Araska.
- Ahmed, S. K. (2024). The Pillars of Trustworthiness in Qualitative Research. *Journal of Medicine, Surgery, and Public Health*, 2(1), 51–55. <https://doi.org/10.1016/j.glmedi.2024.100051>
- Arifin, N. H. S. (2012). *Studi Tataan Lanskap Situs Ratu Boko, Daerah Istimewa Yogyakarta dan Upaya Pelestariannya*. Institut Pertanian Bogor.
- Boechari. (1976). *Some Considerations of the Problem of the Shift of Mataram's Center of Government from Central to East Java in the 10th Century A.D.* Smithsonian Libraries and Archives.
- Casparis, J. G. de. (1956). *Selected Inscriptions From the 7th to the 9th Century A.D. in Java*. Masa Baru.
- Christie, J. W. (2001). Revisiting Early Mataram. In *Fruits of Inspiration* (pp. 25–55). Brill Publishers.
- Copplestone, L. (2024). Temple-Monasteries, Buddhist Monks, and Architectural Exchange Between India, Java, and Tibet in the Late 8th Century. *Religions*, 15(11), 1338–1370. <https://doi.org/10.3390/rel15111338>
- Degroot, V. M. Y. (1972). *Candi, Space and Landscape: A Study on the Distribution, Orientation and Spatial Organization of Central Javanese Temple Remains*. Leiden University.
- Degroot, V. M. Y. (2006). The Archaeological Remains of Ratu Boko: From Sri Lanka Buddhism to Hinduism. *Indonesia and the Malay World*, 42(1), 55–74. <https://doi.org/10.1080/13639810600652196>
- Erlangga, G., & Nelsusmena. (2022). Perempuan di Era Jawa Kuno: Tinjauan Historis Peran Perempuan pada Masa Kerajaan di Tanah Jawa. *Chronologia*, 4(1), 24–33. <https://doi.org/10.22236/jhe.v4i1.9236>
- Garcia, V. L. P. (2016). South-East Asian Fortified Stone Walls: Angkor Thom (Cambodia), Ho Citadel (Vietnam) and Ratu Boko (Indonesia). *Humaniora*, 28(3), 238–253. <https://doi.org/10.22146/jh.22275>
- Gottschalk, L. (1969). *Understanding History: A Primer of Historical Method*. Alfred A. Knoff.
- Hardani, K. (2010). Rajya Rajya ing Jawa Madhya: Perbandingan antara Naskah Pustaka Rajya-Rajya I Bhumi Nusantara dengan Prasasti Wanua Tengah III. *Berkala Arkeologi*, 30(1), 39–60. <https://doi.org/10.30883/jba.v30i1.388>
- Hartono, T., Hadiyanta, E., Prasetyo, H., Nurwidayati, Y. I., Romawati, S. M., Sukasih, E., & Setiawan, S. (2011). *Laporan Pemugaran Candi Siwa dan Pelestarian Keraton Ratu Boko*. Balai Pelestarian Peninggalan Purbakala Yogyakarta.
- Hartono, T., & Haryono, T. (2004). *Pengelolaan Sumber Daya Arkeologi: Pelestarian dan Pengembangan Situs Ratu Boko*. Universitas Gadjah Mada.
- Jordan, R., & Colless, B. (2004). The Ratu Boko Mantra and the Sailendras. *Berkala Arkeologi*, 24(1), 56–64. <https://doi.org/10.30883/jba.v24i1.894>
- Kartodirdjo, S. (1992). *Pendekatan Ilmu Sosial dalam Metodologi Sejarah*. Gramedia Pustaka Utama.
- Kuntowijoyo. (2018). *Pengantar Ilmu Sejarah*. Tiara Wacana.
- Kusen. (1994). Raja-Raja Mataram Kuna dari Sanjaya Sampai Balitung: Sebuah Rekonstruksi Berdasarkan Prasasti Wanua Tengah III. *Berkala Arkeologi*, 14(2), 82–94. <https://doi.org/10.30883/jba.v14i2.721>
- Kusen. (1995). Kompleks Ratu Boko: Latar Belakang Pemilihan Tempat Pembangunannya. *Berkala Arkeologi*, 15(3), 128–132. <https://doi.org/10.30883/jba.v15i3.684>
- Longhurst, A. H. (2012). *The Story of the Stupa*. Asian Educational.
- Maziyah, S. (2012). Kondisi Jawa Tengah pada Abad VIII sampai Abad XV M. *Humanika*, 15(9), 15–29. <https://doi.org/10.14710/humanika.15.9>
- Miksic, J. (1993). From Megaliths to Tombstones: The Transition from Prehistory to the Early Islamic Period. *Indonesia and the Malay World*, 32(1), 191–210. <https://doi.org/10.1080/1363981042000320134>
- Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative Data Analysis: A Methods Sourcebooks*. SAGE Publications.
- Mochtar, A. S. (2009). *Vihāra pada Masa Jawa Kuna Abad VIII-XI M (Tinjauan Data Prasasti)*. Universitas Gadjah Mada.
- Mochtar, A. S. (2015). Vihara dan Pluralisme pada Masa Jawa Kuna Abad VII-XI Masehi (Tinjauan Data Prasasti). *Berkala Arkeologi*, 35(2), 113–126. <https://doi.org/10.30883/jba.v35i2.60>
- Moleong, L. J. (2017). *Metodologi Penelitian Kualitatif*. Remaja Rosda Karya.
- Murphy, S. A., & Stark, M. T. (2016). Transitions from Late Prehistory to Early Historic periods in Mainland Southeast Asia, c. Early to Mid-First Millennium CE. *Journal of Southeast Asian Studies*, 47(2), 333–340. <https://doi.org/10.1017/S0022463416000229>
- Nastiti, T. S., Nasoichah, C., Restyadi, A., Prihatmoko, H., Griffiths, A., Sastrawan, W. J., Levivier, A., & Dewanti, T. K. (2024). *Prasasti Zaman Hindu-Buddha di Daerah Istimewa Yogyakarta dan Provinsi Jawa Tengah*. Badan Riset Inovasi Nasional Indonesia.
- Nitihaminoto, G., Simandjuntak, T., Suryanto, D., Sukender, H., Bintarti, D. D., Soejono, R. P., & Soegondo, S. (1983). *Seksi Prasejarah I*. Departemen Pendidikan dan Kebudayaan.
- Nurmalitasari, D. A., & Andina, R. K. (2023). Eksplorasi Candi Ratu Boko Terkait Aktivitas Fundamental dalam Etnomatematika. *SEMANTIK: Prosiding Seminar Nasional Pendidikan Matematika*,

Paraton, H., Pangarsa, G. W., & Antariksa. (1997). Kompleks Ratu Boko, Bukan Candi? Penelusuran Fungsi Bangunan Situs Ratu Boko: Tinjauan Perencanaan Teknik Sipil. *Jurnal Teknik Universitas Brawijaya*, 9(2), 23–37.

Pramastuti, H. (2008). *Candi-Candi di Yogyakarta: Selayang Pandang*. Balai Pelestarian Peninggalan Purbakala Yogyakarta.

Pratiwi, R. (2021). *Manifestasi Kosmologi Jawa Dalam Tata Ruang dan Bentuk Keraton Yogyakarta*. Universitas Katolik Parahyangan.

Rangkuti, N. (2003). Bibliografi Beranotasi tentang Situs Keraton Ratu Boko. *Berkala Arkeologi*, 23(1), 121–131. <https://doi.org/10.30883/jba.v23i1.867>

Sadono, S., & Pandanwangi, B. (2025). The Performing Arts in Ancient Java: Historical and Archaeological Studies. *Berkala Arkeologi*, 45(1), 21–38. <https://doi.org/10.55981/jba.2025.9048>

Septarina, S. W. (2017). Perancangan Identitas Bangunan Candi Ratu Boko. *Prosiding Seminar Nasional Desain dan Media*, 1(1), 205–214. <https://proceeding.unindra.ac.id/index.php/semnasdesainmedia/article/view/6868>

Simanjuntak, T., Yuniawati, D. Y., Sukendar, H., Harkantiningasih, N., Hardiati, E. S., Wibisono, S., Ferdinandus, P. E. J., Diniasti, A., Nastiti, F. T. S., Utomo, B. B., Indrajaya, A., Mujib, Susetyo, S., Dewi, M., & Achmad, T. (2007). *Archaeologi Discoverie in Indonesia (1950-1980)*.

Sinha, I., & Tucunan, K. P. (2021). Evidences in Resemblance of Archaeological Structures of Kesariya and Borobudur Stupa. *IOP Conference Series: Earth and Environmental Science*, 778(1), 1–11. <https://doi.org/10.1088/1755-1315/778/1/012036>

Sjamsuddin, H. (2020). *Metodologi Sejarah*. Ombak.

Soekmono. (1974). *Candi: Fungsi dan Pengertiannya*. Universitas Indonesia Press.

Soetarno, R. (2002). *Aneka Candi Kuno di Indonesia*. Dahara Prize.

Sudaryati, N. L. G. (2018). Pemanfaatan dan Makna Air dalam Veda. *Vidya Wertta*, 1(2), 107–118. <https://doi.org/10.32795/vw.v1i2.194>

Suleiman, S. (1979). *Concise Ancient History of Indonesia*. Pusat Penelitian Purbakala dan Peninggalan Nasional.

Sunaryo, R. G., Soewarno, N., Ikaputra, & Setiawan, B. (2013). Colonial and Traditional Urban Space in Java: A Morphological Study of Ten Cities. *DIMENSI (Journal of Architecture and Built Environment)*, 40(2), 77–88. <https://doi.org/10.9744/dimensi.40.2.77-88>

Surpi, N. K. (2020). Śivagrha (Prambanan Temple) as an Archetype of Hindu Theology in Nusantara: An Endeavor to Discover Hindu Theological Knowledge through Ancient Temple Heritage. *Analisa: Journal of Social Science and Religion*, 5(1), 107–122. <https://doi.org/10.18784/analisa.v5i1.1024>

Surpi, N. K., Widiana, I. G. P. G., & Marselinawati, P. S. (2023). Śivagrha: Religious Harmonization and the Concept of Unity in Diversity. *Life and Death: Journal of Eschatology*, 1(1), 25–35.

Suwarna. (1987). Tinjauan Selintas Berbagai Jenis Gapura di Daerah Istimewa Yogyakarta. *Cakrawala Pendidikan*, 6(2), 63–83. <https://doi.org/10.21831/cp.v2i2.7451>

Tennent, K. D., & Gillett, A. G. (2024). Conceptualising Historical Project Studies – A Complementary Partnership. *International Journal of Project Management*, 42(4), 1–7. <https://doi.org/10.1016/j.ijproman.2024.102601>

Tjandrasasmita, U., Guillot, C., Ambary, H. M., Mahmud, M. I., Kosasih, E. A., Yuniawati, D. Y., P., S. M., & Suleiman, S. (2008). *Aspek-Aspek Arkeologi Indonesia*. Pusat Penelitian dan Pengembangan Arkeologi Nasional.

Utama, H. F., & Subekti, A. (2023). Analisis Fungsional terhadap Kebijakan Pemerintahan Mpu Sindok pada Abad ke-10 M. *Purbawidya: Jurnal Penelitian dan Pengembangan Arkeologi*, 12(1), 83–102. <https://doi.org/10.55981/purbawidya.2023.261>

Westberg, J. (2025). Historical Methods in Educational Research: Sources, Contextualisation, Periodisation and Analysis. *Paedagogica Historica*, 61(6), 994–1014. <https://doi.org/10.1080/00309230.2025.2473704>

Yuwono, A. T., Braake, G. ter, & Clumpers, P.-J. (2025). Ethics of Writing History in the Axiological Perspective of Pancasila. *Pancasila: Jurnal Keindonesiaan*, 5(2), 216–233. <https://doi.org/10.52738/pjk.v5i2.849>

Yuwono, A. T., Sebastian, A., Clumpers, P., & Basara, M. (2026). Ethics of Using Artificial Intelligence Reviewed from Pancasila and Bhinneka Tunggal Ika. *Bhinneka Tunggal Ika: Pancasila Jurnal Internasional Berbahasa Indonesia*, 3(1), 1–18. <https://doi.org/10.52738/bti.v3i1.55>