HISTORICAL TRANSFORMATIONS AND ARCHITECTURAL TYPOLOGY OF SUROSOWAN PALACE, SERANG, BANTEN

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ABSTRACT

Surosowan Palace survives primarily as a ruin, which makes its architectural type difficult to infer from the extant fabric or any single historical plan. This research discusses the impact of political, military, and infrastructure events on the palace complex in Old Banten. The research uses a qualitative, interpretative case study approach, integrating six historical representations from 1596 to 1900, archaeological and historical research, and site observations and images from 2024. Evidence was categorized in a typological matrix of function, spatial-formal organization, tectonics and materials, and defensive-historical qualities and contrasted across four historical stages. The analysis identifies Surosowan as a composite fortified palatial compound rather than a single building type. Recurrent characteristics include hierarchically differentiated royal, governmental, defensive, service, and water-related zones; a rectangular enclosure with controlled access; and brick-and-coral construction with functionally differentiated floor treatments. The most consequential transformations occurred during fortification under Maulana Yusuf, the 1680–1681 conflict and Cardeel-assisted reconstruction, and early nineteenth-century colonial dismantling. European-derived defensive geometry altered the enclosure and gateways, whereas the functional hierarchy of the sultanate compound persisted. The study contributes a phase-based typological interpretation that links fragmentary architectural evidence to historical change and offers an auditable basis for conserving ruined palace complexes.

Keywords: *Architectural Typology, Historical Morphology, Palace Complex, Surosowan Palace, Heritage Conservation*

INTRODUCTION

Surosowan Palace is an important architectural object of the old Banten Sultanate and of the medieval urban setting known today as Old Banten. What remains of its walls, foundations, pavement, water features and scattered indications of rooms is not a whole edifice, but the record of numerous phases of construction, maintenance, military adaptation and destruction. Reading the site as a magnificent ruin alone obscures the connections which formerly bound royal dwelling, governance, defense, ritual, service and water management. The difficulty for conservation is less than what each part was how the shards related to an evolving palace system.

Existing scholarly work provides the necessary historical and archaeological foundation. The construction phases were reconstructed (Permana, 2004a), while the foundations, walls, floor finishes, and functional zoning were examined (Permana, 2004b). Urban-historical research situates the palace within a maritime city whose political, religious, and commercial networks shaped its social setting (Supriatna, 2020; Hadi Wibowo, 2022). Comparative palace research indicates that royal architectural identity is shaped by political authority, cultural tradition, environmental conditions, and adaptation (Bujang, Misni and Raub, 2023). Recent typological studies demonstrate the analytical value of comparing explicit attributes rather than relying on stylistic labels (Setyadji *et al.*, 2024; Shofie and Prianto, 2025).

Current heritage methods also clarify how fragmentary evidence should be handled. Ontology-based conservation models make the relationship among fabric, documentation, and intervention explicit (Acierno *et al.*, 2017). Source-based virtual reconstruction and the Extended Matrix make interpretive dependence visible (Demetrescu, 2018), while semantic point-cloud and HBIM research demonstrate both the potential and the continuing limits of digital integration (Croce *et al.*, 2021; Penjor *et al.*, 2024). Systematic visual documentation of vernacular heritage likewise shows the value of recording spatial and material attributes before interpretation (Yudantini, 2022). At urban scale, systematic review of the Historic Urban Landscape approach stresses that material evidence must be interpreted together with setting, governance, and change over time (Ginzarly, Houbart and Teller, 2019). These studies support a transparent evidence hierarchy rather than a seamless visual reconstruction.

The Old Banten context makes that integration especially important. Research on Banten as an aquatic city identifies waterborne exchange and urban infrastructure as formative rather than peripheral (Supriatna, 2020). Studies of revitalization in Banten Lama and conservation at Situ Tasikardi report pressures involving physical decline, institutional coordination, access, and the accommodation of contemporary use (Hizmiakanza and Rahmawati, 2019; Andiyan and Budianto, 2021). More recent assessments call for site-wide revitalization and explicit protection of Surosowan as cultural property (Fadillah, 2025; Vitrana *et al.*, 2025). The present study responds by tying historical changes to architectural attributes that can be documented and managed.

Despite these contributions, three problems remain. First, previous accounts often place historical events and architectural descriptions in parallel without demonstrating how a particular event changed a particular attribute of the palace. Second, a list of rooms, materials, or stylistic features does not in itself constitute a

typology; the criteria by which features are classified, contrasted, and interpreted must be explicit. Third, the six historical representations vary in date, purpose, scale, and graphic convention and cannot be treated as a metrically consistent sequence. The research gap is therefore an evidence-controlled typological framework that connects historical phases to persistent and transformed architectural attributes while making uncertainty visible.

Three terms are deliberately separated. Typology refers to the recurrent organization of functions, spaces, construction, and boundaries that allows the palace to be understood as a class of architectural objects. Morphology refers to the configuration and transformation of those elements over time. Style refers more narrowly to a recognizable formal language or visual convention. The distinction matters because a ruined arch does not establish the type of an entire palace, and the presence of a European-derived defensive feature does not make every component European in style. A defensible interpretation must show how an observed feature participates in the compound's organization and identify the evidence that dates or explains it. This approach also prevents the term "hybrid" from substituting for analysis: the discussion specifies which defensive attributes changed, which sultanate functions continued, and where the evidence remains inconclusive.

Architectural type is used here as an analytical construct rather than a fixed model to be copied. (Moneo, 1978)described type as a way of grouping works through shared formal and structural properties while recognizing that types change through history. More recent attribute-based studies demonstrate how type can be traced through spatial organization, construction, and use even when individual forms vary (Bujang, Misni and Raub, 2023; Setyadji *et al.*, 2024; Shofie and Prianto, 2025). Applied to Surosowan, this position directs attention to relationships that endure, material and spatial attributes that change, and the historical circumstances in which each change occurred.

Accordingly, the study addresses three questions: (1) Which functional, spatial-formal, and tectonic features recur across the Surosowan Palace complex? (2) How did these features change across the identified historical phases? (3) Which patterns of persistence, transformation, and loss can be identified, and what do they imply for conservation? The objective is to provide a phase-based typological interpretation supported by traceable evidence. The intended contribution is both substantive and methodological: a definition of Surosowan as a composite fortified palace type and a reproducible matrix for relating fragmentary fabric, archival representations, and historical events.

THEORY / RESEARCH METHODS

Typological framework

The theoretical position is translated into four operational dimensions. The functional dimension identifies royal-residential, governmental, ceremonial, defensive, service, and water-management uses. The spatial-formal dimension examines enclosure geometry, access, hierarchy, axes, adjacency, and connections with the mosque,

square, market, and port. The tectonic dimension records foundations, walls, openings, floors, and water infrastructure together with their materials. The defensive-historical dimension identifies features associated with conflict, rebuilding, colonial intervention, and the interaction of local palatial order with European fortification. A typological claim is made only after an attribute has been assigned to at least one dimension and related to a dated phase. The dimensions function as intersecting analytical lenses: an entrance may regulate use, organize movement, embody a material threshold, and record a defensive intervention. Coding these relations creates a chain of evidence from source to attribute, to historical phase, and finally to typological interpretation.

Research design and evidence corpus

The study takes a qualitative interpretive case study technique. The evidence corpus is comprised of six historic representations, 1596, 1630, 1659, 1726, 1825/1826, 1900; published historical and archaeological studies, the main site-specific references are (Permana, 2004b, 2004a); and first-hand observation and photographic documentation of surviving fabric, undertaken in 2024. No interviews, surveys or human participants were involved. What is being studied is an architectural feature that is tied to a physical area and a historical period, not just a room label or an unfounded historical account.

Data collection began with an inventory recording each source, its date and provenance, the depicted or observed feature, and the likely interpretive limitation. Historical representations were used to identify recurring enclosure, access, urban interface, and water-related attributes. Because their scales and representational purposes are not equivalent, they were not overlaid as precise surveys, and no unverified metric change was calculated. Field observation documented visible wall construction, arched openings, foundations, floor surfaces, room boundaries, and pond or water features. Published archaeological interpretations were used to relate visible fragments to functions that cannot be established from appearance alone. The composition, analytical role, and limitations of the evidence corpus are summarized in Table 1.

Table 1. Evidence Corpus, Analytical Role, and Limitations

Source type	Corpus	Analytical role	Constraint
Historical representations	Six representations: 1596, 1630, 1659, 1726, 1825/1826, and 1900	Enclosure, access, urban interface, water features, and broad change over time	Heterogeneous scale, purpose, and graphic convention; no metric overlay
Historical and archaeological studies	(Atlas of Mutual Heritage, 1999; Permana, 2004b, 2004a; Supriatna, 2020; Hadi Wibowo,	Construction phases, documented events, material evidence, functional	Published interpretations vary in precision and require cross-checking

Source type	Corpus	Analytical role	Constraint
	2022; Vitrana *et al.*, 2025)	interpretation, and urban context	
Field observation	Visible walls, foundations, openings, paving, room traces, and water features recorded in 2024	Present material condition and spatial relationships	No new excavation, laboratory test, measured survey, or subsurface investigation
Visual documentation	Authors' 2024 photographs and original analytical graphics prepared for this article	Verification of extant fabric and explicit communication of analytical relationships	Photographic viewpoint limits measurement; analytical graphics are interpretive and not-to-scale

Analytical procedure

Analysis proceeded in four stages (Figure 1). First, the evidence was inventoried and its provenance recorded. Second, observations were coded against the four typological dimensions. Thirdly, coded features were examined across four phases: development (1552–1580); rebuilding and defensive change (1605–1681); consolidation in the eighteenth century; and colonial dismantling and archaeological survival (1808–1900). Fourth, each comparison was categorized as persistence, change or loss. Confidence was assessed qualitatively, with high confidence assigned when there was convergence of two or more independent lines of evidence, moderate when a scholarly interpretation was supported by a mapped or observable feature, and tentative when just a single ambiguous depiction was provided. These categories are not statistical probabilities; they prevent claims with unequal evidential support from being presented as equally certain.

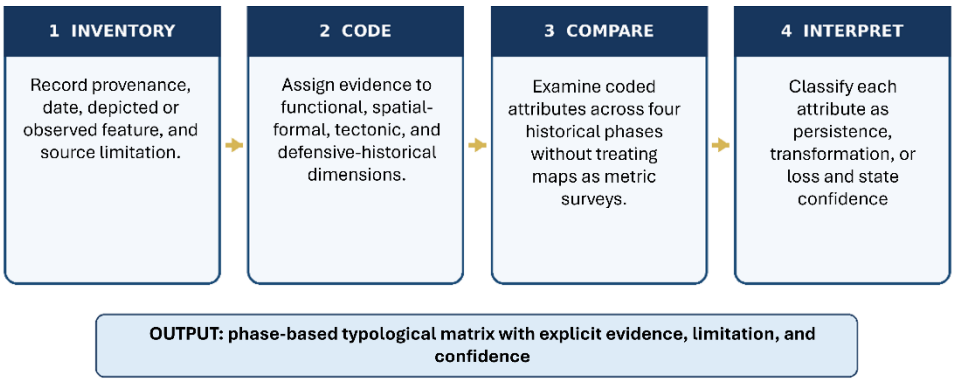


Figure 1. Evidence-to-Typology Analytical Workflow

Triangulation compared historical descriptions with mapped form and extant fabric. Apparent disagreement was retained as an interpretive constraint rather than resolved by assumption. For example, lettered room labels in the published layout reconstruction support broad functional zoning, but some room-level descriptions are internally inconsistent. The analysis therefore uses those labels at zone level and treats precise room assignments as provisional. The same caution applies to stylistic attribution: European influence is associated with documented defensive geometry and construction intervention, not inferred from every arch or brick fragment.

RESULTS AND DISCUSSION

Historical sequence as architectural transformation

The evidence indicates four analytically distinct phases rather than a single moment of origin. The first begins with establishment of the sultanate complex during the reigns of Maulana Hasanuddin (1552–1570) and Maulana Yusuf (1570–1580). Historical and archaeological accounts associate the initial palace with Hasanuddin and the strengthening of its enclosing wall with Yusuf (Atlas of Mutual Heritage, 1999; Permana, 2004a). The sequence marks a transition from a royal residence and governmental nucleus towards a more deliberately enclosed center of authority. The early phase established a functional hierarchy that later interventions modified but did not erase.

The second phase encompasses rebuilding after early seventeenth-century fires and the pronounced defensive transformation associated with the conflict between Sultan Ageng Tirtayasa and Sultan Haji. During 1680–1681, Hendrik Lucasz Cardeel was associated with a rectangular fortified enclosure, corner projections or bastions, defensive works near the approach, and a controlled northern entrance (Atlas of Mutual Heritage, 1999; Permana, 2004a). These works changed the palace boundary from a line of separation into a military apparatus. Their typological significance lies not in a wholesale European “style”, but in the grafting of European-derived defensive geometry onto an already functioning sultanate palace.

The third phase is eighteenth-century consolidation. Water pipes installed around 1701 and the documented pools, baths, storage features, and service areas indicate that water management formed part of the compound’s spatial order rather than an incidental amenity (Atlas of Mutual Heritage, 1999; Permana, 2004b). The Roro Denok and Pancuran Mas water features linked to elite residence, garden, service, and hydraulic functions. This infrastructure adds an environmental and operational dimension to the palace type: the compound depended on controlled flows of water as well as controlled flows of people.

The fourth phase begins with the colonial order to dismantle Surosowan during the administration of Herman Willem Daendels (1808–1811). Historical accounts indicate continuing demolition and material loss into the early nineteenth century (Atlas of Mutual Heritage, 1999; Permana, 2004a). The 1825/1826 and 1900 representations are therefore read as evidence of a transition from an operational palace to an archaeological landscape. Ruination removed roofs, upper walls, and

many room divisions, but foundations, paving, perimeter fabric, and water features preserved elements of the former relational system. The four phases and their architectural consequences are synthesized in Table 2, while the chronological representation corpus is presented in Figure 2.

Table 2. Historical Phases and Associated Architectural Transformations

Historical phase	Principal episode	Architectural effect	Typological meaning
I. Formation, 1552–1580	Initial palace under Maulana Hasanuddin; strengthened enclosure under Maulana Yusuf	Royal-governmental nucleus; reinforced boundary and controlled access	Palatial authority expressed through hierarchical zoning and enclosure
II. Rebuilding and defense, 1605–1681	Rebuilding after fires; conflict between Sultan Ageng Tirtayasa and Sultan Haji; Cardeel-assisted works	Rectangular fortified enclosure, corner projections, and controlled northern approach	Sultanate palace program combined with European-derived defensive geometry
III. Consolidation, c. 1701–18th century	Pipe installation and continuing palace operation	Pools, gardens, baths, storage, drainage, and service connections consolidated	Hydraulic and service systems became integral to palace organization
IV. Dismantling and survival, 1808–1900	Colonial dismantling order; continuing material loss; later archaeological condition	Loss of roofs and upper fabric; foundations, paving, walls, and water features remain	Operational palace transformed into a ruin whose type survives relationally

Figure 2 records the six historical representations as an analytical corpus without reproducing the historical map images themselves. Their differing dates, purposes, and graphic conventions are treated as evidence limits, not as discrepancies to be concealed. The sequence corroborates the continuing importance of enclosure and the palace's relationship with the wider city, but it is not interpreted as a uniform measured survey. Table 2 links events to architectural attributes only where documentary, representational, and material evidence can reasonably be aligned.

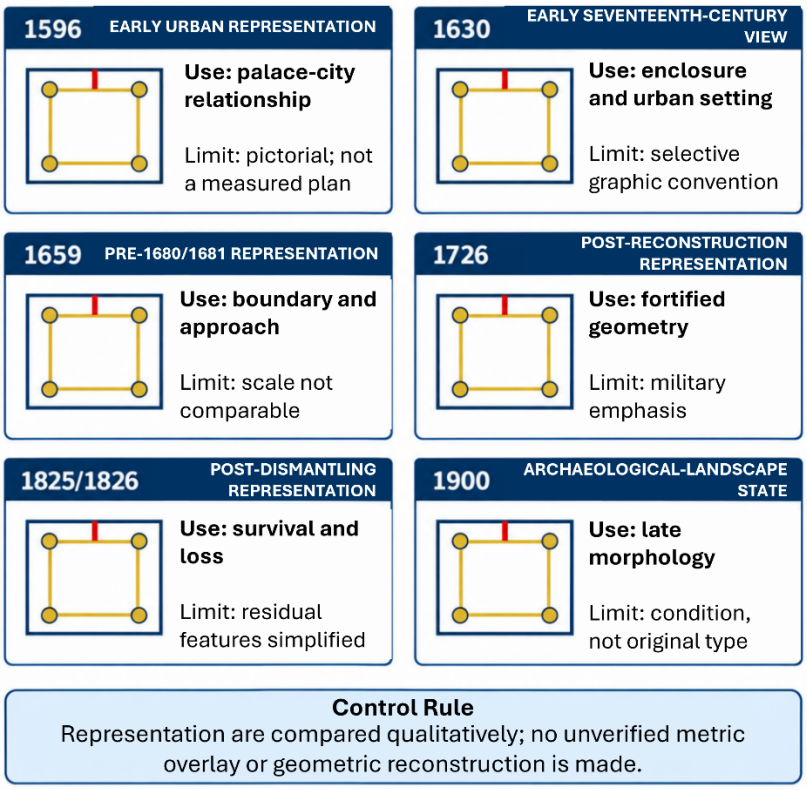


Figure 2. Historical Representation Corpus, 1596–1900
Source: Adapted from (Permana, 2004a)

Typological classification of the palace complex

The comparison identifies Surosowan as a composite fortified palatial compound. "Composite" is important because no single room shape or façade defines the type. Its identity emerges from a coordinated set of components: a royal-governmental core; a protected residential core; a defensive enclosure with controlled approaches; ceremonial and civic interfaces with the square, mosque, market, and port; service and security support; and a garden-and-water system. This classification follows Moneo's (1978) understanding of type as a grouping of shared characteristics while using explicit attributes and evidence levels comparable to recent typological work (Setyadji *et al.*, 2024; Shofie and Prianto, 2025). The type persists as a relational structure even where much of the building mass has disappeared.

Functionally, the published A–H reconstruction differentiates areas associated with government, royal residence, storage, guards, service, gardens, bathing, and water storage (Permana, 2004b). The strongest inference is a gradient of access from public or administrative contact towards protected residential and service areas. Extant foundations cannot independently identify every room, and some descriptions of the lettered zones conflict. Table 3 therefore reports functional clusters rather than assigning absolute use to each fragment. This distinction separates observable form from source-dependent interpretation.

Table 3. Typological Classification and Evidential Basis

Type component	Defining attributes	Evidence	Interpretation	Confidence
Royal-governmental core	Audience, government, administration, and guarded access	Published A–H zoning; archaeological interpretation; foundations	Gradient from civic contact towards protected authority	Moderate; broad zoning stronger than room labels
Residential/ private core	Protected royal residence and family-related functions	Published zoning; relative depth and adjacency	Privacy reinforced by controlled thresholds and internal hierarchy	Moderate; exact room uses remain provisional
Defensive enclosure and access	Perimeter, limited entrances, corner projections, guard-related areas	Historical representations; accounts; extant wall fabric	Controlled boundary with seventeenth-century military adaptation	High at compound scale; phases need fabric study
Ceremonial-civic interface	Relationship with square, mosque, market, and port routes	Historical representations and urban history	Palace embedded in civic, religious, and commercial structures	Moderate; exact routes vary among sources
Service-security support	Guard, storage, weapon-related, and operational spaces	Published zoning; adjacency to access and boundary	Support functions mediated movement and everyday operation	Moderate; assignments are zone-level
Garden-water infrastructure	Roro Denok and Pancuran Mas, bathing, pipes, storage, and drainage	Archaeological plan; descriptions; extant water features	Environmental infrastructure integrated elite and service functions	Moderate–high for system; individual uses provisional
Tectonic/ material system	Brick and coral-derived walls; foundations; tile/ceramic and brick floors	Extant fabric; author photographs; archaeological records	Material differentiation supports hierarchy and circulation	Moderate; social meaning needs corroboration

The compound size as described in the published descriptions is an extended rectangular enclosure of around 3 hectares. The long and short lengths are usually given as about 300 and 100 meters respectively (Atlas of Mutual Heritage, 1999). Sovereignty and security were structured by the perimeter, limited access and internal distinction. To the north, the relationship with the square created a civic and ceremonial interface; the mosque, market, and port situated the palace within a wider urban network. Therefore, Surosowan is best understood as an urban product whose typological significance goes beyond its boundaries (Supriatna, 2020; Hadi Wibowo, 2022). The dimensions are seen as contextual estimations, not proof of exact morphological change, since the historical depictions are not comparable surveys. As shown in Figure 3, the surviving walls, openings, stair remains, room traces, and water features provide material evidence for this compound-scale interpretation.

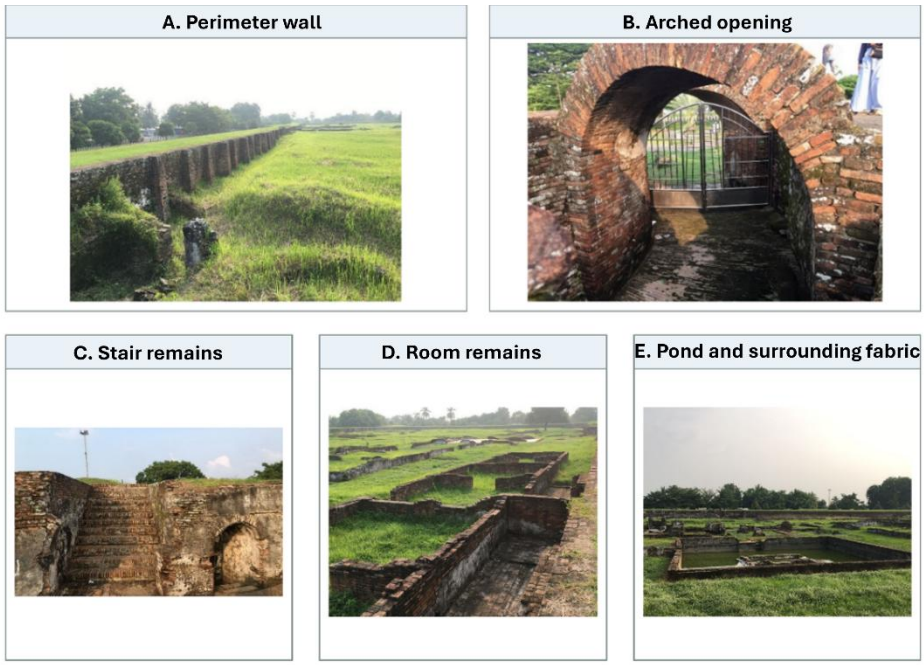


Figure 3. Extant Architectural Evidence: Wall, Opening, Stair, Room, and Water-Feature Remains

Tectonic evidence reinforces the functional hierarchy. Archaeological records distinguish foundation arrangements, while surviving walls show brick construction combined in places with coral-derived material. Floor evidence includes ceramic or tile finishes in selected interior zones and brick paving along circulation or service areas (Permana, 2004b). Material difference cannot by itself prove status, but its distribution is consistent with differentiated investment and use. It should be conserved as stratigraphic evidence rather than homogenized through replacement. Arched openings and stair remain document circulation and threshold conditions, but their stylistic origin cannot be assigned securely without fabric analysis tied to

construction phases. The foundation relationships and floor-pattern evidence underlying this tectonic reading are synthesized in Figure 4. Figure 5 consolidates the preceding functional, spatial, defensive, service, and water-related findings into a compound-scale typological model.

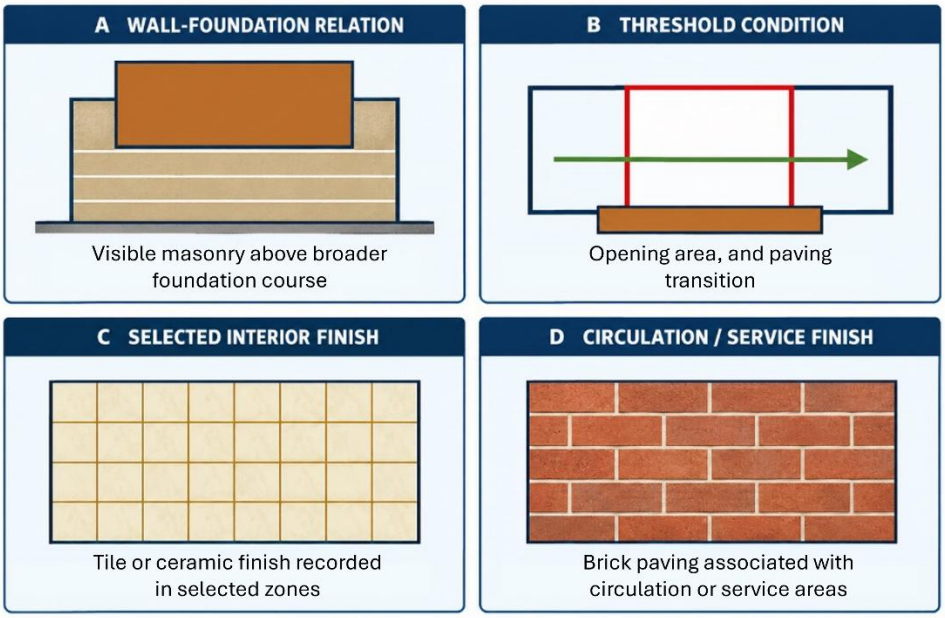


Figure 4. Foundation and Floor-Pattern Evidence: Original Analytical Schematics

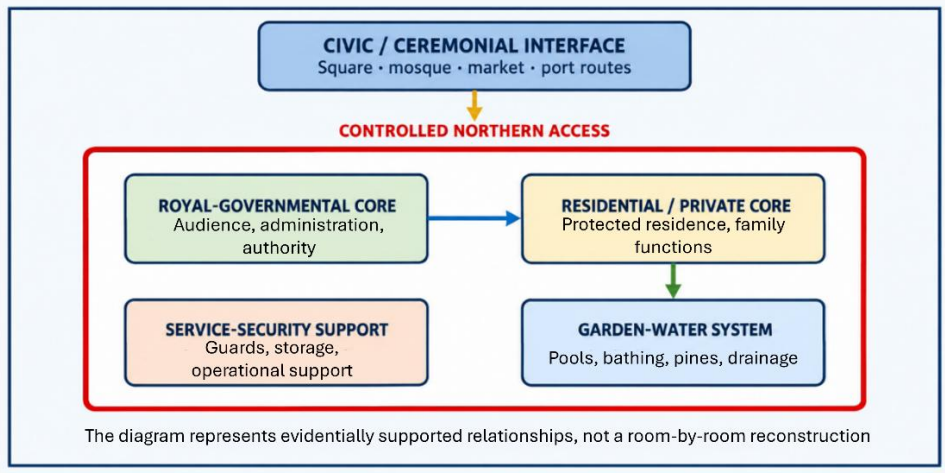


Figure 5. Compound-Scale Typological Relationships (not to scale)

Functional hierarchy, urban interface, and water system

Functional hierarchy remains legible through thresholds and adjacencies even where room names are uncertain. Governmental or audience functions required a controlled relationship with the civic approach, whereas residence and family-related uses demanded deeper protection. Guard, storage, and weapon-related functions supported the boundary and regulated movement. Service spaces and water infrastructure formed a parallel operational network. These relationships are more reliable typological indicators than an attempt to reconstruct a complete façade from scattered walls. They also explain why a similar rectangular room can participate in different components of the type: use is established through position and connection as well as through dimensions or material.

At urban scale, the palace, square, mosque, market, and port formed a linked institutional landscape. The palace boundary separated royal authority, while its northern approach staged contact with the city. The mosque represented religious authority, the plaza the site of civic or ceremonial gathering, and commerce roads linked the court to the port economy. The historical setting of this arrangement may be seen from the accounts of Banten as an aquatic and cosmopolitan city (Supriatna, 2020; Hadi Wibowo, 2022). The perimeter should thus be seen as a managed interaction rather than evidence of isolation. Comparable area-scale heritage analysis likewise shows that architectural meaning depends on urban relationships beyond an individual monument (Pratama and Sardjono, 2023).

Water gives the same argument in an infrastructural form. Pools and garden features are visually prominent, but their typological relevance derives from connections with pipes, bathing, storage, drainage, service activity, and elite space. The early eighteenth-century pipe installation marks an operational change that could support both everyday service and courtly representation. Because this study did not excavate or instrumentally survey the hydraulic network, the direction and capacity of individual flows are not reconstructed. Nevertheless, convergence among the published plan, historical description, and extant water features justifies classifying water management as a principal component of the palace rather than landscape decoration.

The distinction between type and state of preservation also clarifies the role of the 1900 representation and the present ruins. A ruined state is not a separate architectural type; it is the material condition through which the former type must now be inferred. Some components—such as the perimeter, foundations, paving transitions, and ponds—remain directly legible, whereas others survive only through relationships documented in historical and archaeological records. This layered legibility requires triangulation. It also allows scholars to revise a room assignment or date without invalidating the compound-scale classification.

Persistence, transformation, and historical meaning

The defensive-historical dimension explains the most visible transformation. Local palatial organization preceded Cardeel's intervention; the later bastioned enclosure did not create the palace ex nihilo. Conversely, describing the complex only as "Javanese" would omit the documented seventeenth-century military adaptation. The resulting type is historically layered: a sultanate program and hierarchy accommodated imported defensive logic under conditions of internal conflict and VOC pressure. This relational interpretation is in line with historic urban landscape research in which cultural importance is seen as an interplay between material fabric, urban location, historical process and current management rather than as a collection of discrete stylistic features (Ginzarly, Houbart and Teller, 2019).

Across the four phases, persistence and change are uneven. Royal-governmental purpose, controlled access, civic position, and internal differentiation persist at the level of organization. Defensive geometry, gate configuration, selected materials, and water infrastructure changed through intervention and repair. Roofs, upper stories, furnishings, and many room boundaries are largely lost. The surviving site therefore supports a typological argument at compound and zone scale more strongly than at the scale of façade composition or precise room appearance. The persistence, transformation, and loss of these attributes, together with their conservation implications, are summarized in Table 4.

Table 4. Persistence, Transformation, and Conservation Implications

Status	Attributes	Conservation implication
Persistent	Royal-governmental purpose; hierarchical access; civic position; enclosure as an ordering device	Conserve relationships among fragments and their connection with the wider Old Banten landscape
Transformed	Defensive geometry and entrances; water infrastructure; selected materials and floor treatments	Present layers diachronically; do not collapse all fabric into one "original" moment
Largely lost	Roofs, upper walls, furnishings, many room divisions, and fine-grained circulation details	Avoid conjectural physical reconstruction; distinguish observation, inference, and hypothesis

Contribution and limitations

This interpretation changes the conservation priority. If Surosowan is treated only as isolated masonry, stabilization may preserve individual fragments while weakening the spatial evidence that connects them. Documentation should instead record the perimeter, thresholds, foundations, paving changes, hydraulic features, and visual relationships as one system. Interventions should be reversible and distinguishable, and uncertain room assignments should not be reconstructed as certain. Evidence-

aware digital approaches may help connect geometry with provenance and confidence rather than produce smooth but unsupported reconstruction (Acierno *et al.*, 2017; Demetrescu, 2018; Croce *et al.*, 2021; Penjor *et al.*, 2024; Gunawan, 2026). The phase matrix offers a practical structure for such documentation because it separates observed fabric, source-based inference, and hypothesis.

Management must also operate at the scale of Old Banten. Earlier revitalization research identified intertwined physical, social, economic, and institutional pressures in the wider heritage area (Hizmiakanza and Rahmawati, 2019). Work on Situ Tasikardi and the Banten Lama complex further underlines the need to balance contemporary use, historical legibility, and coordinated site governance (Andiyan and Budianto, 2021; Fadillah, 2025). For Surosowan, this means integrating archaeological fabric, visitor movement, drainage, the square-facing approach, and interpretation of the wider urban landscape. Emergency documentation and risk planning should also recognize that cultural property protection extends to periods of armed conflict (Vitrana *et al.*, 2025). These measures address the tension between heritage value and development pressure observed in other Indonesian settings (Prima and Yanto, 2025).

The study has corresponding limits. The historical representations are heterogeneous rather than comparative surveys; excavation records are not equally detailed for every zone; and the 2024 field record is visual, without new stratigraphic excavation, material testing, or subsurface survey. Statements about individual room functions, the dates of separate fabric phases, and the origin of particular architectural details therefore remain conditional. A future measured survey, archival-provenance audit, mortar and brick analysis, and georeferenced comparison of excavation plans could test and refine the proposed classification. The present contribution is not a definitive reconstruction, but an auditable structure for asking which evidence supports each typological claim.

CONCLUSIONS

Surosowan Palace is better understood as a composite fortified princely complex rather than a single structure characterized by one layout or style. Its recurring form is a hierarchically differentiated royal-governmental center, a protected residential core, a regulated defensive enclosure, service and security zones, civic links with the square and surrounding city, and an integrated garden-and-water system. These interactions materialized at the size that remains archaeologically via brick and coral fabric, diverse foundations and varying floor treatments.

History did not merely provide a background to this typology. Formation of the sultanate established the palace program; fortification under Maulana Yusuf strengthened enclosure; the 1680–1681 conflict and Cardeel-assisted works introduced more explicit defensive geometry; eighteenth-century hydraulic works consolidated water and service functions; and early nineteenth-century colonial dismantling transformed an operating palace into a field of fragments. The analysis therefore distinguishes persistent functional-spatial relationships from transformed defensive, tectonic, and infrastructural attributes.

The study contributes a phase-based typological matrix that connects historical events to traceable architectural evidence while preserving uncertainty. For heritage practice, spatial relationships and construction layers should be conserved together with individual walls. Interpretive or digital reconstructions should distinguish observed remains, evidence-supported inferences, and hypotheses. Further archival verification, measured recording, material analysis, and georeferenced comparison of excavation plans are required before room-level or stylistic claims can be made with greater confidence.

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