

Exhibition Design Strategies within Heritage Architectural Settings: A Comparative Study of Museum Gedung Sate and Museum Konferensi Asia Afrika

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Abstract

Exhibition design plays a critical role in mediating historical narratives within heritage architectural settings, where curatorial decisions must negotiate conservation constraints, institutional mandates, and visitor engagement. This study addresses the fundamentally different institutional and narrative statuses of Museum Gedung Sate and Museum Konferensi Asia Afrika in Bandung. Museum Gedung Sate operates within an active governmental building and emphasizes digital and immersive forms of interpretation, whereas Museum Konferensi Asia Afrika functions as a commemorative institution grounded in a specific historical event and sustained thematic narrative continuity. Using a qualitative comparative approach based on observation, interviews, and document analysis, the study examines how narrative structure, spatial configuration, and interpretive strategies are shaped by these contrasting institutional contexts. The findings indicate that exhibition performance is strongly influenced by curatorial continuity, levels of technological integration, and the rigidity of heritage conservation frameworks. Museum Gedung Sate demonstrates flexibility and experimentation in digital storytelling but encounters challenges in maintaining narrative coherence, while Museum Konferensi Asia Afrika sustains strong thematic clarity with limited interpretive adaptability. This study contributes an analytical benchmarking framework for exhibition design within heritage architecture, highlighting how institutional positioning fundamentally conditions narrative strategies and offering insights for developing more coherent, context-sensitive, and visitor-centered museum exhibitions.

Keywords: *Comparative Study; Exhibition Design; Heritage; Museum; Narrative Strategy*

Introduction

Bandung is known for its rich collection of colonial heritage buildings, including Gedung Sate and Gedung Merdeka. Both sites possess significant historical value and currently function as museums that interpret the city's cultural and political narratives. Museum Gedung Sate adopts a contemporary exhibition approach that integrates digital and interactive media to communicate architectural history and governmental heritage. In contrast, the Museum Konferensi Asia Afrika presents historical content through a thematic, archival-based narrative that emphasizes the diplomatic legacy of the 1955 Asian–African Conference. Together, these two institutions represent distinct strategies for designing exhibitions within protected heritage environments ([Ayu, 2023](#); [Bappeda Jawa Barat, 2018](#)).

The two museums examined in this study differ fundamentally in their institutional orientation, narrative focus, and the role assigned to architecture within the exhibition. Museum Konferensi Asia Afrika is an event-centered museum in which the exhibition is primarily dedicated to narrating a single historical event, namely the 1955 Asian–African Conference. In this context, the building functions mainly as a historical container that lends authenticity to the event, rather than as an exhibition object in its own right. Consequently, the exhibition relies predominantly on archival research, historical documents, photographs, and memorabilia related to the Conference, while only a limited portion of the exhibition addresses the architectural history of Gedung Merdeka.

Museum Gedung Sate is a building-centered museum in which the architecture itself functions as the primary exhibition object. Gedung Sate continues to operate as a governmental building, while the museum occupies only a limited portion of the overall structure. The exhibition focuses on the building's architectural background, construction process, symbolism, and continuous institutional use. This condition positions Gedung Sate as a form of living heritage, where the exhibition narrative is directly integrated with exposed original construction elements, architectural documentation, and digital interpretive media such as virtual and augmented reality.

Heritage buildings in Indonesia are legally protected under Cultural Heritage Law No. 11 of 2010, which requires that any spatial or interpretive intervention respect architectural authenticity and established conservation principles. This legal framework significantly influences how both museums design and manages their exhibitions ([Kemendikbud, 2018](#)). While Museum Gedung Sate employs technologies such as augmented reality, virtual reality, and interactive displays to engage younger audiences, the Museum Konferensi Asia Afrika emphasizes documentary evidence, dioramas, and historically grounded spatial arrangements. These contrasting approaches demonstrate how heritage settings shape curatorial decisions, visitor interpretation, and narrative structure.

According to the International Council of Museums, a museum is defined as an institution responsible for collecting, preserving, documenting, interpreting, and exhibiting objects of significance for research and public education. The concept of the museum originates from Ancient Greek traditions, where it functioned as a place for study and intellectual exchange, often associated with libraries. Today, museums have become an integral part of tourism, recreation, and education, contributing significantly to cultural and social infrastructure ([ICOM, 2022](#)).

Despite their respective strengths, both museums encounter structural and managerial challenges that affect the overall effectiveness of their exhibitions. Museum Gedung Sate faces recurring issues related to technological maintenance, limited narrative renewal, and the absence of sustained curatorial leadership, all of which constrain the long term development of its exhibition content. In contrast, Museum Konferensi Asia Afrika is challenged by spatial constraints, strict conservation regulations, and the need to periodically reinterpret its long established narrative framework to remain meaningful for contemporary audiences. These differing conditions underscore the importance of examining how internal factors such as curatorial continuity, content strategy, and institutional capacity, as well as external factors such as heritage conservation requirements and evolving visitor expectations, collectively shape exhibition quality and interpretive effectiveness ([Utama, 2024](#); [Pertiwi & Yudana, 2018](#); [Arbi et al., 2019](#); [Ramadhan et al., 2025](#)).

Comparative analysis of these two museums is therefore necessary to understand how narratives are constructed, how space is utilized, and how interpretive media are selected within similar heritage contexts. Such an analysis provides an opportunity to identify best practices as well as shared challenges that may inform more coherent and visitor-centered exhibition strategies. Insights derived from this comparison can assist heritage museums in strengthening interpretive depth, integrating technology in a sustainable manner, and developing

collaborative curatorial models that support long-term relevance. However, existing research rarely compares digital-interactive and archival-historical exhibition models under comparable heritage constraints, resulting in limited understanding of how these contrasting approaches respond to conservation regulations, spatial limitations, and evolving visitor expectations. This gap underscores the need for a focused comparative analysis to clarify how different curatorial strategies shape narrative coherence and overall exhibition effectiveness in heritage-based museums.

This background leads to several key research questions:

1. What narrative, spatial, and interpretive strategies are implemented in the exhibitions of Museum Gedung Sate and the Museum Konferensi Asia Afrika?
2. How do internal and external factors influence the effectiveness of these exhibition design approaches, particularly within the constraints of heritage architecture and institutional resources?
3. How can comparative insights from the two museums be used to formulate coherent, visitor-centered exhibition strategies that support sustainable interpretation in heritage-based museum environments?

Literature Review

1. Narrative Construction and Interpretation in Heritage Museums

Exhibition design plays a central role in how museums communicate with their audiences. It functions not only to display collections but also to create meaningful and engaging visitor experiences. Effective exhibition design integrates curatorial objectives, visual composition, technological applications, and communication strategies to convey coherent narratives. Visual elements such as typography, illustration, symbols, color, lighting, and spatial layout are essential in directing visitor attention and shaping interpretive consistency ([Ibrahim et al., 2018](#)). Material experimentation also constitutes an important aspect of exhibition practice. Contemporary approaches increasingly emphasize the use of sustainable materials and digital fabrication techniques, such as laser cutting, to enhance production efficiency while reducing material waste ([Locker, 2011](#)).

Beyond visual and material considerations, exhibition design also relies on practical design methodologies that enable museums to translate conceptual ideas into effective visitor experiences. These methodologies include interviews, observation, scenario development, mapping techniques, and basic forms of prototyping that allow design teams to test concepts and refine interpretive strategies. In museum practice, such approaches facilitate collaboration among curators, designers, and educators, allowing diverse forms of expertise to contribute to coherent and innovative exhibition solutions ([Mason & Vavoula, 2021](#)).

The reviewed body of literature positions narrative construction as an intentional design process rather than a purely descriptive outcome. It provides a conceptual foundation for distinguishing museums that foreground event-based narratives from those that emphasize architectural or spatial narratives. This distinction constitutes a core component of the study's comparative framework, particularly in explaining why the Museum Konferensi Asia Afrika primarily constructs its narrative through archival documentation of the Asia–Africa Conference, whereas Museum Gedung Sate frames the building itself as the central narrative subject.

2. Exhibition Techniques within Conservation Constraints of Heritage Architecture

Designers must understand and comply with strict conservation regulations intended to protect the original structure of heritage buildings or sites, as the architecture itself often functions as a primary artifact that requires careful treatment. In many cases, exhibition structures may not be directly attached to walls or floors, necessitating the use of free-standing display elements. Conservation considerations also include the regulation of temperature, humidity, and lighting to prevent material deterioration. Designers therefore face ongoing challenges in balancing visitor accessibility with conservation requirements, particularly in relation to exhibition orientation and interpretive strategies ([Locker, 2011](#)).

When exhibitions are installed within heritage buildings, designers must comply with strict conservation

principles. Heritage structures are often treated as primary artifacts, which restrict physical interventions such as attaching exhibition elements directly to walls or floors. Consequently, the use of free-standing display systems, controlled lighting, and continuous monitoring of temperature and humidity becomes essential ([Locker, 2011](#)).

Although adaptive reuse is widely recognized as a sustainable strategy for preserving heritage buildings, it must be carefully managed to prevent damage to original materials or disruption of existing microclimates ([Fanya et al., 2025](#)). In the Indonesian context, heritage exhibition design is further governed by regulatory frameworks, including Cultural Heritage Law No. 11 of 2010 and Ministry of Public Works Regulation No. 01 of 2015, which define technical procedures, feasibility assessments, conservation ethics, and the role of professional bodies such as the Cultural Heritage Building Expert Team (TABG-CB).

The role of heritage buildings extends beyond functioning merely as spaces for exhibition. They are artifacts that must be managed in accordance with legal, technical, and ethical conservation requirements. These principles form an important framework for this study, which examines how different exhibition techniques respond to conservation demands across museum contexts. This perspective helps explain why the Museum Konferensi Asia Afrika predominantly employs archival and non-invasive display methods, whereas Museum Gedung Sate incorporates exposed architectural features into its exhibition strategy, positioning the building itself as an active component of interpretation.

3. Digital-Interactive and Archival-Historical Exhibition Models

Visitor flow and accessibility are critical components of exhibition design. Inclusive spatial layouts support logical circulation, visitor comfort, and equal access for diverse audiences, including children and people with disabilities. International accessibility standards emphasize requirements such as appropriate ramp gradients, door widths, handrail heights, and accessible interpretive formats, including Braille labels, audio guides, and sign language support. Contemporary museums increasingly integrate interactive technologies, such as augmented reality (AR) and digital simulations, to create immersive visitor experiences. For instance, Museum Gedung Sate employs AR to reconstruct historical construction processes, thereby enriching interpretive narratives without compromising architectural authenticity ([Nazhar & Rosid, 2020](#); [Ramadhan et al., 2025](#); [Loureiro, 2021](#)).

Overall, exhibition design in both modern museums and heritage contexts requires the integration of coherent narrative interpretation, thoughtful spatial planning, appropriate technological enhancement, and strict adherence to conservation ethics. Effective collaboration among designers, museum managers, conservation experts, and government institutions is essential to ensure that exhibitions remain educational, authentic, accessible, and culturally sustainable.

Literature provides a conceptual basis for distinguishing between archival-historical and digital-interactive exhibition models. It supports the comparative analysis by clarifying how the Museum Konferensi Asia Afrika relies on archival materials, documents, and memorabilia to reconstruct a specific historical event, whereas Museum Gedung Sate integrates digital technologies such as augmented reality alongside architectural exposure and physical artifacts. This distinction strengthens the interpretation of each museum's narrative strategy in relation to its building, institutional role, and conservation context.

Taken together, these themes form the analytical framework of this study, explaining how narrative focus, conservation constraints, and media selection are shaped by the heritage status of each building. This framework allows a structured comparison of Museum Gedung Sate and the Museum Konferensi Asia Afrika within established discourses on heritage exhibition design.

Methodology

This study employs a qualitative comparative research design to examine how Museum Gedung Sate and Museum Konferensi Asia Afrika develop exhibition strategies within heritage-protected architectural settings (see Figure 1). The methodological structure was designed to ensure analytical transparency by clearly defining the stages of data collection, the criteria applied during field observation, and the systematic application of Pam Locker's exhibition design framework in the comparative analysis.

1. Stages of Data Collection

Data collection was conducted in three sequential stages that were applied consistently to both case studies.

First, structured on-site observations were carried out at Museum Gedung Sate and the Museum Konferensi Asia Afrika. The observations focused on the exhibition as experienced in situ and examined spatial layout, narrative sequencing, visitor circulation, and the use of interpretive media, whether digital or conventional. Observation activities were conducted using the same order of examination at both sites to maintain consistency between cases.

Second, semi-structured interviews were undertaken with museum staff, educators, designers, and academic experts involved in exhibition development or heritage management. The interviews aimed to clarify curatorial intentions, institutional objectives, technological considerations, and conservation constraints influencing exhibition design decisions. In accordance with qualitative research principles, the number of interviewees was not predetermined. Data collection continued until information saturation was reached, meaning that no substantially new insights emerged from additional interviews ([Creswell, 2018](#)).

Third, document analysis was conducted to support and contextualize the primary data. The analyzed documents included institutional reports, exhibition guides, historical archives, policy documents, and scholarly literature related to heritage interpretation and exhibition design. These documents were used to verify historical accuracy, clarify institutional narratives, and cross-check empirical findings derived from observations and interviews.

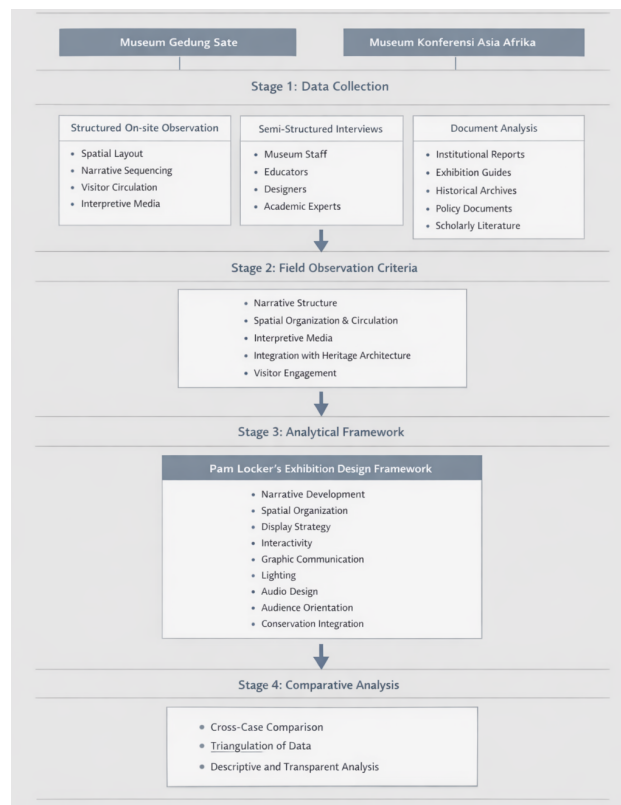


Figure 1. Research Framework

Source: Author

2. Criteria Applied During Field Observation

To ensure methodological clarity and reproducibility, field observations were guided by a fixed set of criteria applied equally to both museums. These criteria included:

1. Narrative structure, examining the clarity, sequencing, and coherence of exhibition storylines.
2. Spatial organization and circulation, focusing on layout configuration, visitor movement patterns, and zoning of exhibition content.

3. Interpretive media, identifying the types of media employed, such as digital installations, archival displays, dioramas, or graphic panels, and their relationship to narrative delivery.
4. Integration with heritage architecture, assessing how exhibition elements respond to conservation requirements and interact with original architectural features.
5. Visitor engagement, based on observable interaction modes, accessibility of information, and alignment between spatial design and audience orientation.

All observations were recorded descriptively and organized according to these criteria prior to comparison.

3. Operationalization of Pam Locker's Exhibition Design Framework

Pam Locker's exhibition design framework was used as the primary analytical structure to organize and interpret the empirical data. Rather than functioning as an abstract reference, the framework was operationalized into concrete analytical dimensions that guided both observation and comparison. These dimensions included narrative development, spatial organization, display strategy, interactivity, graphic communication, lighting, audio design, audience orientation, and conservation integration.

Empirical findings from each museum were first analyzed independently by mapping observation results, interview insights, and document evidence onto these dimensions. This process allowed each exhibition to be examined in relation to recognized exhibition design principles while remaining grounded in site-specific conditions.

4. Comparative Procedure and Analytical Transparency

The comparative analysis was conducted using a systematic cross-case approach. Following the completion of individual analyses for each museum, the findings were systematically compared across identical analytical dimensions derived from Pam Locker's exhibition design framework. This approach ensured that similarities and differences were examined through consistent analytical lenses, rather than through descriptive comparison alone.

Triangulation of data obtained from on-site observations, semi-structured interviews, and document analysis was employed to enhance the credibility and reliability of the interpretations ([Kumar, 2014](#); [Creswell, 2018](#)). A structured descriptive analysis was applied to identify recurring patterns related to narrative construction, spatial organization, interpretive media, and conservation practices. Although the analysis did not utilize formal qualitative coding software, the application of consistent observation criteria, clearly defined analytical dimensions, and systematic comparison stages enables the analytical process to be replicated in studies of comparable heritage museum contexts.

Through this explicitly defined methodological structure, the study ensures that its comparative findings are grounded in documented procedures and transparent analytical steps, thereby addressing concerns related to replicability, data accuracy, and methodological rigor in qualitative exhibition design research.

Result and Discussion

1. Exhibition Strategy and Interpretive Design at Museum Gedung Sate

Museum Gedung Sate occupies a preserved colonial building designed by Johan Gerber in 1920–1924 and functions today as a public education space that applies a Smart Museum concept integrating digital technology with an edutainment approach to communicate the history of Gedung Sate in an engaging and accessible way. The exhibition is designed using non-invasive methods to protect the original architectural elements of the heritage building, and all display panels, interactive screens, and digital installations are freestanding to comply with conservation standards. The exhibition content focuses on the construction history of Gedung Sate, its architectural character, and the evolution of its function from the Dutch colonial administration to the present government of West Java. Historical narratives are delivered through both linear and reverse chronological flows using text, audiovisual material, and interactive media. A variety of digital features are incorporated, such as AR and VR simulations of the building's construction and hot-air-balloon viewpoints, holograms, interactive glass displays, video mapping, and 3D architectural models that allow visitors to explore historical information in an immersive manner (see Figure 2).

The exhibition design at Museum Gedung Sate combines historical narratives, architectural interpretation,

and interactive technology to create an accessible and engaging visitor experience. The museum introduces the history of the building's construction through documentation, original blueprints, and construction artifacts, while a dedicated architectural gallery highlights J. Gerber's design approach that merges European neoclassical principles with Indonesian cultural elements. The storyline is supported by thematic galleries on significant events related to Gedung Sate and complemented by Sundanese cultural installations that reinforce West Java's identity. These components are enhanced through technologies such as interactive floors, augmented reality, interactive glass displays, and virtual reality, which provide responsive graphics and 3D simulations. The overall presentation is strengthened by supporting facilities including a historical film auditorium, an observation deck at the tower, a merchandise shop, and certified educators who guide visitors through the museum's interpretive content ([Nazhar, 2023](#)).

The audiovisual room presents narrative films, although some visitors have noted that certain materials, such as the Sangkuriang animation, feel less relevant to the building's historical context. The exhibition also presents historical documents like original blueprints through ghost paper technology, architectural replicas, and bilingual explanatory panels to support comprehension for diverse age groups. The journal also notes several challenges, including stagnant curatorial updates due to the absence of an active curator, malfunctioning digital features, unclear contextualization for certain displays such as hero bone artifacts, and a lack of exhibition renewal that causes local visitors to lose interest. Overall, the exhibition demonstrates how digital technology can revitalize historical storytelling in a protected heritage building and create an educational and immersive experience that aligns with contemporary museum expectations ([Anom et al., 2024](#)).

Museum Gedung Sate, as an interpretive and educational extension of an active government heritage building, will adopt a technology-mediated exhibition strategy to address the limitations of its original object collection. Digital simulations, AR–VR reconstructions, and holographic displays will enable the building itself to function as the primary artifact, allowing its architectural history to be interpreted without invasive physical intervention. In this context, digital media will operate not as aesthetic enhancements but as interpretive instruments that make architectural processes and historical transformations legible to contemporary audiences ([Parry, 2010](#)).

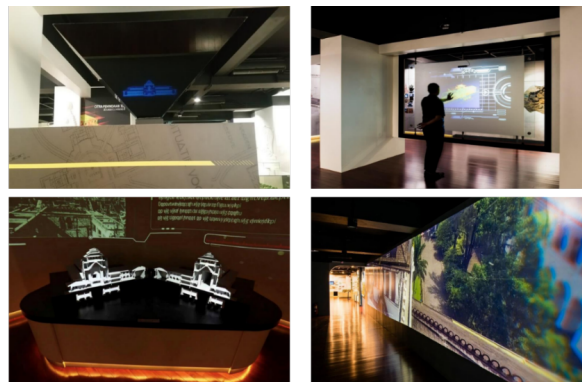


Figure 2. Museum Gedung Sate Facilities
Source: Author

2. Exhibition Strategy and Commemorative Narrative at Museum Konferensi Asia Afrika

Museum Asia Afrika presents a comprehensive and chronological narrative of the 1955 Bandung Conference through thematic storylines, archival photographs, historical panels, political context displays, the Dasasila Bandung section, dioramas, press-equipment replicas, and profiles of delegates and participating nations. Its exhibition layout follows a thematic and romantic (evocative) approach that invites visitors to relive the atmosphere of the conference, with displays arranged on a meso-scale that aligns with human proportions. The modular layout is carefully synchronized with the heritage building's structural columns, ceiling height, doors, and windows, creating an effective balance of positive and negative space that directs visitor sightlines toward key objects. Structural columns are integrated into display modules without obstructing views, while natural daylight is minimized through semi-transparent roller blind shades to protect sensitive materials and preserve the original historic windows. Electrical installations are discreetly embedded within display furniture, maintaining clean visual presentation throughout the

gallery ([Kusbiantoro et al., 2022](#); [Hermawan et al., 2022](#)).

The exhibition design of the Museum Konferensi Asia Afrika emphasizes an Art Deco character and presents a structured historical narrative through three-dimensional objects, archival photographs, dioramas, multimedia installations, and documentary materials. The permanent galleries display items associated with the 1955 Asian–African Conference, the Bogor Conference, and the Colombo Conference, together with photographs that explain the event’s background, participating nations, and the global impact of the Bandung Meeting. The museum’s architectural features, such as Cikenhout wood panels, crystal lighting, and Italian marble floors, reinforce the Art Deco aesthetic and frame the exhibition environment. A diorama of the conference’s opening scene provides a vivid visual representation, while multimedia and audiovisual rooms present country profiles, documentary films on global conditions before the 1950s, and cultural footage from Asia and Africa. The museum also includes a library that houses books, magazines, newspapers, and journals related to the history, politics, and cultures of Asian and African nations. The main conference hall is preserved with its original seating and table arrangement to maintain historical authenticity and allow visitors to experience the atmosphere of the 1955 event. The overall spatial layout follows a geometric organization in which built-in display units are integrated into the walls, columns, and floor, resulting in a coherent circulation pattern that supports clear storytelling and enhances the interpretive experience (([Hermawan et al., 2022](#); [Permana et al., 2021](#)).

Lighting and multimedia systems further shape the exhibition experience. Indirect uplighting and accent lamps enhance the emotional tone and clarity of two- and three-dimensional objects, although current halogen downlights would be more suitable if replaced with LED or fiber-optic systems to avoid heat damage and improve color accuracy. Floor reflections can be minimized by using carpet or vinyl for more controlled illumination. Multimedia elements such as documentary footage, recorded speeches, guided explanations, and integrated audio are presented through built-in units, with sound quality potentially optimizable through sound domes to prevent audio leakage between zones. Together with preserved architectural features, clear circulation flow, and a coherent storyline, these design strategies create an immersive, visually rich, and historically grounded exhibition that allows visitors to deeply engage with Bandung’s role in global anti-colonial cooperation (see Figure 3).

Museum Konferensi Asia Afrika, a memorial museum dedicated to the 1955 Asian–African Conference, prioritizes archival authenticity and narrative continuity over technological mediation. Its extensive documentary collections and preserved conference spaces allow historical meaning to be conveyed through material evidence and spatial experience, thereby reinforcing the museum’s commemorative role. This event-centered orientation supports a controlled spatial sequence and favors built-in displays that emphasize historical authority and emotional coherence ([MacLeod, 2018](#)).



Figure 3. Museum Asia Afrika Facilities

Source: Author

3. Analytical Interpretation of Exhibition Strategies

The contrasting exhibition strategies of Museum Gedung Sate and the Museum Konferensi Asia Afrika are primarily shaped by their differing institutional roles. Museum Gedung Sate functions as an interpretive and educational extension of a living heritage building with a limited original collection, whereas the Museum Konferensi Asia Afrika operates as a memorial museum centered on a singular, globally significant historical event. These

institutional conditions explain the reliance on digital interpretive media at Gedung Sate and the emphasis on archival authenticity and spatial continuity at the Asian–African Museum. Digital technologies often emerge as strategic responses to interpretive gaps, particularly when architecture itself becomes the primary historical object (Parry, 2010).

Narrative orientation serves as a key determinant of spatial organization and media selection in both museums. Museum Gedung Sate adopts a building-centered narrative in which architecture functions simultaneously as the subject and the medium of interpretation. This approach enables flexible, layered circulation supported by freestanding displays and immersive digital media, allowing visitors to explore architectural history without altering the heritage fabric (Locker, 2011).

In contrast, the Museum Konferensi Asia Afrika employs an event-centered narrative structured around the chronological progression of the 1955 Bandung Conference. This orientation requires a controlled spatial sequence in which circulation, sightlines, and built-in displays reinforce historical causality and political significance. The reliance on dioramas, archival photographs, and preserved spaces reflects a commemorative strategy that prioritizes narrative clarity and emotional coherence over interactive experimentation (MacLeod, 2018). Media choices in both museums therefore follow narrative intent rather than technological availability that effective exhibition media are context-driven (Schweibenz's, 2019).

Although both museums adhere to conservation principles, they operationalize these principles through distinct design strategies. Museum Gedung Sate emphasizes non-invasive and reversible interventions, employing freestanding digital installations that preserve the colonial structure while enabling interpretive flexibility. In this context, the heritage building functions both as a narrative backdrop and as an interpretive object, aligning with ICOM's (2022) position that conservation and interpretation should be mutually reinforcing.

Museum Konferensi Asia Afrika integrates exhibition elements directly into the architectural fabric through built-in displays aligned with the original structural modules. This approach reinforces architectural continuity as a carrier of historical meaning, consistent with Locker's view that spatial form communicates subliminal messages through materiality and permanence. These findings indicate that conservation integration in heritage exhibitions operates along a spectrum shaped by narrative intent, institutional mandate, and architectural significance.

4. Comparative Analysis Based on Pam Locker's Framework

After examining the exhibition characteristics of both museums, it becomes necessary to compare how each institution interprets and presents historical content within its heritage setting. A clearer understanding of their differences and similarities can be achieved by organizing the analysis according to Pam Locker's conceptual categories, which are widely used to assess exhibition design practices. These categories highlight fundamental aspects such as narrative construction, spatial planning, display methods, visitor engagement, visual communication, lighting, and the integration of conservation principles. By viewing the two museums through this structured lens, the comparative distinctions and shared approaches become more evident. The following table summarizes these findings in a concise and systematic manner.

Comparison of Museum Gedung Sate and the Museum Konferensi Asia Afrika is guided by Pam Locker's Exhibition Design as grand theory, which outlines key dimensions of exhibition practice, including narrative development, spatial organization, display strategy, interactivity, graphic communication, lighting, audio design, audience orientation, and conservation integration. These aspects reflect the multidisciplinary considerations required to shape meaning, guide visitor movement, and address architectural constraints in heritage settings. Using this framework ensures that both museums are assessed according to recognized exhibition design standards, allowing their differences, similarities, and design implications to be interpreted systematically. The summary of this comparison is presented in the Table 1 below.

Table 1. Comparasion Table with Exhibition Design approach

Pam Locker Guidelines	Museum Gedung Sate	Museum Konferensi Asia-Afrika (KAA)
1. Storytelling & Narrative Space	Applies an edutainment narrative that combines historical text with digital technologies such as AR–VR, holograms, interactive glass, and video mapping to create an immersive narrative space. Its storyline is presented through both linear and reverse chronological flows, enhancing visitor engagement through interactive digital experiences.	It uses a strong thematic storyline that follows the sequence of the 1955 Asian-African Conference, presented through an evocative or romantic approach that encourages visitors to “relive” the 1955 atmosphere through archival photographs, dioramas, and sequential exhibition content.
2. Spatial Organization & Circulation	Exhibition space follows non-invasive freestanding design to preserve the heritage structure. A linear flow integrated with interactive points supports multilayered experiences, while visitor movement is guided by visual and digital elements that make use of the building’s large-scale heritage layout.	Layout follows a clockwise sequence starting from the introductory globe. Large structural columns frame the space, and built-in displays align with their modules to focus visitor attention on key objects. The balance of positive and negative space is well managed, supporting a clear chronological storyline.
3. Display & Representation	Displays are dominated by interactive screens, holograms, 3D models, and digital projections. Most objects are represented digitally due to limited original collections, with historical content presented through touchscreen blueprints and reconstruction simulations (construction VR) as non-invasive forms of representation.	All displays are built into the walls and columns, reflecting a classical conservation approach. The museum presents archival photos, a meso-scale podium diorama, replica press tools, documentary materials, and delegate profiles, relying entirely on physical and visual archival media rather than digital technology.
4. Interactivity & Visitor Engagement	Technology use is very high, incorporating AR, VR, interactive floors, interactive glass, video mapping, and an audiovisual room. It targets younger audiences through Instagrammable and participatory experiences, with technology serving as the main engagement tool despite ongoing maintenance challenges.	Interaction is passive and observational, aligning with Locker’s passive experience model. With no digital technology, engagement relies on emotional connection to history through dioramas, large photographs, reconstructed spaces, and thematic narratives.
5. Graphics & Typography	It uses a digital graphic system through screens, infographics, and animations, with visual navigation delivered via screen interfaces. Physical signage is minimal, as digital content replaces many conventional graphic panels.	It employs conventional graphic panels, large photographs, short text labels, and narrative maps. Color, proportion, and photo scale support thematic storytelling, and no digital navigation system is used.

6. Lighting Strategy	Lighting supports digital displays through indirect illumination, spotlights, and projection. Challenges arise in balancing heritage lighting conditions with the specific light requirements of digital equipment.	It uses indirect lighting for general illumination and halogen downlights for accents. A shift to LED or fiber optics is recommended for better collection safety, and electrical installations are concealed within the furniture to meet aesthetic and conservation principles.
7. Audio & Sound Design	An audiovisual room and synchronized multimedia audio support educational content. Sound technology enriches AR/VR experiences, though some equipment performs suboptimally due to limited maintenance.	The sound system uses portable and built-in speakers integrated with basic multimedia. The use of sound domes is recommended to prevent audio leakage between exhibition zones.
8. Audience Orientation & Communication	It is designed for diverse audiences, especially educational visitors and younger groups, using digital media, interactive storytelling, and screen-based displays. A key challenge is the absence of an active curator, which can cause narrative stagnation.	Communication is structured as formal historical education following the event sequence, suitable for students and general visitors. It relies on text, photographs, dioramas, and guided explanations, with traditional formats ensuring clear historical narratives.
9. Conservation & Heritage Integration	All digital installations are freestanding and non-invasive, preserving the colonial structure of Gedung Sate. Technology adds value without altering original architectural elements, with the heritage building itself functioning as a narrative backdrop.	Conservation is strict, with built-in displays aligned to the original column and wall modules. The interior remains largely unaltered, and the existing heritage becomes a core part of the exhibition experience, consistent with Locker's view of space conveying subliminal messages through original architecture.

Source: Author

The comparative analysis based on Pam Locker's framework shows that Museum Gedung Sate and the Museum of the Asian-African Conference employ two distinct yet equally valid exhibition design strategies within heritage environments. Museum Gedung Sate adopts a technology-driven approach, using edutainment narratives, AR/VR applications, and freestanding digital installations to create highly interactive experiences aimed at younger and diverse audiences. In contrast, the Museum of the Asian-African Conference maintains a historically grounded and conservation-focused approach, presenting a thematic 1955 storyline through built-in displays, archival materials, dioramas, and a linear interpretive structure that emphasizes authenticity and historical clarity.

Spatially, Museum Gedung Sate prioritizes flexibility and non-invasive design, whereas the Asian-African Museum highlights the integrity of its original architecture as an active narrative element. Their representational strategies also diverge: Gedung Sate relies on digital simulations to compensate for limited physical collections, while the Asian-African Museum leverages rich archival artifacts to preserve the authenticity of its historical narrative. These differences extend to graphics, lighting, audio, and visitor orientation, reflecting a contrast between digital-interactive communication and traditional observational learning. Overall, the comparison demonstrates that the two museums do not compete but instead illustrate two complementary models of interpretation: a contemporary digital-experiential museum and a classical archival-historical museum. Together, they underscore how narrative, space, and media must be carefully adapted to heritage constraints, curatorial objectives, and audience needs to produce meaningful and sustainable exhibition experiences.

This comparative framework can be further understood in the context of global museum practices. While Museum Gedung Sate exemplifies the innovative trend toward digital storytelling and multisensory engagement in heritage settings (Parry, 2010; Schweibenz, 2019), the Museum Konferensi Asia Afrika remains grounded in the romantic museum model that emphasizes archival accuracy and emotional immersion (MacLeod, 2018). Both approaches reflect the dual necessity of engaging contemporary audiences while preserving historical authenticity. As highlighted by (ICOM, 2022), conservation must align with educational goals without compromising integrity. Thus, the dual case study offers not only contrast but complementarity, encouraging heritage museums to blend technological experimentation with curatorial rigor in sustainable ways.

The comparison shows that Museum Gedung Sate and the Museum Konferensi Asia Afrika employ two distinct yet equally effective exhibition design strategies that reflect their heritage settings, curatorial intentions, and audience needs. Museum Gedung Sate's main advantage lies in its strong use of digital and interactive media such as AR, VR, holograms, video mapping, and freestanding installations, which makes historical content more accessible and engaging for younger visitors while preserving the building's architectural integrity. By contrast, the Museum Konferensi Asia Afrika excels through its coherent historical narrative, built-in displays, archival materials, and spatial arrangements that align closely with the original architecture of Gedung Merdeka. This authenticity-centered approach creates an evocative, historically immersive environment without relying heavily on digital technology. Together, these strengths demonstrate that heritage museums can succeed through different strategic pathways: one through technological innovation and multisensory engagement, and the other through narrative clarity, spatial discipline, and conservation-based exhibition design.

Conclusion

Exhibition design strategies within heritage architectural settings are shaped not by technological or archival approaches alone, but by the dynamic relationship between curatorial intent, architectural constraints, and institutional capacity. The comparative analysis of Museum Gedung Sate and Museum Konferensi Asia Afrika confirms that narrative orientation plays a central role in structuring spatial organization, interpretive media, and visitor engagement in heritage-protected environments. Rather than positioning digital and traditional exhibition methods as opposing models, the findings demonstrate that both approaches can function effectively when aligned with a museum's historical role, collection characteristics, and conservation requirements.

Key contribution of this research lies in the systematic application of a comparative analytical framework to exhibition design within living heritage architecture. By operationalizing Pam Locker's exhibition design framework across two contrasting case studies, methodological clarity is strengthened and narrative, spatial, and interpretive components are examined as an integrated system. This approach moves beyond descriptive comparison by explaining how and why distinct exhibition strategies emerge under different architectural and institutional conditions, thereby enhancing analytical rigor and supporting research replicability.

The findings further indicate that exhibition effectiveness is conditioned by both internal and external factors. Internally, curatorial continuity, technological maintenance, content development, and staffing capacity influence the sustainability of interpretive strategies. Externally, heritage conservation regulations, governance structures, financial resources, and evolving visitor expectations delimit the scope of exhibition intervention. Within heritage architectural settings, principles of reversibility and non-intrusiveness therefore operate not only as conservation requirements but also as strategic design considerations that shape exhibition outcomes.

In practical terms, the analysis highlights the value of hybrid exhibition strategies that combine the immersive potential of digital media with the narrative clarity and authenticity of archival interpretation. Heritage museums may enhance accessibility and long-term relevance by adopting scalable and maintainable technologies, strengthening curatorial management, and aligning interpretive media with architectural constraints and visitor needs.

For future research, the comparative framework developed here offers a transferable model for analyzing exhibition strategies in other heritage museum contexts. Further investigations may extend this framework by incorporating visitor experience evaluation, long-term assessments of technological sustainability, or cross-cultural comparisons across different heritage typologies. By positioning exhibition design as a relational practice shaped by narrative, space, media, and institutional context, this research contributes to the advancement of exhibition design

discourse within heritage architecture and supports the development of coherent, sustainable, and visitor-centered museum environments.

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