



Cinematology: Journal Anthology of Film and Television Studies

Journal homepage: <https://ejournal.upi.edu/index.php/Cinematology/index>



Integrasi Unsur Budaya dalam Visualisasi Video Mapping di Indonesia Integration of Cultural Elements in Video Mapping Visualization in Indonesia

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ABSTRACT

Indonesia possesses a rich and diverse cultural heritage, including mythological narratives, historical struggles, and traditional ornamental patterns. This study examines how traditional cultural symbols are deconstructed and transformed within video mapping, what symbolic visual elements represent local culture, and how these elements are reconstructed into cultural meaning in live performances. A qualitative multiple-case study was conducted on three Indonesian projection mapping performances: Swadharma Ning Pertiwi at GWK Bali, the Fatahillah Museum in Jakarta, and performances at Gedung Sate and Villa Isola in West Java. Findings indicate that cultural integration operates through context-sensitive deconstruction, visual deformation through lateral thinking, architectural integration, and meaning construction through interaction among projected imagery, architecture, technology, and cultural interpretation. Stuart Hall's constructionist approach explains how meaning is actively produced, while Edward de Bono's lateral thinking explains the creative transformation of cultural concepts into contemporary visual metaphors. The study proposes a five-stage Cultural Integration Framework: Cultural Identification, Cultural Deconstruction, Visual Deformation, Architectural Integration, and Meaning Construction.

ARTICLE INFO

Article History:

Submitted/Received 11 Aug 2025

First Revised 12 Feb 2025

Accepted 18 March 2025

First Available online 22 June 2026

Publication Date 22 June 2026

Keyword:

A Video Mapping;

B Local Culture ;

C Representation.

D Lateral Thinking;

E Deformation Visual;

1. INTRODUCTION

Indonesia is widely recognized as one of the world's richest countries in terms of cultural diversity. Its cultural heritage encompasses tangible and intangible elements, including traditional architecture, mythology, historical narratives, rituals, performing arts, ornaments, and indigenous philosophies that have developed across thousands of islands for centuries. These cultural assets not only function as historical records but also represent collective identities that continue to shape contemporary Indonesian society. Nevertheless, the rapid advancement of digital technology has transformed the ways cultural knowledge is produced, communicated, and experienced, creating new challenges for preserving cultural values while maintaining their relevance to younger generations.

In Indonesia, projection mapping has gradually developed into a significant artistic medium within festivals, public celebrations, cultural events, and heritage conservation programs. Since the early projection mapping performances at the Fatahillah Museum in Jakarta (Fauzi & Herlambang, 2020), Indonesian visual artists have explored the integration of local cultural narratives into large-scale architectural projections (Praditya, 2019). Subsequent projects, including Swadharma Ning Pertiwi at Garuda Wisnu Kencana (GWK) (Kurnia, 2021), projection mapping performances at Gedung Sate, Villa Isola, and numerous regional cultural festivals, demonstrate an increasing interest in transforming traditional cultural knowledge into immersive digital experiences. Rather than reproducing traditional visual elements literally, these performances reinterpret mythology, historical events, architectural identity, and local philosophies through contemporary visual languages, allowing cultural narratives to remain relevant within the digital era.

Current scholarly discussions on projection mapping have predominantly focused on technological development, visitor experience, interactive media, tourism promotion, and digital heritage visualization (Jones, 2015). Several recent studies investigate the effectiveness of projection mapping in museums and cultural heritage sites, highlighting its ability to increase visitor engagement and improve cultural interpretation (Li & Ito, 2021). However, relatively few studies examine the creative mechanisms through which traditional cultural symbols are deconstructed, transformed, and reconstructed into immersive visual narratives. Existing literature rarely discusses how designers reinterpret cultural meaning through visual deformation, architectural adaptation, and symbolic abstraction, particularly within Indonesian cultural contexts.

The novelty of this study lies in the integration of Stuart Hall's constructionist theory of representation (Hall, 1997) with Edward de Bono's lateral thinking framework (De Bono, 1990) to explain the creative transformation of cultural symbols within projection mapping. Rather than viewing projection mapping solely as an audiovisual technology, this research positions it as a process of cultural reconstruction in which architecture, animation, and symbolic representation collaboratively generate new meanings. Through comparative analysis of three Indonesian case studies, this article proposes a conceptual framework explaining how cultural narratives undergo processes of deconstruction, visual deformation, and meaning construction within contemporary new media art, thereby contributing to broader discussions in visual communication design, digital heritage, and media arts.

Projection mapping therefore represents more than a technological innovation; it constitutes a new communication paradigm (Manovich, 2001) in which architecture functions simultaneously as medium, interface, and narrative object. Rather than projecting

independent visual content onto a neutral screen, designers develop visual compositions that interact directly with architectural forms. Windows, columns, reliefs, ornaments, domes, and structural lines become compositional elements that determine movement, rhythm, and narrative sequencing. Consequently, architecture actively shapes the visual language of projection mapping instead of merely supporting it.

Li and Ito (2021) argue that projection mapping applied to heritage sites should prioritize the communication of cultural values rather than merely producing spectacular visual effects. Their comparative analysis of forty-five international projection mapping projects demonstrates that many performances emphasize decorative animation while neglecting the historical significance of the heritage site itself. They propose that effective projection mapping should establish a clear relationship between projected content and the historical identity of the architectural object.

Recent research further suggests that heritage architecture itself functions as an active mediator within projection mapping (Rahmat, 2019). Architectural scale, surface geometry, historical significance, and symbolic identity influence the selection of projected imagery and determine appropriate narrative structures. Rather than treating architecture as a neutral projection surface, designers must recognize that each building possesses intrinsic meanings that guide visual interpretation. Projection mapping therefore becomes a dialogue between digital technology and cultural architecture, where the projected narrative emerges through interaction between physical space and digital visualization.

Hall identifies three principal approaches to representation (Hall, 1997): the reflective approach, the intentional approach, and the constructionist approach.

Hall ultimately advocates the constructionist approach, arguing that meaning is produced through socially shared systems of signs. Images, colors, movement, sound, and spatial relationships collectively construct meaning rather than merely reflecting reality (Hall, 1997; Difa & Setyawan, 2024). Projection mapping therefore functions as a representational system in which architecture, animation, lighting, and audience perception interact to generate new cultural interpretations.

Projection mapping provides an ideal environment for lateral thinking (De Bono, 1990) because the medium itself requires continuous adaptation between digital imagery and architectural surfaces. Historical buildings, monuments, and sculptures rarely possess flat projection surfaces. Consequently, designers must reinterpret visual concepts according to architectural geometry while preserving narrative coherence. This process inevitably involves deformation, abstraction, and symbolic reconstruction (Ambrose & Harris, 2010).

Integrating Edward de Bono's theory with Stuart Hall's constructionist representation (De Bono, 1990; Hall, 1997) establishes the conceptual foundation of this research. Lateral thinking explains the creative mechanisms responsible for transforming traditional cultural concepts into innovative visual symbols, whereas representation theory explains how those transformed symbols construct new meanings through digital media. Together, these theories provide a comprehensive framework for analyzing the integration of Indonesian cultural elements within contemporary projection mapping performances.

Accordingly, this study aims to examine how Indonesian cultural narratives are selected, deconstructed, visually transformed, and reconstructed into meaning through projection mapping. The study asks how cultural symbols are adapted to architectural surfaces, how lateral thinking supports visual deformation, and how representation is produced through the interaction of imagery, architecture, technology, and cultural interpretation. The resulting analysis is intended to contribute a conceptual framework for culturally grounded projection mapping practice.

2.METHODS

This study employed a qualitative multiple-case study design (Moleong, 2017) to examine how local cultural elements are transformed into projection mapping performances in Indonesia. A multiple-case approach was selected because it enables recurring patterns and distinctive characteristics to be compared across different cultural narratives, architectural typologies, and visual communication strategies.

The research employed a qualitative multiple-case study approach to examine how local cultural identities are interpreted, transformed, and represented through immersive digital projection mapping. The case study approach was adopted because it enables an in-depth investigation of contemporary artistic and technological practices within their real-world cultural and spatial contexts (S. S. Nafsika et al., 2023). By examining multiple cases, the study seeks to identify both context-specific characteristics and recurring patterns in the relationship between cultural heritage, digital visual representation, and immersive audience experiences (S. S. Nafsika et al., 2026).

Three cases were purposively selected: *Swadharma Ning Pertiwi* at Garuda Wisnu Kencana (GWK) in Bali, projection mapping at the Fatahillah Museum in Jakarta, and projection mapping performances at Gedung Sate and Villa Isola in West Java. The cases were selected because they represent different cultural contexts while sharing a common objective of translating local identity into immersive digital experiences. The selection was guided by three criteria: (1) the incorporation of local cultural narratives, symbols, or historical identities into digital visual content; (2) the use of architectural or spatial environments as integral components of projection mapping performances; and (3) the potential of each case to reveal similarities and differences in the processes of cultural interpretation, audiovisual transformation, and immersive spatial representation. This comparative design provides a basis for cross-case analysis, allowing the study to examine how distinct cultural settings influence the aesthetic, technological, and narrative strategies employed in projection mapping practices.

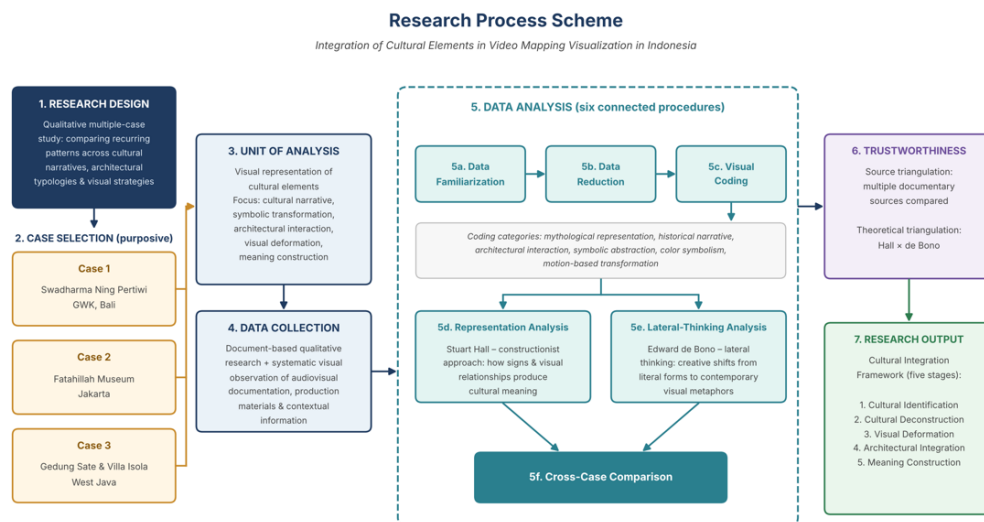


Figure 1. Research Method process

The primary unit of analysis was the visual representation of cultural elements. The analysis focused on cultural narrative, symbolic transformation, architectural interaction, visual deformation, and meaning construction. Data were collected through document-based qualitative research and systematic visual observation of available audiovisual documentation, production materials, and contextual information related to each performance (Kurnia, 2021; Seeds Motion, 2018).

The analysis was conducted through six connected procedures: data familiarization, data reduction, visual coding, representation analysis, lateral-thinking analysis, and cross-case comparison (Miles & Huberman, 1994). Visual coding identified recurring categories such as mythological representation, historical narrative, architectural interaction, symbolic abstraction, color symbolism, and motion-based transformation. Stuart Hall's constructionist approach was used to examine how signs and visual relationships produce cultural meaning (Hall, 1997), while Edward de Bono's lateral thinking framework was used to identify creative shifts from literal cultural forms toward contemporary visual metaphors (De Bono, 1990). analytical credibility was strengthened through source and theoretical triangulation. Multiple documentary sources were compared where available, while the complementary use of Hall's representation theory and de Bono's lateral thinking enabled the findings to be interpreted from both cultural and creative perspectives.

3.RESULTS AND DISCUSSION

The findings are presented as a comparative discussion of three projection mapping contexts. Rather than treating the cases as isolated technical productions, the analysis examines how cultural knowledge, architectural form, symbolic transformation, and audience oriented meaning construction operate together within each performance.

From a visual communication perspective, the sculpture was not treated merely as a projection surface but as an active narrative medium. The physical form of Garuda and Vishnu became inseparable from the projected animation, allowing mythology, architecture, sculpture, and digital media to merge into a unified visual language.

The first chapter, Harmony of Nature, visualizes the creation of the universe (Seeds Motion, 2018). Instead of immediately introducing the GWK monument, the performance begins with dynamic representations of natural elements including water, light, earth, vegetation, and cosmic energy. These animated sequences symbolize gratitude toward nature as the origin of human existence. The visual rhythm is intentionally calm, emphasizing organic movement and gradual transformation to establish emotional engagement before the narrative progresses toward mythological themes.



Figure 2. Video Mapping Swadharma Ning Pertiwi (GWK, Bali)

This transformation demonstrates that cultural preservation within digital media does not necessarily require literal replication. Instead, cultural identity is maintained through conceptual continuity while visual forms are adapted to contemporary media environments.

For example, the visualization of flowing energy across the monument possesses no direct equivalent within traditional Balinese visual culture. Nevertheless, audiences interpret these animated sequences as expressions of divine power because meaning emerges from relationships among color, movement, architectural scale, and contextual narrative rather than from individual visual objects alone. Edward de Bono's concept of lateral thinking further explains the creative mechanisms underlying the projection mapping design (De Bono, 1990; Kurnia, 2021). This creative strategy explains why the performance avoids literal storytelling. Instead of presenting mythology as a chronological sequence of historical events, the designers reconstructed cultural values through metaphorical animation, spatial transformation, and symbolic abstraction. Such an approach allows the projection mapping to communicate complex philosophical ideas while remaining visually engaging for contemporary audiences.

Third, the performance illustrates that contemporary projection mapping can construct new systems of cultural meaning without abandoning traditional philosophical foundations. Through the interaction of architecture, animation, sound, symbolism, and audience perception, Swadharma Ning Pertiwi transforms a monumental sculpture into an immersive

cultural narrative that bridges Indonesian heritage with contemporary digital media. this transformation illustrates a significant shift in the role of architecture within visual communication. The museum is no longer perceived merely as a historical object containing collections; instead, it becomes an active storyteller capable of narrating its own historical trajectory. Consequently, the building operates simultaneously as an architectural heritage, projection surface, and narrative medium.



Figure 3. Video Mapping Museum Fatahillah (Jakarta)

One of the most remarkable characteristics of the Fatahillah projection mapping is its chronological narrative structure (Fauzi & Herlambang, 2020). The visual story unfolds sequentially, beginning with representations of Jakarta's natural environment before colonial occupation. Animated forests, rivers, and wildlife gradually emerge across the museum façade, establishing an ecological landscape that predates urban development. These opening sequences communicate that Jakarta's history extends beyond colonial narratives, emphasizing the city's environmental origins before political transformation.

The concluding sequence depicts Jakarta as a contemporary creative metropolis. Urban infrastructure, traffic systems, communication networks, graffiti, popular culture, and digital technologies become integrated with traditional Indonesian visual motifs. This final transformation supports the project's central message, Transforming Old Town as a Creative Playground, suggesting that historical heritage should function as a foundation for future creativity rather than remaining confined to nostalgic preservation. whereas the GWK sculpture primarily contributes symbolic and sculptural qualities, the Fatahillah Museum contributes architectural order through its colonial symmetry, repetitive windows, vertical columns, and geometric proportions. These architectural characteristics become integral components of the animation design. Columns also contribute significantly to spatial storytelling. Through carefully synchronized projection, columns appear to bend, rotate, disappear, and reassemble. Such optical transformations generate the illusion that the rigid colonial structure has become alive and capable of responding to historical change. The animation therefore establishes an intimate dialogue between digital media and architectural identity. another important finding concerns the process through which historical events undergo visual deformation before being translated into digital narratives.

Traditional Indonesian decorative motifs also undergo significant abstraction. Rather than appearing as static ornamental patterns, these motifs become animated textures that continuously interact with contemporary graphic forms, graffiti aesthetics, and digital particle systems (S. Nafsika et al., 2022). Consequently, traditional culture is positioned not as a relic

of the past but as a living component of contemporary urban identity. from Stuart Hall's perspective, the Fatahillah projection mapping strongly reflects the constructionist model of representation (Hall, 1997).

This observation illustrates Hall's argument that representation functions as an active cultural practice (Hall, 1997). Historical meaning is neither inherent within the building nor entirely determined by the designers' intentions. Instead, meaning is produced through the symbolic system created by animation, architectural interaction, and audience interpretation. Edward de Bono's theory of lateral thinking provides additional insight into the creative strategy underlying the performance (De Bono, 1990). the designers also employed associative thinking by connecting unrelated concepts.including colonial architecture, digital technology, graffiti culture, archival photography, and traditional Indonesian motifs.into a unified visual narrative. Although these elements originate from different historical periods, projection mapping integrates them into a coherent representation of Jakarta's evolving cultural identity.

The Fatahillah Museum case demonstrates that projection mapping can transform architectural heritage into an active medium of historical interpretation. Unlike conventional museum exhibitions, where buildings function primarily as containers of historical artifacts, projection mapping allows architecture itself to participate directly in storytelling.second, colonial architecture becomes an integral component of visual communication. Architectural elements such as windows, columns, and pediments are incorporated into narrative composition, demonstrating that meaning emerges through interaction between digital imagery and physical architecture.

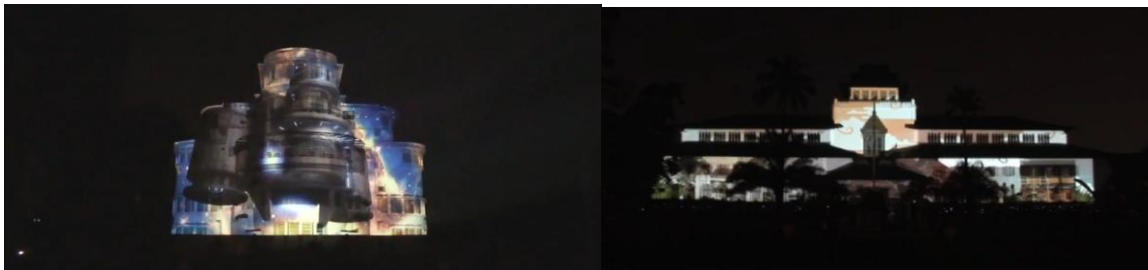


Figure 4. Video Mapping Gedung Sate dan Villa Isola (Jawa Barat)

Projection Mapping at Gedung Sate and Villa Isola, West Java

Despite differences in architectural form, Gedung Sate and Villa Isola share several important characteristics. Both are colonial-era landmarks that have become enduring symbols of Bandung and West Java. Gedung Sate, completed in 1924, combines Dutch Rationalism, New Indies architecture, and local Sundanese elements, making it one of the most recognizable governmental buildings in Indonesia. Villa Isola, designed by C.P. Wolff Schoemaker in 1933, represents one of the finest examples of Art Deco architecture in Southeast Asia while simultaneously incorporating cosmological concepts that respond to the surrounding landscape and the axis toward Mount Tangkuban Parahu.

The projection mapping performance *What a Wonderful Jabar*, presented during the anniversary celebration of West Java Province, transforms Gedung Sate into an audiovisual representation of regional history and cultural identity. Instead of emphasizing governmental authority, the performance positions the building as a visual archive narrating the evolution

of West Java from its natural landscape and ancient kingdoms to its contemporary role as one of Indonesia's creative provinces. another prominent visual strategy is the integration of traditional performing arts with digital animation. Musical visualization inspired by gamelan rhythms is translated into pulsating light patterns, while kinetic movements evoke the dynamics of Sundanese dance without directly reproducing choreographic performances. Such abstraction allows intangible cultural heritage to be communicated through contemporary visual language while preserving its symbolic identity.

Whereas Gedung Sate emphasizes regional identity, the projection mapping performances at Villa Isola concentrate more strongly on architectural history and cultural continuity.

Warm interior lighting symbolizes domestic life during the building's earliest period. This atmosphere gradually transforms into darker visual compositions representing political uncertainty during wartime. The concluding sequences introduce educational symbolism through books, typography, scientific illustrations, and abstract representations of knowledge, reflecting the building's present identity as an academic institution. both Gedung Sate and Villa Isola demonstrate sophisticated processes of visual deformation in representing local culture.

This process illustrates that visual deformation within projection mapping should be understood as conceptual translation rather than aesthetic simplification (Ambrose & Harris, 2010). Traditional culture remains recognizable because its philosophical foundations are preserved even though its visual appearance undergoes significant adaptation. gedung Sate no longer signifies merely a government office. Through projection mapping, it becomes a symbol of collective memory, creativity, and regional pride. Likewise, Villa Isola transcends its historical identity as a colonial residence and is reconstructed as a cultural landmark representing education, intellectual development, and architectural continuity.

Lateral Thinking Analysis

For example, mountain landscapes become flowing light structures rather than photographic scenery. Batik motifs evolve into dynamic motion graphics instead of decorative borders. Educational values are represented through expanding constellations of light and kinetic typography rather than classroom imagery.

The analysis of Gedung Sate and Villa Isola reveals that regional identity within projection mapping is constructed through continuous negotiation between historical heritage and technological innovation.

First, architecture functions not merely as a projection surface but as an active narrative framework shaping visual composition and storytelling strategies. collectively, the Gedung Sate and Villa Isola case studies strengthen the central argument of this research that projection mapping functions as a medium of cultural reconstruction. Through the integration of architectural characteristics, symbolic abstraction, and lateral thinking, traditional cultural values are not merely preserved but continuously reinterpreted, enabling Indonesian cultural heritage to remain relevant within the context of contemporary new media art.

Although each projection mapping performance originated from different cultural backgrounds, architectural settings, and narrative objectives, the findings reveal a remarkably consistent creative process. Across all three cases, designers did not directly reproduce

traditional cultural objects. Instead, cultural knowledge underwent a sequence of conceptual reinterpretation, symbolic abstraction, architectural adaptation, and digital reconstruction before being presented to audiences through projection mapping.

This process corresponds closely with deconstruction within visual communication design. Rather than preserving every historical detail, designers identify the conceptual essence that can be effectively communicated through immersive media.

Stage 1 – Cultural Identification

The identified cultural resources are subsequently deconstructed into their essential conceptual values. Rather than treating mythology as a collection of characters, designers identify values such as sacrifice, wisdom, spirituality, and harmony. Rather than treating historical events as chronological records, designers identify concepts such as memory, resilience, transformation, and identity.

Stage 4 – Architectural Integration

Finally, audiences construct cultural meaning through interactions among projected imagery, architecture, music, movement, and prior cultural knowledge. Meaning therefore emerges through experience rather than direct explanation. This framework synthesizes Stuart Hall's constructionist theory with Edward de Bono's lateral thinking model. Hall explains how meaning is socially constructed through systems of representation (Hall, 1997). De Bono explains how creative transformation enables traditional concepts to become innovative visual symbols (De Bono, 1990).

The comparative findings suggest that projection mapping should be understood not simply as a visualization technology but as a medium of cultural reconstruction. Unlike conventional heritage interpretation, which often prioritizes preservation of original forms, projection mapping prioritizes preservation of conceptual meaning. This distinction is particularly important within contemporary visual communication design. Cultural sustainability is achieved not by preventing visual transformation but by ensuring that philosophical values remain recognizable despite formal innovation. The proposed Cultural Integration Framework demonstrates that successful projection mapping depends upon balancing three interconnected dimensions.

The third is technological integration, allowing architecture, animation, sound, and spatial interaction to operate as a unified communication system.

Each building contributes different narrative possibilities. the Garuda Wisnu Kencana sculpture provides sculptural complexity capable of expressing mythology through monumental symbolism. The Fatahillah Museum provides historical architectural elements that naturally support historical storytelling. Gedung Sate represents governmental and regional identity, while Villa Isola contributes architectural rhythm and educational symbolism. This process illustrates conceptual displacement, one of the defining characteristics of lateral thinking. Instead of asking how cultural objects should look, designers ask what cultural values should be communicated. Consequently, projection mapping becomes an exercise in conceptual visualization rather than literal illustration

Rather than focusing on a single projection mapping performance, this research adopted a multiple-case study design. Multiple-case studies enable researchers to compare recurring

patterns across different cases while identifying distinctive characteristics that emerge from individual contexts. Cross-case comparison also improves analytical robustness by allowing conceptual similarities and differences to be systematically identified instead of relying upon conclusions drawn from a single performance.

Three Indonesian projection mapping performances were purposively selected because they represent different forms of cultural narratives, architectural typologies, and visual communication strategies while sharing a common objective of integrating local culture into immersive digital experiences. The third case consists of projection mapping performances presented at Gedung Sate and Villa Isola in West Java. These two heritage buildings were analyzed together because both performances reinterpret regional history and Sundanese cultural identity while employing different architectural characteristics and visual strategies.

The primary unit of analysis in this research is the visual representation of cultural elements within projection mapping performances. More specifically, analysis focuses on six interconnected components:

Architectural interaction between projected imagery and the physical characteristics of the building or monument.

Meaning construction resulting from interactions between digital imagery, architecture, cultural context, and audience interpretation. Data were collected through document-based qualitative research combined with systematic visual observation. Rather than relying upon a single source of evidence, this study employed multiple documentary sources to strengthen analytical credibility. Using various forms of documentation allows the interpretation of visual narratives to be supported by historical, theoretical, and production-related information, thereby reducing the risk of subjective interpretation.

Following Miles and Huberman's (1994) qualitative analysis procedure, visual information irrelevant to the research questions was excluded. Attention was directed toward scenes explicitly representing cultural narratives, architectural interaction, symbolic transformation, and visual storytelling.

Mythological representation & Architectural interaction

Rather than identifying only visual similarities with traditional cultural objects, this stage examined how designers reconstructed conceptual meanings into contemporary digital forms. Cross-case analysis examined similarities and differences regarding:

lateral thinking process,

Second, theoretical triangulation was applied through the integration of Stuart Hall's representation theory and Edward de Bono's lateral thinking framework (Hall, 1997; De Bono, 1990). Employing two complementary theoretical perspectives enabled interpretation from both cultural and creative dimensions.

This framework enables the research to explain not only what cultural symbols appear within projection mapping performances, but also how and why these symbols are transformed into new systems of visual meaning within contemporary new media art.

From a visual communication perspective, the sculpture was not treated merely as a projection surface but as an active narrative medium. The physical form of Garuda and Vishnu became inseparable from the projected animation, allowing mythology, architecture, sculpture, and digital media to merge into a unified visual language.

The first chapter, Harmony of Nature, visualizes the creation of the universe (Seeds Motion, 2018). Instead of immediately introducing the GWK monument, the performance begins with dynamic representations of natural elements including water, light, earth, vegetation, and cosmic energy. These animated sequences symbolize gratitude toward nature as the origin of human existence. The visual rhythm is intentionally calm, emphasizing organic movement and gradual transformation to establish emotional engagement before the narrative progresses toward mythological themes.

This transformation demonstrates that cultural preservation within digital media does not necessarily require literal replication. Instead, cultural identity is maintained through conceptual continuity while visual forms are adapted to contemporary media environments.

For example, the visualization of flowing energy across the monument possesses no direct equivalent within traditional Balinese visual culture. Nevertheless, audiences interpret these animated sequences as expressions of divine power because meaning emerges from relationships among color, movement, architectural scale, and contextual narrative rather than from individual visual objects alone.

Edward de Bono's concept of lateral thinking further explains the creative mechanisms underlying the projection mapping design (De Bono, 1990; Kurnia, 2021).

This creative strategy explains why the performance avoids literal storytelling. Instead of presenting mythology as a chronological sequence of historical events, the designers reconstructed cultural values through metaphorical animation, spatial transformation, and symbolic abstraction. Such an approach allows the projection mapping to communicate complex philosophical ideas while remaining visually engaging for contemporary audiences.

Third, the performance illustrates that contemporary projection mapping can construct new systems of cultural meaning without abandoning traditional philosophical foundations. Through the interaction of architecture, animation, sound, symbolism, and audience perception, Swadharma Ning Pertiwi transforms a monumental sculpture into an immersive cultural narrative that bridges Indonesian heritage with contemporary digital media.

This transformation illustrates a significant shift in the role of architecture within visual communication. The museum is no longer perceived merely as a historical object containing collections; instead, it becomes an active storyteller capable of narrating its own historical trajectory. Consequently, the building operates simultaneously as architectural heritage, projection surface, and narrative medium.

One of the most remarkable characteristics of the Fatahillah projection mapping is its chronological narrative structure (Fauzi & Herlambang, 2020). The visual story unfolds sequentially, beginning with representations of Jakarta's natural environment before colonial occupation. Animated forests, rivers, and wildlife gradually emerge across the museum façade, establishing an ecological landscape that predates urban development. These

opening sequences communicate that Jakarta's history extends beyond colonial narratives, emphasizing the city's environmental origins before political transformation.

The concluding sequence depicts Jakarta as a contemporary creative metropolis. Urban infrastructure, traffic systems, communication networks, graffiti, popular culture, and digital technologies become integrated with traditional Indonesian visual motifs. This final transformation supports the project's central message, Transforming Old Town as a Creative Playground, suggesting that historical heritage should function as a foundation for future creativity rather than remaining confined to nostalgic preservation.

Whereas the GWK sculpture primarily contributes symbolic and sculptural qualities, the Fatahillah Museum contributes architectural order through its colonial symmetry, repetitive windows, vertical columns, and geometric proportions. These architectural characteristics become integral components of the animation design.

Columns also contribute significantly to spatial storytelling. Through carefully synchronized projection, columns appear to bend, rotate, disappear, and reassemble. Such optical transformations generate the illusion that the rigid colonial structure has become alive and capable of responding to historical change. The animation therefore establishes an intimate dialogue between digital media and architectural identity. Another important finding concerns the process through which historical events undergo visual deformation before being translated into digital narratives.

Traditional Indonesian decorative motifs also undergo significant abstraction. Rather than appearing as static ornamental patterns, these motifs become animated textures that continuously interact with contemporary graphic forms, graffiti aesthetics, and digital particle systems. Consequently, traditional culture is positioned not as a relic of the past but as a living component of contemporary urban identity. From Stuart Hall's perspective, the Fatahillah projection mapping strongly reflects the constructionist model of representation (Hall, 1997).

This observation illustrates Hall's argument that representation functions as an active cultural practice (Hall, 1997). Historical meaning is neither inherent within the building nor entirely determined by the designers' intentions. Instead, meaning is produced through the symbolic system created by animation, architectural interaction, and audience interpretation.

Edward de Bono's theory of lateral thinking provides additional insight into the creative strategy underlying the performance (De Bono, 1990).

The designers also employed associative thinking by connecting unrelated concepts, including colonial architecture, digital technology, graffiti culture, archival photography, and traditional Indonesian motifs, into a unified visual narrative. Although these elements originate from different historical periods, projection mapping integrates them into a coherent representation of Jakarta's evolving cultural identity.

The Fatahillah Museum case demonstrates that projection mapping can transform architectural heritage into an active medium of historical interpretation. Unlike conventional museum exhibitions, where buildings function primarily as containers of historical artifacts, projection mapping allows architecture itself to participate directly in storytelling.

Second, colonial architecture becomes an integral component of visual communication. Architectural elements such as windows, columns, and pediments are incorporated into narrative composition, demonstrating that meaning emerges through interaction between digital imagery and physical architecture.

Comparative Synthesis and Cultural Integration Framework

Across the three cases, the comparative findings reveal a recurring sequence of cultural translation. The process begins with identifying a cultural resource that is relevant to the site and the intended narrative. The resource may take the form of mythology, historical memory, local philosophy, ornament, ritual, or regional identity.

The selected resource is then deconstructed into its essential conceptual values. Mythology can be reduced to ideas such as harmony, sacrifice, spirituality, or wisdom, while historical narratives can be translated into memory, resilience, transformation, and identity. This step prevents cultural integration from becoming a process of surface-level decoration.

The conceptual values subsequently undergo visual deformation through abstraction, symbolic transformation, motion design, spatial composition, and architectural adaptation. In this process, lateral thinking enables designers to move away from the question of how a traditional object should literally appear and toward the question of what cultural value should be communicated.

Architectural integration then synchronizes the digital composition with the physical characteristics of the projection surface. Windows, columns, sculptural forms, ornaments, proportions, and structural rhythms become active components of the visual language rather than passive backgrounds.

Finally, meaning is constructed through the relationship among projected imagery, architecture, movement, sound, cultural context, and audience interpretation. This stage reflects Hall's constructionist perspective: cultural meaning is produced through systems of signs and their relationships, not simply contained within an image itself.

Based on these findings, the study proposes a five-stage Cultural Integration Framework consisting of Cultural Identification, Cultural Deconstruction, Visual Deformation, Architectural Integration, and Meaning Construction. The framework connects cultural authenticity with creative transformation and technological integration, offering a practical and theoretical model for developing projection mapping that remains culturally meaningful while employing contemporary visual languages.

4. CONCLUSION

Overall, the study demonstrates that projection mapping can function as a contemporary medium of cultural reconstruction rather than merely a technology for visual spectacle. Its contribution to cultural communication depends on the ability to preserve conceptual and philosophical values while allowing visual forms to change. Future research may test the

proposed framework with additional Indonesian and international cases and incorporate audience-centered methods to examine how culturally embedded projection mapping is interpreted in practice.

5. AUTHORS' NOTE

Farhan Mutawakkil is a Master's student in the Art Education Program at the Graduate School, Indonesia University of Education. This article forms part of his master's thesis research on the integration of local culture into new media art, particularly video mapping, within the context of contemporary visual art in Indonesia. The authors declare that there is no conflict of interest regarding the publication of this article and confirm that the manuscript is an original academic work.

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