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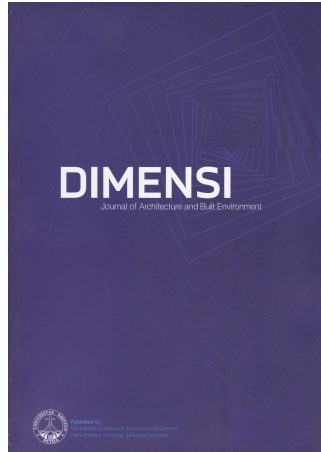
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Articles

BIM's Role in Indonesia's Green Buildings: Benefits, Challenges, and Stakeholder Preferences

Irene Roselynda Prabarani, Dewi Larasati, Hanson Endra Kusuma

1-13



PDF



Abstract View: 1 , PDF Download: 13

Reduce CO2 Emissions Using Double Skin Façade in Smart & Green Learning Center UGM Promoting Sustainable Building

Murwantoro Panghargiyo, Arif Kusumawanto

14-26



PDF

A Review: Exploring AI's Role in Architecture: Redefining New Design Interactions

Ferdy Sabono

27-43

 PDF

Factors Influencing Earthquake Resistance in Vernacular Architecture

A Systematic Literature Review of Architecture Indigenous Knowledge

Riza Aulia Putra, Dewi Larasati, Aswin Indraprastha, Hanson E Kusuma

44-56

 PDF

Post-pandemic Evaluation on Housing and Its Influence on Future Healthy Housing Preferences

Bunga Sakina

57-70

 PDF

Criteria in Utilizing Engineered Wood in Residential Construction

A Community Preference Analysis

Eryonata Melino, Dewi Larasati, Hanson E Kusuma

71-82

 PDF

Architecture as Programmatic Archive: Sustainable Conservation on Tunjungan Street History

Bramasta Putra Redyantanu, Fulbert Otto

83-94

 PDF

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Peer Reviewers

Author Guidelines

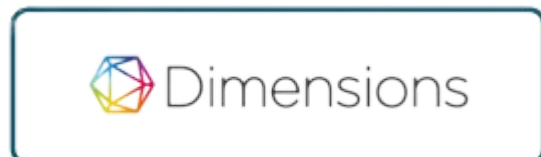
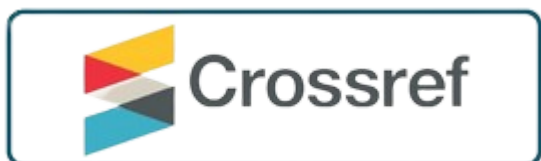
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Reduce CO2 Emissions Using Double Skin Façade in Smart & Green Learning Center UGM Promoting Sustainable Building
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A Review: Exploring AI's Role in Architecture: Redefining New Design Interactions
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Post-pandemic Evaluation on Housing and Its Influence on Future Healthy Housing Preferences
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[Factors Influencing Earthquake Resistance in Vernacular Architecture: A Systematic Literature Review of Architecture Indigenous Knowledge](#)

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[Dimensi: Journal of Architecture and Built Environment Vol. 52 No. 1 \(2025\): JULY 2025 44-56](#)

2025

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[Youth Appreciation of The Existence of Historical Buildings \(Vredeburg Fort\)](#)

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[Dimensi: Journal of Architecture and Built Environment Vol. 51 No. 1 \(2024\): JULY 2024 1-7](#)

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[Passive Design Strategy in Vernacular House of Samin, Indonesia](#)

Institute of Research and Community Outreach, Petra Christian University, Indonesia

[Dimensi: Journal of Architecture and Built Environment Vol. 51 No. 1 \(2024\): JULY 2024 17-27](#)

2024

[DOI: 10.9744/dimensi.51.1.17-27](#)

[Accred : Sinta 2](#)

[Building Mass Optimization to Reduce Solar Radiation in High Rise Building by Using Parametric Approach](#)

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[Dimensi: Journal of Architecture and Built Environment Vol. 51 No. 1 \(2024\): JULY 2024 28-38](#)

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Architecture as Programmatic Archive: Sustainable Conservation on Tunjungan Street History

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Abstract

This study presents a perspective where architecture can also designed as a model of archival representation in a historical urban space. It uses qualitative research-by-design and reflective architectural design methods, to consider Tunjungan Street's heritage as an exhibition space for contextual case for sustainable urban conservation through architectural thinking. The study identifies three principles: Movement as Program captures spatial movement to support walkability and more efficient use of resources; Heritage as Identity is about cultural character; and Urban Context as Sequence relates to social and ecological sustainability. Together, the principles structure design strategies that enable a reinterpretation of historical meaning—formally, in a material way—which represented progress for urban heritage interpretation through the lens of architectural programming. The study associated urban and sustainable growth to heritage design thinking through adaptive reuse, resilient heritage and socially engaged public places, making the case for the transformation of heritage design thinking as a model for the future. The study suggested a design-based model that positioned architectural programming as a strategic action for sustainable urban archiving, utilizing appropriation of exhibition strategies, and spatial sequencing as interpretations of the heritage of Tunjungan Street.

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INTRODUCTION

This article studies architecture as an archival medium of representation as a way of documenting historical urban spaces as artifacts that exist and objects of constructive process, and to treat sustainability as a fundamental to this discussion. Historical urban space informs the architectural program and has an active relationship across time and viewpoint in terms of historical identity. However, the history of urban heritage is important to a design strategy. In this case, heritage spaces expand beyond an artifact in preservation, but as an evolving narrative and strategic assets for urban bodies due to their historicity in forming urban space. Jalan Tunjungan, a corridor with local historical context in Surabaya is a representative example where architectural preservation converges with urban evolution (Benlin & Sigit, 2013). It is uniquely defined as a cultural and retail offering that is representative of changing modernity. Consequently, the transformation of Jalan Tunjungan tells a complimentary narrative of change that reflects how urban cultures develop identity and modes of representation (Patriaajaya & Kusliansjah, 2019). The challenge for cities is to maneuver a careful balance between preserving the identified and welcoming the inevitable adaptation or modification of modernity.

Architecture, in historical study, needs to go beyond conventional preservation methods of displaying history as an artifact to distill the work as an active archival of representation of historical spaces and how they are changing to become transformed in lived experiences. Exhibition design can provide a meaningful intersection and place urban heritage into an expanded narrative framework, as consequential representations of history must be experienced if they are to be actively part of a dialogue (Damayanti & Redyantanu, 2022). This reasoning not only fortifies identity, but solidifies heritage as a design strategy practice of change as adaptable urban culture can be situated as historically significant that has an intent on sustainability.

The role of architecture, in relation to urban heritage archiving, lies in its capacity to transcend existing stories through spatial storytelling and adaptive reuse, allowing for creative retellings that are amenable to contemporary needs in space (Sosa et al., 2022). Urban attractors, such as Jalan Tunjungan, show how sequential histories can reside in a corridor of cultural exchange and evolve into progressive, responsible urban sequences. As preservation engages both historical story and current urban processes, preservation will help create living histories (Sidik et al., 2024; Sutikno et al., 2024). Adaptive reuse embeds sustainable practices while embedding the integrity of the past and promoting inclusivity to the rest of the urban form (Walsh & Shotton, 2024). The dual engagement with the past allows for continuity, focusing on the continuity of experience where architectural conservation is beyond the materiality of preservation, and more about programming the experience (Li et al., 2021). Sustainability, ultimately, should be oriented towards socio-cultural resilience rather than its environmental counterpart as a mode of preserving recorded history, as a part of shared experience, within the live urban environment (Madanayake & Manewa, 2014).

The central issue of this study is the operationalization of programming architecture as a sustainable archive for urban heritage. Current practice is primarily focused on the preservation or the modernization of buildings, but does not coherently include the historical narratives encompassed by architectural programming. Creating and executing a systematic framework that examines the link between theory of conservation, spatial programming and experiential urbanism will allow heritage to be represented as a dynamic, evolving artifact that is adaptable. Reprogramming heritage sites becomes complex because sustainability and active use will take precedence over collective memory and the role of informal actors, tension developed around these framed concepts helps us analyze the research; and support the potential and limitations of reinterpreting heritage via exhibition-based design as a strategic design response.

LITERATURE REVIEW

Adaptive Reuse as Thematic Programmatic Strategy

Adaptive reuse offers the opportunity for historic buildings to obtain new identities, without losing their cultural, spatial or contextual significances. As Walsh and Shotton (2024) argued, sensitive design strategies look at the needs of contemporary programming, while mindful of historical narratives. Place-making engages areas that are informed by continuity, whilst also adapting to urbanized context (Awaliyah, 2024). Adaptive programming enlivens heritage through a variety of economic, social and cultural modalities; whereby heritage is no longer viewed as an object alone but rather as part of an ongoing evolutionary field (Sosa et al., 2022). Reuse ecosystems of strategy, offer approaches to conserving and protecting the values of heritage, while finding relevance among the urban planning continuum of modern pressures, and where history is not commodified (Lanz & Pendlebury, 2022). Adaptive reuse is more than a physical intervention. Rather, it is a moment of programmatic regeneration- the potential for redefined purpose -which usher in evolving urban potential for a site (Plevoets & Van Cleempoel, 2019).

Adaptive reuse involves a negotiation of place-making and architectural programming where historical experience creates user interactions and cultural identification (Tuan, 1977). Using design heritage tourism makes evident the architecture's influence on timely and un-rookie directional tendencies (Kusliansjah & Patriajaya, 2022). There must be a reasonable framework in order to ensure historic value is not lost through necessary applied changes to the design (Li et al., 2021). Each site's diverse histories compound challenges for adaption that require research inclusive design for programming to incorporate community and current activities (Fouseki, 2022). Kwanda's additive method of preservation, restoration, rehabilitation, reconstruction, adaptation and revitalization existed within a typological context of reuse methodologies' usage (Kwanda, 2004). In conclusion, architecture acts as a generative medium for urban conservatory, creating new ways to rework a spatial sequence, and continuing both material and experiential heritage (Vidler, 2003).

Adaptive reuse is inherently transformative, but also has the potential to disassociate programming from collective cultural identity. Similarly when designer privilege form and function, it risk dissolving collective memory, ultimately rendering our historic places to ambient artifacts. The novel nature of the argument in this study, however, lies in providing a shift in observable adaptive programming from a disembodied format, to one that can express and allows cultural, and therefore heritage both to exist materially and to be engaged experientially. By reading the architecture as a living archive, this research sets up a design model of heritage conservation, furthering the idea of cultural continuity and developing sustainable practices for urban transformation.

Sustainable Historical Representation Through Design

The representation of historical places through architectural design cannot pretend to only preserve; as a critical player in architecture, it needs to include a level of adaptive space for sustainability (Redyantanu, 2023). A

sustainable approach to representation of the past does not only take care of the cultural means, but also retains future outcomes and allows: the space to function and change whilst keeping its historical essence. The emergence of sustainable principles embodies the ideal equilibrium between conservation and contemporary influences, making sure that the histories of existing 'objects' are wrapped up within the strategy plan of urban development as efficacious resources and are not regarded as static monuments (Sassi, 2006). The effects of sustainability go beyond the environmental aspects, which incorporate socio-cultural and economic factors highlighting the relevancy of historical places for contemporary urban environments (Madanayake & Manewa, 2014). Exhibition museums, for example, provide an adaptive programmatic model where heritage sites are reinterpreted based on their architecture through interactions, while retaining their architectural spatial identity (Djebbour & Biara, 2019). In this sense, the way the historical representation can work in future representations is not static but allows the environment to remain dynamic: architectural representation works as a preservation and as a way to engage other urban narratives.

In sustainable historical representation, value-based design emphasizes integrity and responsiveness within processes of heritage spatial reinterpretation (Augustiniok et al., 2025). This includes the use of interiority as a way to respond spatially; that is to adapt the historical environment for contemporary use while sustaining its being (Atmodiwirjo & Yatmo, 2022). While this does support grafting interiority, where contemporary needs and spatial adaptations are absorbed into the existing architectural heritage and not as an imposition, that works against whatever architectural significance existed prior (Abudayyeh, 2021). It is important to view adaptive reuse as a layered approach that influences the way future generations hold a narrative about the past, by conserving the original materials of the historic fabric and enabling future functional aspects (Staehr et al., 2025). The sequences suggested for change and adaptation could include modular interventions, interactive installations, and contextually programmed spatial flows—all of which aim to engage users in meaningful ways, recognizing that historical architecture has generated a cultural legacy in a more dynamic, living form. Spaces must serve as self-aware archives of history but at the same time serve the needs of modern urban life. This sort of space serves as a means of combatting historical amnesia through the spatial modularity of lived experience within the everyday experience of space.

This study identifies a critical gap in the design approach to historically significant urban sites, where technical preservation often overlooks heritage as part of a broader urban identity. To move beyond material conservation, design must be understood as a system and framework that places historical narratives at the center of experiential methodology. This requires an interdisciplinary lens—bridging architectural theory, urban place-making, and spatially iterative and responsive practices. The study contributes to a growing discourse that positions architecture as a programmatic archive, where adaptive reuse, spatial sequencing, and exhibition design converge to articulate sustainable heritage. Departing from conventional conservation method, it frames spatial programming as both a narrative tool and an operational design strategy, offering context-specific prototypes for reengaging heritage corridors—exemplified in the case of Jalan Tunjungan.

METHODS

The distinguishing characteristic of this study is the use of qualitative research based on a methodology of interpretive and contextual assessment to study architecture programming in 'heritage' spaces (Groat & Wang, 2013). Research by design, as the ultimate form of qualitative research, reflects a practice where successive spatial enquiry and theory or ideology inform each other as they are developed through the design process (Till, 2009; Verbeke, 2013). Design can be viewed as an end-product, but it can also be seen as a critical, reflective and generative form of analysis, which allows for more meaningful architecture that respects historical narratives while testing contemporary urban interventions.

This study advocates for a research-by-design approach that fuses historical representation with experiential enquiry and programming objectives in sensitive urban contexts. The potential for adapting to site conditions, site complexities and communities involved, proves possible because of the study's reflexivity principles. When applied to Tunjungan as a layered site with evolving past/present/future urban processes, the author's design proposal acts as a case study to measure activity and participatory design opportunities for adaptive programming, conservation, and spacial sequencing in an exhibition environment. Based on reflective practice (Schön, 1983), this approach supports the role of context-responsive, social relevant, and critically framed design practices.

To further situate the inquiry this research is applying heritage conservation by design framework to analyse urban heritage as spatial sequences that embed historical continuity within contemporary stories (Li et al., 2021). This thesis regards architecture, as an artefact of archival representation that actively engages users through movement, identity, and programmed urban experience (Cherry, 1998). However, this frame is limiting. The potential dynamics of collaborating and adapting heritage may be abutted by actuating constraints from physical site circumstances and/or social or cultural misalignments. The programmability of programmatic, generates opportunities for engaging narration, but programmability risks becoming a representational imaginary or

exclusionary when separated from meaningful and sustained engagement with communities. This awareness shapes the analytical lens, and the assessment recognizes that adaptive governance, and participatory validation are essential to acknowledge. The goal of adaptation should work to support the engagement and monumentality of historic spaces and to not exclusively peripheralize lived urbanism. There is complexity in reprogramming heritage spaces and within sustainable placemaking; memory and community may be marginalized in efforts to reach sustainability and activate space. All these points shape the analytical lens of this thesis - the considerations of potential, constraints, and uncertainty.

RESULTS AND DISCUSSION

Historical Tunjungan as Context

The significance of Jalan Tunjungan, as one of the first urban corridors in Surabaya, is rooted through its layering of colonial identity, economic development, and changing urban disposition, makes it greatly meaningful historically. Originally conceived to connect the old town to a rapidly expanding area for trading and administration during Dutch colonialism (Krisetya & Navastara, 2019). Jalan Tunjungan became a commercial site holding iconic buildings such as Gedung Siola (now Tunjungan Plaza) and Hotel Majapahit, which played a role in Indonesia's independence (Kusliansjah & Patriajaya, 2022). The commercial corridor has retained architectural and material traces of its colonial past, contributing historical continuity amid continual change to Surabaya. Today, Tunjungan operates as a multifaceted urban attractor, combining shopping, tourism, and a representation of history (Sidik et al., 2024; Sutikno et al., 2024). Figure 1 describes its built evolution where it was born with a colonial facade, it received overlay and modernist commercial adaptation first blocking the colonial features followed by neglect as the facade deteriorated, and subsequently, restoration when the contemporary renovations restored the colonial facade. Restoration re-exposes the original colonial facade returning a critical/great fragment of the history a city.



Fig. 1. Tunjungan Historical Timeline
(Source: Edited from Google Street by Author)

Tunjungan is important in shaping Surabaya's character as an urban corridor because it provides more than just a commercial street; it also embodies a spatial account of how the city has evolved over time (Damayanti & Redyantanu, 2022). The reliance on built forms; from preserved heritage sites to contemporary intervention sites; establishes its urban message (Redyantanu, 2020). Moreover, Tunjungan has transitioned from colonial-era space and planning practices to modernization in the post-independence era, resulting in a transition from, and negotiation of, space in architectural reinvention and conservation. The process of transformation represents broader discussions on lost urban identities; where the act of conserving heritage must contend with contemporary demands on urban space (Patriajaya & Kusliansjah, 2019). As Surabaya undergoes urbanization at blistering rates, the discourse and greater understanding of Tunjungan's historical context within a more sustainable aspect of adaptive reuse and conservation becomes paramount. Programmatic solutions, such as mixed-use and experiential installations within

the urban project, can continue to find space for historical integrity, while establishing new opportunities for functional development.

The transformation of Tunjungan captures a fundamental tension in urban conservation—a movement away from pedestrian-based commerce to recreation and tourism (Benlin & Sigit, 2013). This change embodies a larger societal trend where cultural narratives are displaced by commercial imperatives. The necessity for adaptation cannot be overstated. The challenge will be to offset modern input against the authenticity of the original narratives. Architectural programming and contextual reinterpretation are necessary responses to site-identify loss; ultimately, the Tunjungan must experience a shift to such that it re-emerges as a historic archival corridor. Integrating all dimensions of the material and spatial and visual transformation of heritage is essential to managing the heritage, so that Tunjungan can continue to serve as a historical anchor point within Surabaya's sprawl. To illustrate this, Figure 2 provides a selected design site that was selected with its existing front façade intact and flexible program-able space inside, the figure also illustrates part of the surrounding context, which will provide architectural legacy and heritage frontage to support an active program-spatial intervention.



Fig. 2. Tunjungan site characteristic
(Source: Edited from Google Street by Author)

Design, Program, Process

The design considers site in terms of axes, with a formal division creating structure, context, and organization. In deciding on the primary and secondary axes, the design identifies a clear level of spatial hierarchy and encourages the idea of positioning elements or activities within the existing context of Jalan Tunjungan. The building foot print is then split in half to create a central void - a distinct open space which provides a physical separation to the various programmatic functions, while also serving as the active heart of the movement circulation. This void responds specifically to the primary movement, spatially interacting with surrounding spaces in an open and flexible design response. A sequence of ramps that may have a specific defined route are carefully located to be inserted into the void as a spatial connector by axis. They also act until the design programme appears fluid and accessible. The ramp will be effective as a transitional element and provide layered experiences of vertical movement while connecting the historical stories that are embedded in the surrounding context. Figure 3 shows the creative process of integrative thought regarding the old and new building. The design process is a series of four transformations in the design. First, the design establish a spatial axis that lends to continuity of movement. Second, it separated the architectural mass to create the zone of circulation. Third, the architecture introduce a ramp to extend the pedestrian experience into the building's interior. Finally, circulation concludes with a view toward the new energized face of modern Tunjungan reinforcing its own spatial narrative of urban transition.

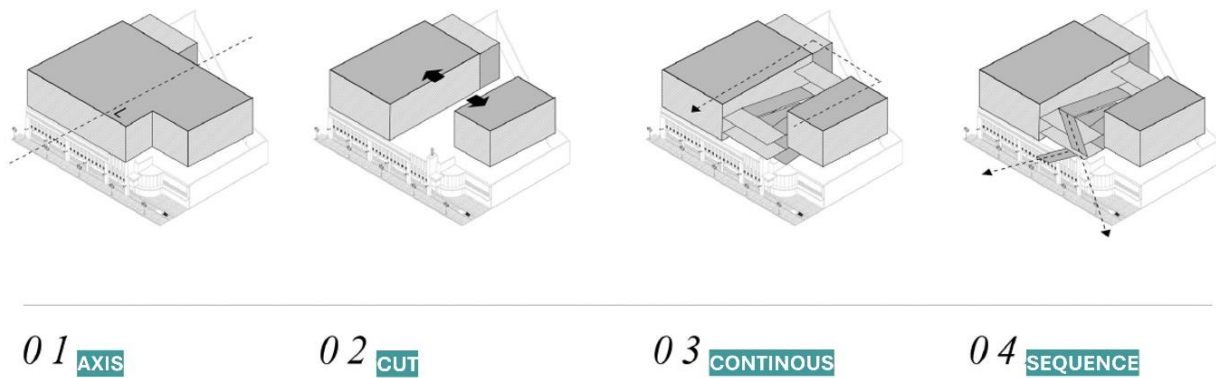


Fig. 3. Building design process
(Source: Author)

The programming strategy responds to the shift within Tunjungan's urban identity by accounting for social, cultural occurrences that would be considered in its design process. A heritage gallery as a record of the area's physical past, reflects Surabaya's urban memory it assembled through both curated artifacts and participatory exhibitions, thus presenting architecture as a viable mechanism for heritage protection. The addition of a café and a co-working space further respond to prevailing social trends with youth populations, while re-using the site as an active public space. The exhibition void is re-configurable to redefine distributed flow, whilst simultaneously allowing for a generous public stage for cultural activity. Similar to an adaptive reuse approach, the integration of this range of programming enables the site to refer back to historic narratives while also remaining relevant to urban life. Figure 4 demonstrates this contextualisation; including components such as the heritage gallery, co-working and exhibition spaces each existing in dynamic relation to Surabaya's urban society.

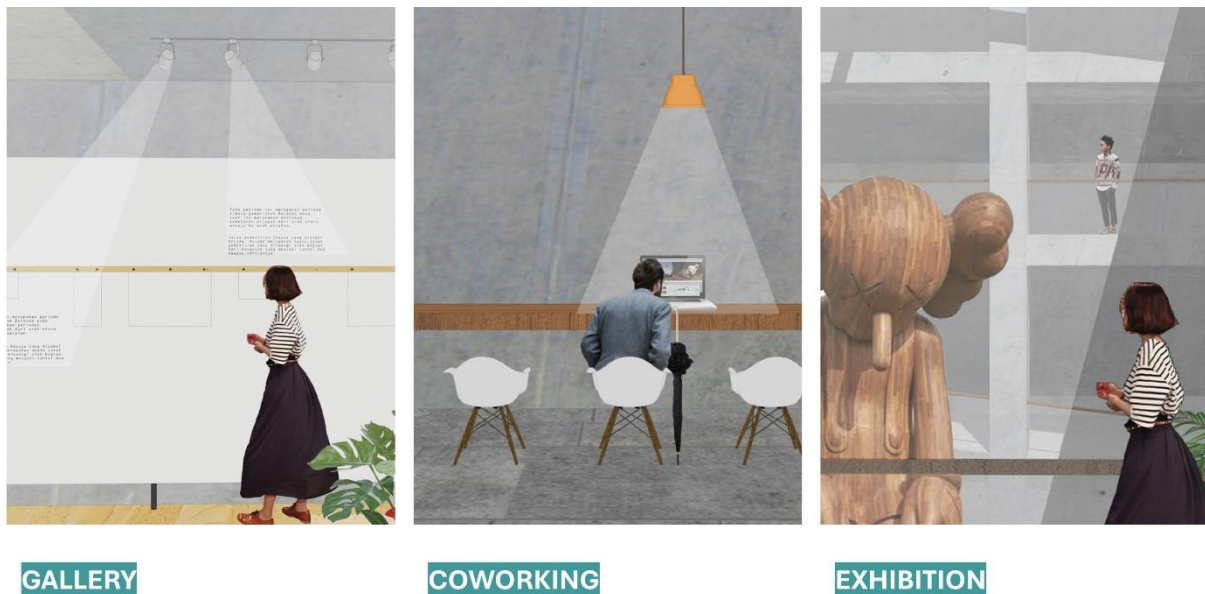


Fig. 4. Thematic contextual program
(Source: Author)

The architectural language favors sequential spatial flow and uses the ramp structure to layer programmatic transitions, as well as direct experiential movement. This vertical circulation provides a fluid dynamic sense of motion for the user to move between spaces comfortably, while engaged in historical narratives as well as current urban life. The program distribution around the Resurgence void is linked to the ongoing cultural identity of Tunjungan and reinforces the urban sequencing and public engagement. The void, intended to be an attractor for active space, is described by a geometrically continuous circular ramp - which allows coherence formally and adaptability functionally. This layered movement choreography is founded structurally on a relatively low-cost and responsive structural framework and utility system, will result in an architecture that balances spatial clarity and operational flexibility, as depicted in Figure 5.

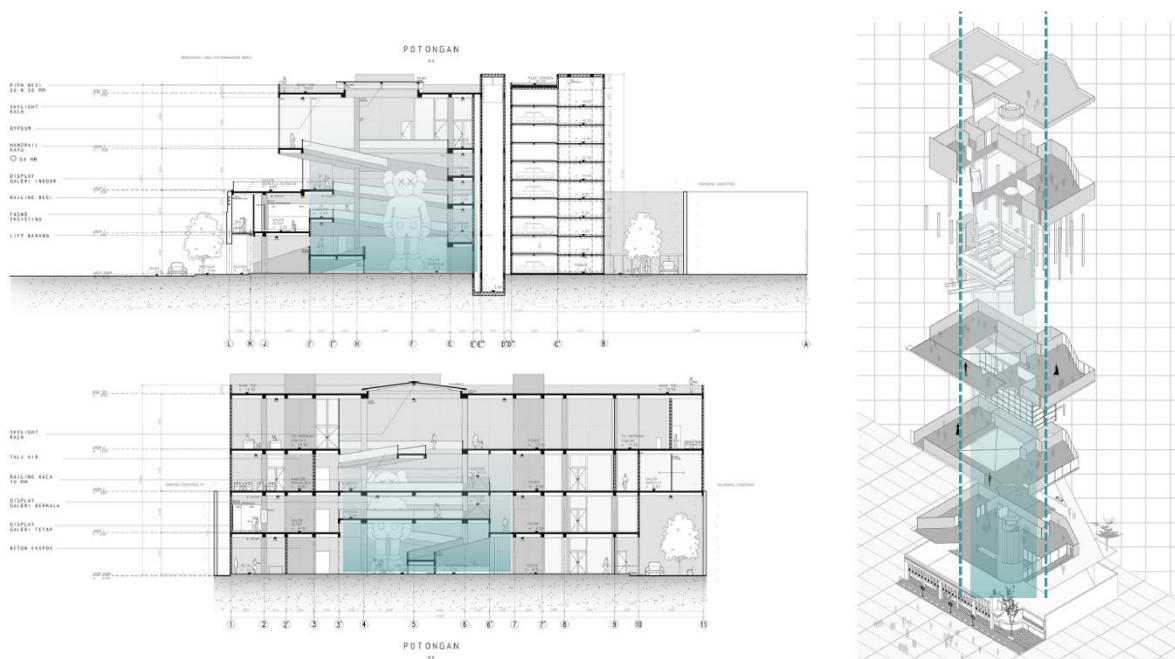


Fig. 5. Integrating idea into design
(Source: Author)

One essential element of the design process is to ensure that the façade and massing remain cohesive with the historical context of the setting. The intervention employs a rudimentary and contrasting massing strategy, intentionally retaining a visual emphasis on the existing heritage buildings. This plan ensures that the architectural intervention foregrounds the existing historic fabric instead of dominating it, and continues to respect the authenticity and presence of Tunjungan's urban heritage. The façade treatment adopts a restrained technique, and enhances the contrast between contemporary additions and the conserved historical fabric. The building's materials ensure that they are smooth and monolithic notwithstanding the richness of the neutral massing. This ensures a level of coherence, allowing the intervention to act as main amural background to the heritage architecture.

Architecture operates as a volatile archive in this project that accommodates responsive programming to reinterpret Tunjungan's heritage as a living space rather than as a static, preserved historical object. The design leveraged new programmatic strategies, which transformed conservational history into spatially narrated stories that connect current urban life with preserved pasts. The challenges encountered in repurposing the historic urban fabric through adaptive interventions have established a critical dialogue about the representation of heritage, positioning architecture itself as an act of preserving and redefining urban memory and collective identity in the aftermath of the evolutionary impulse of contemporary development.

Movement as Program

The pedestrian experience along Jalan Tunjungan represents the primary design inspiration that influenced the spatial programming and circulation of the architectural intervention. The concept of *mlaku-mlaku* ning Tunjungan remains a normal cultural activity, contributing to the corridor's identity as a space for public activity and the intrinsic understanding and appropriation of that space leading to commercial, leisure, and social inquiry. It is no mere coincidence that this pedestrian experience along Tunjungan is the genesis of the primary program, whereby movement is not just a functional aspect, but rather an ordered spatial sequence informing the architectural form. By considering pedestrian accessibility as part of the design, the project is attempting to honour the cultural precedent of Tunjungan in continuing the urban flow of the street into the internal circulation, so that movement is not interrupted and continues as a whole. The blurring of an inside to outside built environment supports the notion of a continuum within the urban condition and sustains a similar tongue-in-cheek narrative of urban motions, similar to the historical engagements the city has had.

The void and ramp are both essential components or spaces that indicate vertical pedestrian circulation in this design process. The void is not treated as empty space, but interstitial space—providing a connection of space through light and visibility of movement through it, and anchoring surrounding projects.... The ramp in this design is situated in the void. It acts as a central axis that organizes sequential movement through the ramp and provides a seamless transition from urban to architectural space. This models the celebration of verticality as a main layer of experience, rather than being equated to other models of circulation. The ramp, reflecting Tunjungan's transitional urban

narrative, is not just a ramp but rather an extension of the pedestrian pathway in linking all programs in an architectural sequence and allowing for continuity and interaction across the site, shown in Figure 6.

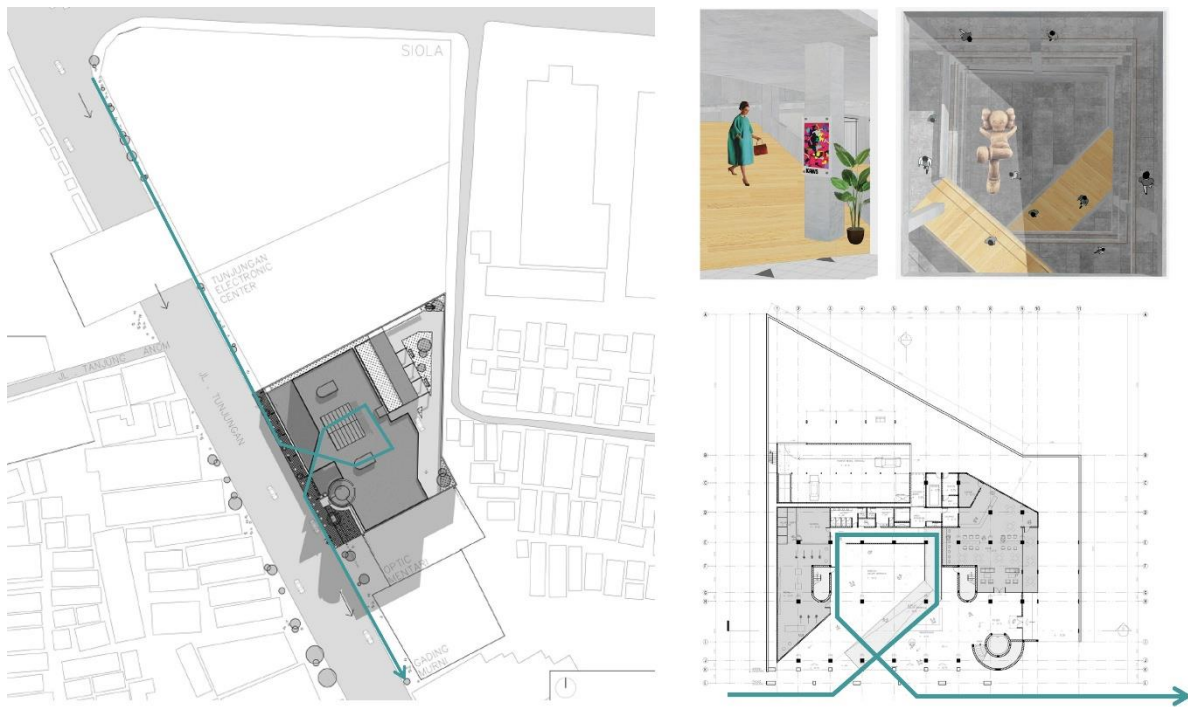


Fig. 6. Movement as program
(Source: Author)

To support the relationship of movement and space, the alignment of the axis momentarily shifts from the pedestrian flow of Tunjungan, assuring the transition to the built environment occurs naturally. The architectural condition produces a sensation in which the urban fabric does not simply terminate at the doorway of the building but branches inward toward the building, thereby increasing the pedestrian experience. The resulting spatial configuration exudes the essence of organic movement branching within the corridor, ensuring circulation was intuitive and contextual, rather than forced. This design approach gives a voice to heritage and contemporary movement, as it utilizes historical urban patterns of movement as a programmatic device to illustrate contemporary carrying on; thus the built environment is an addition to Surabaya's cultural urban memory, rather than a replacement.

Heritage as Identity

The built heritage along Jalan Tunjungan is situated within Dutch colonial architecture emphasizing white geometric forms, rhythm and linearity, and continuous facades, gives spatial identity and surrounds the cultural and commercial development of Surabaya. The hallmark of simple but robust buildings—with arcade-paved public access lines and continuous façades—creates a layered urban fabric where past materiality meets present activity. Instead of thinking of heritage as static or of a particular time, it can be expressed as evolving by including it in intervening designs so it can present materially and facilitate new programmatic life. In this way, heritage can turn into a platform for new contemporary development for further development and value without removing what is historical.

Maintaining heritage identity is a delicate balancing act between preservation and adaptation, in which the additions enhance the architectural experience rather than detracting from it. In Tunjungan, contemporary design elements are cloaks of modernity that background colonial buildings and allow their original forms to be visually independent from the contemporary program (galleries, cafes, coworking). The layering of historic and contemporary architecture contributes to the status of the district as an urban text, in which memory and contemporary actions coexist. Figure 7 illustrates this: the colonial façade is retained and repeats rhythmically against a neutral concrete mass, while the extrusions of glass exposes the uninterrupted flow of the internal ramp. This simultaneous exposure of dual narratives makes for a dynamic architectural attractor that brings a sense of continuity to both the old and new spaces.

Along the corridor of Tunjungan, continuity of identity is critical to preserve urban fabric culture and its spatial language in a time-based manner. The structured arcades, the zero-setback, and the rhythmic facades at the street

level feed to a common street experience and reinforce the historical presence as an active urban feature. Heritage spaces can be re-contextualized through architectural programming; these spaces can be repurposed in innovative ways without losing their prevalent heritage identity, which allows them to be the space of transition within an ever-changing urban fabric. There is an important balance here as the heritage structure needs to be preserved with relevance to contemporaneity while also being programmed to respond to varying cultural dynamics. In the end, heritage is an adaptive identity and one that serves a new identity in response to contextual needs, but with the main building architectural and cultural significance retained in Surabaya's urban continuum.

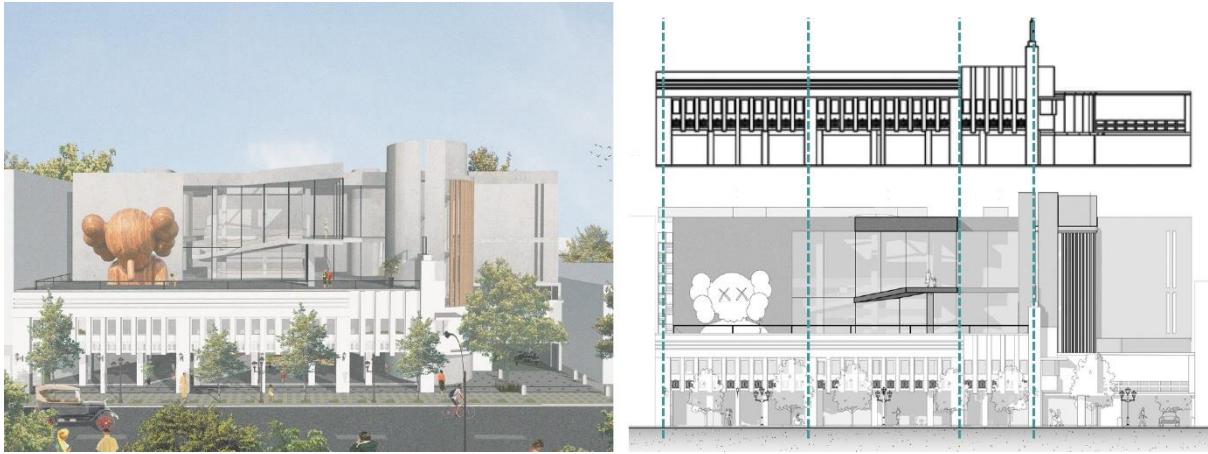


Fig. 7. Heritage as identity
(Source: Author)

Urban as Sequence

Tunjungan Street is an important architectural and cultural marker in Surabaya's shift from colonial urbanism to modern urbanism, with a tangent continuity of time leading one back through history to Tunjungan Plaza - a form that is the visual void of urban complexity and meaning as part of the contemporary urban experience. Through vertical circulation the design employs spatial layering to move users through a reimagined urban landscape of transition. This movement becomes a narrative of transitions, between historical memory and modernity - forming a layering of Tunjungan as archival record, but also in the fabric of an ongoing living reality of the urban landscape.

Passage through the architectural sequence reinforces the idea of architecture as a form of urban narrative, where the past and present come together in a unified spatial experience. Users' first experience is through a historic gallery that narrates the history of Tunjungan, from a colonial boulevard to a commercial district, and they then transition to contemporary Tunjungan, a living relic of modernization and adaptive reuse. Rather than being presented as fragments, the spatial experience acts as the city's narrative as an unfolding continuum. As enacted through spatial forms of preservation, transformation, and future urbanism, the design addresses history as active rather than passive display. Figure 8 represents the urban space as a multimodal immersive experience in architectural design.

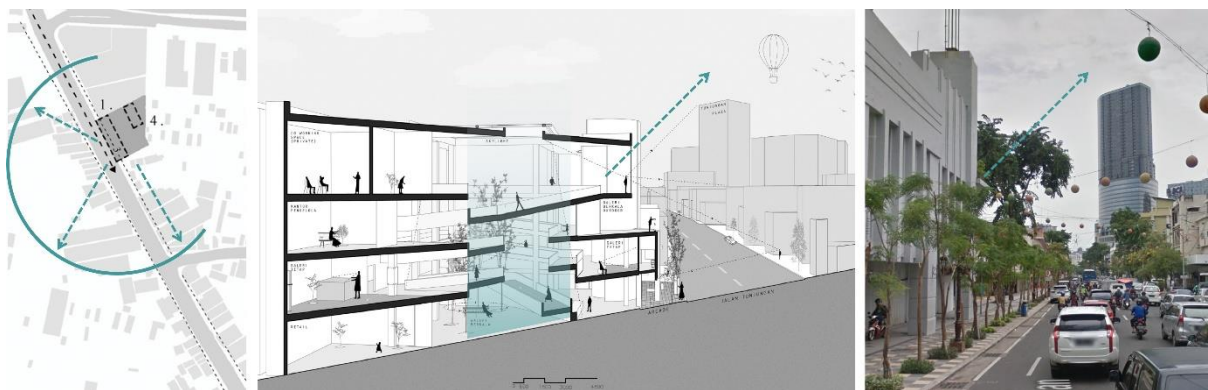


Fig. 8. Urban as spatial sequence
(Source: Author)

Aside from historical representation, this architectural sequence serves as another method to incorporate the urban experience into the built form. It effectively copies and confines the edge or thresholds of the street door, dissolving any distinctions between life on the street and within an architectural space. The movement-based design

perspective invites Tunjungan's ambient pedestrian pace to occupy the heart of the intervention, including, again, that urban engagement will not stop at the façade, but reverberate into the articulation of space. This circulation ramp, being guided by the existing pedestrian paths, creates a branching circulation system through which the users move from the public corridor to the interior experience. This reinforces the idea of architecture as an urban instrument while allowing the spatial design to provide a responsive apparatus forwarding historical memory, contemporary agency, and future urban trajectories. Ultimately, this urban sequence supports the principle that cities are not static; they are dynamic stories of adaptive reuse, shaped through what architecture is able to identify, adapt, and project urban identity through space.

CONCLUSION

Architecture can be thought of as a dynamic archival medium that inscribes engaging incremental readings of histories in urban spaces through spatial encounters. Rather than relegating built heritage to a museum artifact, this paradigm leverages the potentiality of built legacy through architectural programming and exhibition design for lasting experiences and culturally-specific embodied responses. Architectural exhibits activate culturally readable histories; they make history interactively visible, in flux, through changing urban landscapes, and a living conversation—from history, recording past, to historical records, social memory, and conservation, from preservation to engagement.

This study presents a treble design approach - Movement as Program, Heritage as Identity and Urban as Sequence - to contextualize architecture as a process of reconstituting heritage in dynamically urban contexts. Each element works within a continuous spatial apparatus through which adaptive reuse, social authenticity and changing urban narratives (unfold) with human mobilities, collective memories and sequences of space. While this approach offers a transferable model for preserving heritage in fast-changing cities, mitigation strategies to ensure site limitations, inclusivity and deeper forms of culture response, are needed. When these contingencies arise, adaptive, socially responsive governance can provide contextually situated iterations and participatory possibilities.

Future research presents robust possibilities for evolving digital heritage representation into new paradigms, complementing layered human experience using emerging systems like augmented reality and data-driven spatial and geospatial overlays for public access and engagement through narrativity and storytelling. Collaborative, interdisciplinary initiatives that connect architectural programming with urban policy, and digital preservation processes could adopt responsive approaches to adjusting to shifting urban realities. Operatively, these methodologies could conceptualize a discussion between architectural intentions and delivery, allowing for the realignment of heritage management practices towards integrated policy and spatial responses, as opposed to assembled existing techniques. However, adaptive reuse of structures within historic districts presents problems and compromises between the ideation of functional change and approaches concerning identity. Defining a clear action plan is pivotal; an action plan that embeds programmatic design within presents as modes of cultural memory and views architecture as an active, living material that absorbs and responds to contemporary urban tipping points.

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DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES

The authors utilized Microsoft CoPilot for in text grammar checks and translation, when preparing the manuscript. The authors reviewed and used their discretion to edit the work as necessary and are solely responsible for the work published.

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