

Spatial transformation of Magelang City Square: Local-Colonial power relations from an urban morphological perspective

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ARTICLE INFO	ABSTRACT
<i>Article history:</i> Received December 12, 2025 Received in revised form Jan. 08, 2026 Accepted April 24, 2026 Available online June 01, 2026 <i>Keywords:</i> Colonial urban space Power relations Spatial palimpsest Spatial transformation Urban morphology *Corresponding author: Iwan Priyoga Department of Urban and Regional Planning, Faculty of Engineering and Planning, Institut Teknologi Nasional Yogyakarta, Indonesia Email: iwan.priyoga@itny.ac.id ORCID: https://orcid.org/0009-0004-4732-3883	Urban spatial transformation in Indonesia is inseparable from the enduring influence of colonialism, which has significantly contributed to the reconfiguration of urban spatial structure, functional organization, and spatial meaning. The Alun-alun, as a fundamental component of Javanese urban form, has experienced substantial transformation through the continuous negotiation between indigenous value systems and colonial interventions in spatial governance. This study seeks to investigate the spatial transformation of the Magelang Alun-Alun, to analyze the dynamics of local-colonial power relations embedded within its spatial restructuring, and to interpret the evolving meanings of space through an urban morphological lens. This research is situated within a qualitative-historical framework, utilizing archival investigation, field-based observation, and semi-structured interviews as primary methods of data collection. The analytical process is structured through spatial-historical analysis, examination of power relations, and biographical interpretation of space, enabling the identification of multilayered transformations in both spatial configuration and spatial meaning. The findings reveal that the Magelang Alun-Alun has undergone a significant transition from a cosmologically oriented space, reflecting the integration of indigenous authority systems and spiritual cosmology, into a more formally structured administrative space under colonial governance. This transformation not only redefined the physical spatial organization but also reconstructed the functional role and symbolic meaning of the Alun-Alun as an instrument of power representation and territorial control. Nevertheless, certain indigenous spatial elements persisted despite colonial restructuring, resulting in a hybridized spatial configuration that reflects both continuity and change. This study demonstrates that the Magelang Alun-Alun can be interpreted as a palimpsestic urban space, in which multiple historical layers coexist and interact to produce complex spatial meanings. The contribution of this research lies in the integration of urban morphological analysis with the study of power relations and spatial meaning, thereby offering a more comprehensive and critical understanding of colonial urban spatial transformation processes.

Introduction

The formation of urban space in Indonesia cannot be separated from the dynamics of colonialism that unfolded over a long period and left behind a complex spatial imprint. In cities across Java, the *alun-alun* occupies a central position as a space that functions not only physically but also represent cosmological order, structures of power, and the social practices of society (Lombart 1996; Adrisijanti 2000). Within the framework of the *Production of Space*, space can be understood as a construct formed through the interaction between social practices, power relations, and systems of representation that develop within society (Lefebvre 1991). Thus, the *alun-alun* can be interpreted as a space that simultaneously embodies symbolic, political, and cultural dimensions. In the study of *Urban Morphology*, urban form and structure are understood as the result of historical processes reflecting the interaction between social, political, and economic factors (Oliveira 2016; Kropf 2017). This approach enables the identification of changes in spatial configuration as manifestations of power dynamics operating in the formation of urban space, including in the context of cities in Indonesia (Ashadi 2017; Yuliastuti and Agustina 2018).

The arrival of colonial power in Java brought fundamental changes to the structure and meaning of traditional urban space. Colonial intervention was not only physical, through the construction of infrastructure and administrative institutions, but also symbolic, through the redefinition of spatial functions and orientations. From the perspective of *State Simplification*, spatial organization by the colonial state tended to be directed toward creating legibility and ease of control over territory and society (Scott 1998). As a result, spaces that were previously cosmological and sacred underwent transformation into administrative spaces that were profane and instrumental.

In this context, Magelang Square Town represents a representative example of a space that experienced transformation due to the encounter between local value systems and colonial power. From its initial formation during the era of Adipati Danuningrat I to the Dutch colonial period, Magelang Square Town demonstrates changes in spatial configuration, building orientation, and social function. These

changes not only reflect the dominance of colonial power but also reveal processes of negotiation and adaptation that resulted in hybrid spatial forms. Studies on colonial cities show that power intervention not only shapes the physical structure of space but also reconstructs the system of meanings and representations attached to it (King 1976; Kusno 2000; Nas 2011; Handinoto 1992).

A number of previous studies have examined the Javanese *alun-alun* as a cosmological center and symbol of traditional power, as well as a component of urban morphological structure (Nas 2002; Kusno 2000; D. Widayati 2020). Other studies have also highlighted how colonial urban space in Indonesia was shaped through power relations and representational practices (King 1976; Kusno 2019). In addition, research on the dynamics of public space in Indonesian cities indicates the interaction between social and cultural needs and structural change (Winata and Astrina 2022). However, studies that specifically integrate urban morphological analysis with a local-colonial power relations approach in the case of Magelang Square Town remain limited. Moreover, there is still a lack of research that simultaneously combines the theoretical frameworks of *Production of Space*, *State Simplification*, and *Biographical Objects* to interpret spatial transformation as a historically, spatially, and culturally layered process (Hoskins 1998).

Overall, this study emphasizes that there exists a research gap related to the lack of integrative studies capable of explaining the transformation of the *alun-alun* as the result of interactions between power structures, morphological changes, and the dynamics of spatial meaning. Although several studies have examined transformations in colonial urban space, most have focused on physical or historical aspects separately. In this regard, the present study is directed toward filling this gap through a multidimensional approach that integrates spatial-historical analysis and theoretical interpretation.

The theoretical framework employed in this study represents an integration of three primary approaches, namely, the production of space, state simplification, and the biography of objects, which conceptually complement one another in interpreting spatial transformation and power relations. The integration of these three frameworks is visualized in figure 1.

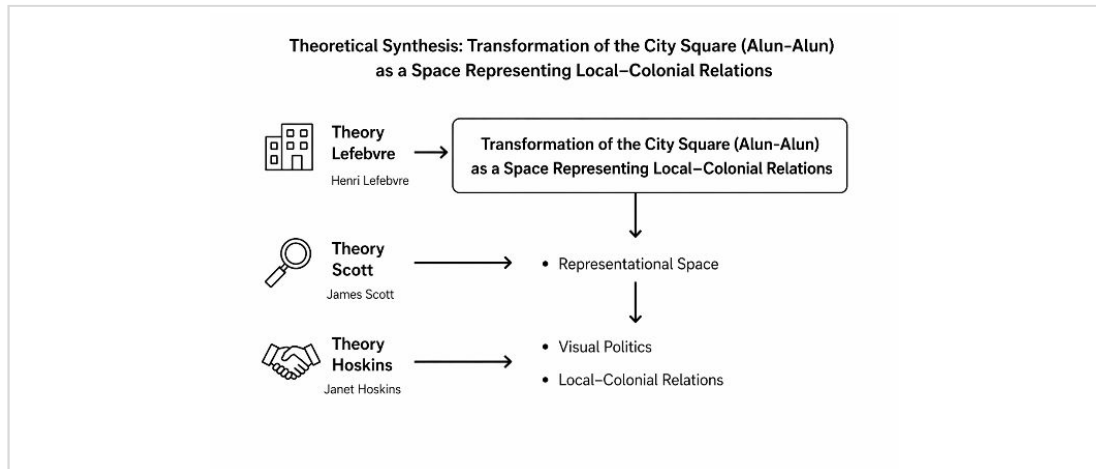


Figure 1. Theoretical framework for the analysis of the spatial transformation of Magelang Square Town

The figure above demonstrates that the spatial transformation of Magelang Square Town is analyzed through three intersecting layers of approach. First, the production of space approach positions space as the result of social construction influenced by power relations and everyday practices. Second, the state simplification approach explains how colonial intervention shaped space to become more structured, legible, and controllable as part of administrative and domination strategies. Third, the biographical objects approach views space as an entity possessing a historical trajectory and evolving layers of meaning in response to changing social and political contexts. Through the integration of these three approaches, the analysis does not merely focus on physical changes in space but also on the dynamics of power and meaning that shape the layered spatial character of Magelang Square Town.

In this context, the urban morphology approach becomes essential for identifying changes in spatial structure, orientation patterns, and the configuration of spatial elements as material representations of historically embedded power relations.

The research questions are explicitly formulated as follows:

- (1) How has the spatial transformation of Magelang Square Town evolved from its initial formation to the colonial period?
- (2) How are local-colonial power relations represented in the spatial arrangement of Magelang Square Town?
- (3) How has the meaning of the space of Magelang Square Town undergone change

and negotiation within this historical context?

In line with these research questions, the objectives of the study are:

- (1) To identify and analyze the historical spatial transformation of Magelang Square Town;
- (2) To examine local-colonial power relations through changes in spatial morphology; and
- (3) To interpret Magelang Square Town as a space with layered meanings (a spatial biography) within social and political dynamics.

The contribution (novelty) of this study lies in the integration of three theoretical frameworks, production of space, state simplification, and the biography of objects, in interpreting the transformation of colonial urban space in a comprehensive manner. This approach enables an analysis that not only emphasizes physical changes but also reveals the dynamics of power and meaning that shape space as a layered entity. Thus, this study is expected to contribute to the development of urban morphology studies, postcolonial studies, and to serve as a conceptual foundation for more contextual and locally sensitive approaches to the conservation of historic spaces.

Methods

This study is structured within a qualitative-historical framework to examine the dynamics of spatial change chronologically while interpreting spatial meaning in relation to its surrounding

social and political context. This approach is directed toward analyzing spatial transformation, power relations, and the construction of spatial meaning within the development of colonial cities. The selection of this approach is based on its capacity to reveal spatial change not merely as a physical phenomenon but also as a representation of symbolic and social values attached to Magelang Square Town as the object of study. The analytical process integrates the conceptual frameworks of *Production of Space*, *State Simplification*, and *Biographical Objects* as the basis for interpretation.

1. Unit of analysis and research scope

The unit of analysis includes the core area of Magelang Square Town along with its surrounding spatial elements that experienced transformation due to colonial intervention, including government buildings, religious facilities, road networks, and public open spaces.

The temporal scope of the study is divided into three main phases:

- (1) The initial formation phase during the era of Adipati Danuningrat I;
- (2) The Dutch colonial intervention phase; and
- (3) The postcolonial development phase up to the present condition

This periodization is intended to understand spatial transformation as a gradual and layered process within the historical dynamics of urban space.

2. Data collection techniques

Data collection was conducted using a triangulation approach to enhance the reliability of the research findings, including:

a. Archival and Historical Document Study

Historical data were obtained through the examination of colonial maps, historical aerial photographs, archival documents, and various literature addressing the history of Magelang. This information was used to trace changes in spatial configuration and identify forms of colonial intervention in the urban spatial structure.

b. Field Observation and Morphological Analysis

Field observations were conducted directly within Magelang Square Town to identify existing conditions, including building orientation, road network patterns, landscape elements, and spatial relationships. Urban morphological analysis was applied to interpret spatial structure through road patterns, building orientation, and spatial configuration, thereby enabling the

identification of both continuity and change between historical and present conditions.

c. Interviews and Narrative Analysis

Interviews were conducted purposively with informants possessing knowledge of the history and development of Magelang Square Town, such as local historians, community leaders, and government officials. This activity aimed to explore collective memory, cultural meanings, and social interpretations of spatial change. The interview data were then transcribed and analyzed thematically.

3. Data Analysis Techniques

Data analysis was conducted in a staged and integrated manner through three main approaches:

a. Spatial–Historical Analysis

This analysis was carried out comparatively by examining historical maps, visual documentation, and existing conditions. Techniques included map overlay and visual interpretation to identify changes in spatial patterns, building orientation, and road networks. This approach aims to reveal the processes of spatial formation and morphological transformation over time.

b. Power Relations Analysis

This analysis utilizes the frameworks of *Production of Space* and *State Simplification* to understand how space is shaped and controlled through power intervention. The indicators used include:

- (1) Changes in spatial and building orientation;
- (2) The placement of strategic elements (colonial offices, military facilities, churches);
- (3) The removal or displacement of local symbols;
- (4) The formation of hierarchical and controlled spatial structures.

This approach is used to identify representations of power and strategies of domination reflected in the urban spatial structure.

c. Biographical Spatial Analysis

This approach refers to the concept of *Biographical Objects*, which views space as an entity with a historical trajectory and layers of meaning. The analysis traces changes in function, symbolism, and perception of Magelang Square Town over time. Historical data, observational findings, and interview results are integrated to understand space as a

cultural archive that records social and political dynamics.

4. Data Validity and Reliability

The validity of the data is ensured through the application of source and method triangulation by comparing archival data, field observations, and interview findings. In addition, the interpretative process is conducted iteratively by relating empirical findings to the theoretical framework, thereby producing an analysis that is both consistent and academically accountable.

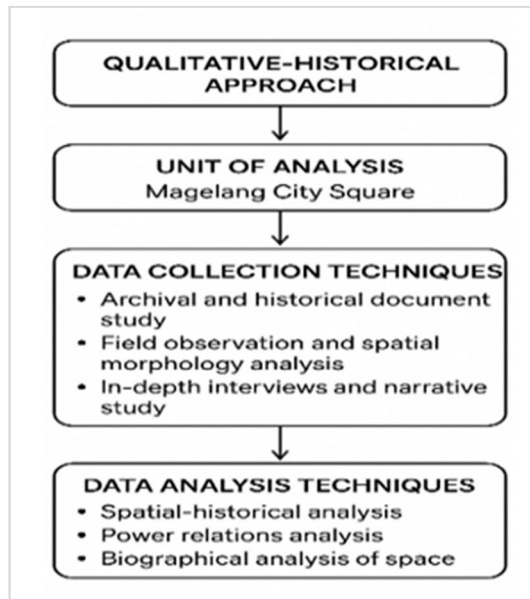


Figure 2. Flow diagram of the research method for the spatial transformation of Magelang Square Town

The diagram above illustrates that the research is conducted through structured and interconnected stages. The process begins with data collection through archival research, field observation, and in-depth interviews to obtain multiple perspectives on spatial change. Subsequently, the data are analyzed through three main approaches: spatial-historical analysis to identify morphological transformation, power relations analysis to understand dynamics of control and spatial representation, and biographical analysis to interpret historically constructed layers of meaning. These three approaches complement one another and produce a comprehensive understanding of Magelang Square Town as a space that is shaped, controlled, and interpreted through layered processes.

Results and discussion

Early transformation: The Alun-Alun as a representation of Javanese Cosmology

The initial formation of Magelang Square Town during the era of Adipati Danuningrat I (1812) reflects the application of Javanese urban spatial principles grounded in cosmology. In this context, the interrelationship between power, spirituality, and social life is manifested through a deliberately organized spatial configuration. The alun-alun functions as the central space, with the regent's residence positioned to the north and the mosque located on the western side, oriented toward the qibla.

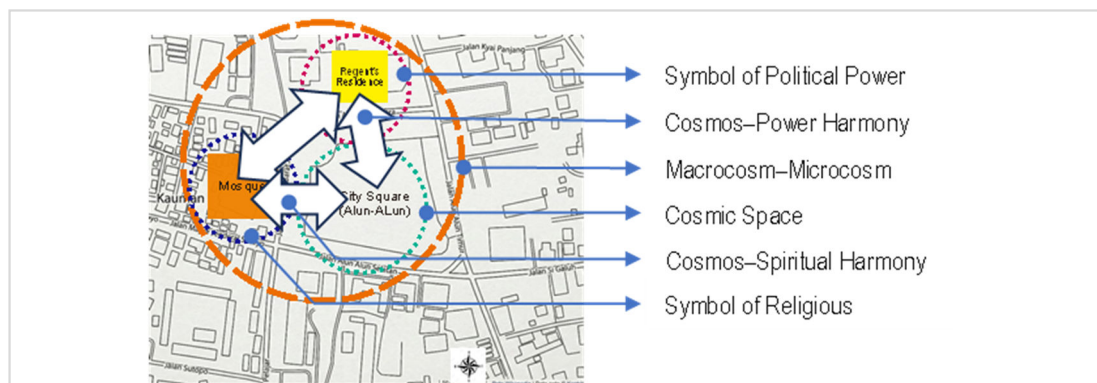


Figure 3. Initial (cosmological) configuration

Figure 3 illustrates that the initial spatial arrangement of Magelang Square Town follows a symbolic and concentric pattern characteristic of Javanese urban form. This pattern reinforces the

function of the alun-alun as a cosmological center that integrates political and spiritual dimensions within a unified spatial structure (Nas 2011; N. Widayati 2020).

The placement of these principal elements indicates that spatial orientation is determined not merely by functional needs but also by cosmological and religious value systems. In this regard, the spatial configuration reflects the principle of the relationship between macrocosm and microcosm, in which the alun-alun serves as a mediating space between worldly authority and transcendental values. From the perspective of the Production of Space, this condition can be understood as a form of representational space, namely a space imbued with symbolic meaning by both the community and local authorities. Therefore, in its initial phase, the alun-alun functions not only as an open space but also as a medium for legitimizing power rooted in an integrative local value system.

Colonial intervention and changes in spatial structure

Fundamental changes began to emerge following the return of Dutch colonial power in 1816. During this phase, spatial orientation shifted from a cosmological pattern toward a more administrative and rational approach. This shift was marked by the construction of various colonial facilities, including the president's office, a church, and military infrastructure surrounding the *alun-alun*.

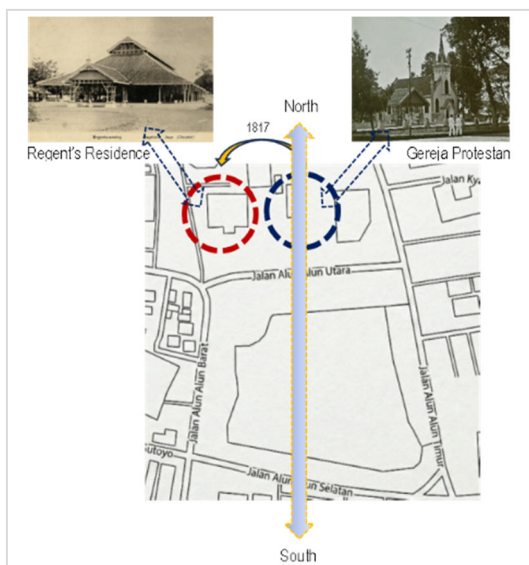


Figure 4. Colonial intervention

Figure 4 demonstrates a significant transformation in spatial orientation resulting from colonial intervention. The presence of these buildings in strategic locations indicates a shift in the center of power. This transformation not only affected the physical structure of space but also reflected the symbolic dominance of colonial authority over the local spatial system.

The relocation of the regent's residence from the northern side to the northwest, along with the construction of a church on its former site, illustrates direct intervention in local symbols of authority. This shift indicates that spatial transformation was not merely physical but also related to the transfer of legitimacy from local authority to colonial power. This pattern aligns with the characteristics of colonial cities in Southeast Asia, where space is utilized as an instrument of administrative and military control (King 1976; Kusno 2019). Within the framework of State Simplification, this reorganization can be understood as an effort to produce space that is more legible and easier to control. The relatively symmetrical arrangement of buildings and the clustering of administrative functions around the alun-alun reflect a systematic strategy of spatial control. Thus, during this period, urban space functioned both as a medium of representation and as an instrument of colonial domination.

Spatial negotiation: The encounter of local and colonial value systems

Despite the significant impact of colonial intervention, not all local elements were eliminated. As illustrated in figure 5, an interaction occurred between the Javanese cosmological system and the colonial rational-administrative system.



Figure 5. Spatial negotiation

The resulting configuration shows that although the spatial structure was dominated by colonial intervention, several local elements were retained, such as the presence of the mosque and the fundamental form of the alun-alun. This indicates that spatial transformation occurred through a process of negotiation, resulting in a hybrid spatial form.

The relationship that emerged was asymmetrical, with colonial power exercising dominant control over spatial structure, while local elements persisted as expressions of cultural continuity. The continued presence of the mosque on the western side and the relatively unchanged basic form of the alun-alun suggest a form of resistance that could not be entirely eliminated. This phenomenon demonstrates that colonial spatial transformation did not occur purely through hegemony but involved processes of

adaptation and resistance that produced complex spatial configurations (Nas 2011).

From the perspective of the Production of Space, this condition reflects the interaction between representations of space (colonial planning) and spatial practice (local community practices). Thus, Magelang Square Town can be understood as a transitional space that represents the encounter and negotiation between two distinct value systems.

Morphological transformation and the representation of power

The spatial transformation of Magelang Square Town can be more systematically summarized in table 1, which illustrates shifts in function, orientation, and spatial structure from the initial period to the colonial era.

Table 1. Spatial transformation

Theoretical synthesis: Transformation of landscapes as representations of Local-Colonial relations			
Physical Element	Practices, Customs/Culture		Dominant Objective
Pre-Colonial	Symbols of the kingdom and sacred spaces for the community	Traditional rituals and social practices that strengthen local identity	Strengthening symbolic power of the kingdom
Colonial	Colonial urban structure and spatial planning that accommodated Benteng, Menara and Administrative area	Surveillance, social control and mobility of the supervised city	Domestication and strengthening of colonial control

The table indicates that the transformation extends beyond physical aspects to include changes in function and spatial meaning. The shift from a cosmological space to a colonial administrative space reflects a transformation in power structures that has implications for the overall configuration and use of space.

As illustrated in figure 6, the orientation of colonial buildings facing directly toward the alun-alun creates a visual composition that reinforces colonial dominance. The open space, which was previously symbolic in nature, underwent functional transformation into a representational space supporting administrative and military control.

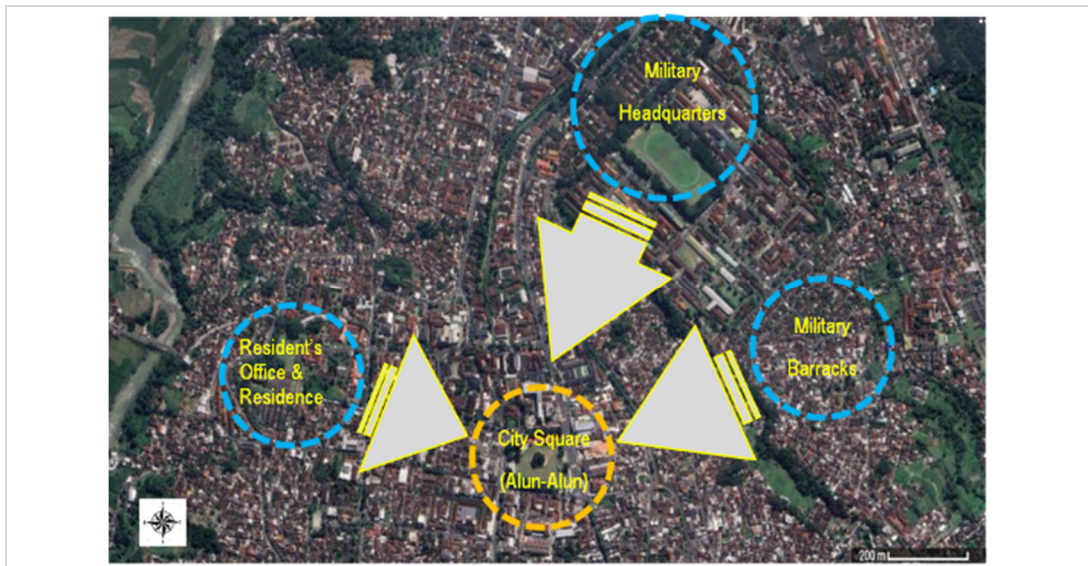


Figure 6. Morphological transformation

This transformation reveals a more formal and structured spatial arrangement resulting from colonial intervention. The regularity of the road network and the centralized orientation of buildings indicate a systematic effort to create a space that is easily monitored and controlled.

From the perspective of Urban Morphology, these changes reflect a shift in urban form due to external influences, particularly colonial power (Oliveira 2016). Meanwhile, within the framework of State Simplification, this configuration demonstrates an effort to reduce the complexity of local spatial arrangements into a more ordered and controllable structure.

Thus, morphological transformation is not only related to physical changes but also reflects shifts in the system of power governing urban space.

The Alun-Alun as a biographical space and palimpsest

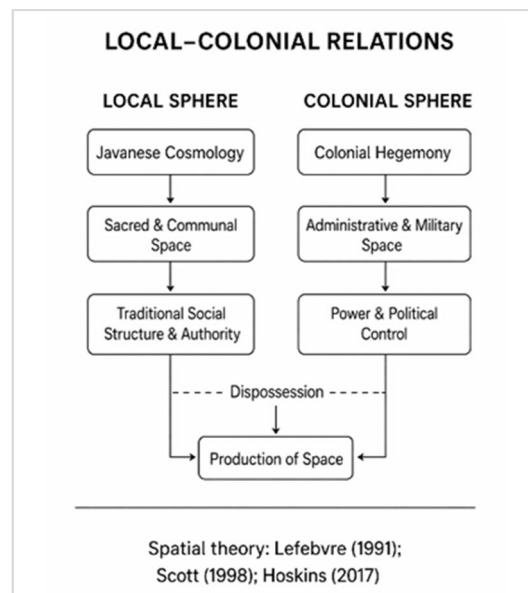


Figure 7. Palimpsest (Spatial Biography)

The local-colonial schema illustrated in [figure 7](#) depicts the historical layers that shape Magelang Square Town as a palimpsest. Each phase of development leaves traces that remain recognizable in the present spatial structure, indicating that space does not undergo complete erasure but rather accumulates layered transformations. The gradual nature of this transformation renders the alun-alun a space rich in historical meaning. The concept of the palimpsest is employed to explain how multiple layers of history coexist and overlap within the same spatial entity ([Kropf 2017](#)).

Within the framework of Biographical Objects, the alun-alun can be understood as an entity with a historical trajectory reflected through changes in function and meaning. This space has evolved from a cosmological function to a colonial administrative space and eventually into a modern public space. These layers indicate that spatial transformation is not linear but cumulative and continuous. Colonial traces remain evident in building orientation and road network structures, while local elements persist as part of spatial identity.

Thus, Magelang Square Town should be understood not merely as a physical space but as a cultural archive that records the dynamics of local-colonial power relations in a complex spatial form.

Conclusions

This study demonstrates that the spatial transformation of Magelang Square Town is a historical process that is not linear but is shaped through dynamic interactions between local value systems and colonial power interventions. In its initial phase, the spatial configuration of the alun-alun represented Javanese cosmological order, integrating dimensions of power, spirituality, and social life within a unified spatial structure. However, the introduction of colonial authority brought fundamental changes through the reorganization of space into a more rational, structured, and administratively oriented system.

Local-colonial power relations in this study are evident not only in the morphological transformation of space but also in the shifting meanings and functions of the alun-alun. Colonial intervention, interpreted through the lens of State Simplification, reveals a systematic effort to

produce space that is legible, controllable, and subject to surveillance. Meanwhile, from the perspective of the Production of Space, this transformation reflects the dominance of colonial spatial representations over local spatial practices. Nevertheless, the persistence of local elements indicates that the process of transformation involved negotiation, resulting in a hybrid spatial form.

Furthermore, Magelang Square Town can be understood as a space with complex layers of historical meaning. Through the Biographical Objects approach, this space is interpreted not only as a physical entity but also as a “cultural archive” that records the social, political, and symbolic dynamics of different periods. The gradual nature of transformation has shaped the alun-alun into a palimpsest space, where traces of the past remain present and interact with contemporary conditions.

The primary contribution of this study lies in the integration of urban morphological analysis with approaches to power relations and spatial meaning in interpreting the transformation of colonial urban space. This approach provides an opportunity to understand space more comprehensively as a product shaped not only by physical aspects but also by the dynamics of power relations and the construction of meaning. These findings offer important implications for urban planning studies, particularly in understanding public space as the result of complex historical interactions between local and colonial forces.

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References

- Adrisijanti, Inajati. 2000. *Arkeologi Perkotaan Mataram Islam*. Yogyakarta: Global Media.
- Ashadi, Ashadi. 2017. *Alun-Alun Kota Jawa*. Jakarta: Arsitektur UMJ Press.
- Handinoto. 1992. *Alun-Alun Sebagai Identitas Kota Jawa*. Dimensi ARS 18.
- Hoskins, Janet. 1998. *Biographical Objects: How Things Tell the Stories of People's Lives*. New York: Routledge.
- King, Anthony D. 1976. *Colonial Urban Development Culture, Social Power and Environment*. London: Routledge.
- Kropf, Karl. 2017. *The Handbook of Urban Morphology*. Wiley.
- Kusno, Abidin. 2000. *Behind the Postcolonial: Architecture, Urban Space, and Political Cultures in Indonesia*. London: Routledge.
- Kusno, Abidin. 2019. *After the New Order: Space, Politics and Jakarta*.
- Lefebvre, Henri. 1991. *The Production of Space*. Oxford: Blackwell Publishing.
- Lombart, Denys. 1996. *Nusa Jawa: Silang Budaya*. Jakarta: Gramedia Pustaka Utama.
- Nas, Peter J. M. 2011. *Cities Full of Symbols: A Theory of Urban Space and Culture*. Leiden University Press.
- Nas, Peter J.M. 2002. *The Indonesian Town Revisited*. Leiden: KITLV Press.
- Oliveira, Vitor. 2016. *Urban Morphology. An Introduction to the Study of the Physical Form of Cities*. 1st ed. Springer.
- Scott, James C. 1998. *Seeing Like a State*. New Haven: Yale University Press.
- Widayati, D. 2020. "Ruang Tradisional Jawa Dan Transformasi Kota." *Jurnal Kota Dan Budaya* 5 (2).
- Widayati, N. 2020. "Urban Morphology of Javanese City Squares."
- Winata, Denny, and Indri Astrina. 2022. "Implementation of Centrality Concept on Keraton Surakarta Hadiningrat." *Jurnal RISA (Riset Arsitektur)* 5 (3): 314–31.
- Yuliastuti, N., and S. Agustina. 2018. "Spatial Meaning of Alun-Alun Jawa." *Jurnal Arsitektur Nusantara* 9 (1).

Author(s) contribution

Iwan Priyoga contributed to the research concepts preparation, methodologies, investigations, data analysis, visualization, articles drafting and revisions.

Dwi Kunto Nurkukuh contribute to the research concepts preparation and literature reviews, data analysis, of article drafts preparation and validation.

Abdullah contribute to methodology, supervision, and validation.