

Batavia Canal Segregation: Introspection for Jakarta's Urban Space

Euis Puspita Dewi¹, Dini Rosmalia², Siti Sujatini³

^{1,3} Lecturer-Department of Architecture, Universitas Persada Indonesia YAI, Indonesia

² Lecturer-Department of Architecture, Universitas Pancasila, Indonesia

Email address: euis.puspita@upi-yai.ac.id

ABSTRACT

This research investigates the segregation phenomenon that occurs in Jakarta through the lens of the Batavia Canal, exploring its historical and urbanistic role in shaping the social structure and spatial planning of the city. By focusing on developments over time, this study aims to provide an in-depth understanding of how the canals in Batavia, which characterized the city during colonial times, played a role in establishing the segregation patterns that can be observed today. The research methodology involves historical analysis of canals, literature research, and postcolonial discourse analysis to reveal the correlation between canal structures and segregation patterns in Jakarta's urban space. These findings were integrated with interviews and a participatory approach to understand local community perspectives on the perceived impacts of segregation. The research results highlight how the canals in Batavia are not only physical but also symbolic elements in the formation of urban space. Over time, these canals can become associated with social and economic divisions, creating inequalities in access to city resources and services. The implications of these findings provide a basis for deep introspection into Jakarta's current urban spatial challenges, demonstrating the need for inclusiveness-oriented urban planning to overcome persistent segregation. Thus, this research encourages awareness of the complexity of interactions between physical and social elements in Jakarta's urban space. Directed towards solutions based on an understanding of history and contemporary reality, this study is expected to provide valuable insights for more holistic, equitable and sustainable urban planning in the future.

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1. Introduction

Based on a long and complex history, the Batavia Canal, as an urban entity in the colonial era, not only reflects the beauty of architecture and infrastructure, but also marks traces of social and spatial segregation that once occurred. This segregation phenomenon shaped the history of Batavia and left its impact on the development of Jakarta's urban space, which is now one of the largest metropolitan cities in the world. Therefore, the study of Batavia Canal Segregation is an in-depth understanding and essential introspection, not only to trace historical

traces, but also to open up space for reflection on Jakarta's urban space in the future.

It is in this context that important questions emerge: How did the segregation caused by the Batavia Canal shape social and spatial dynamics in the colonial period? To what extent does this legacy of segregation still have an impact on Jakarta's urban space today? What lessons can be drawn from the history of Batavia Canal Segregation to guide the development of a more inclusive and equitable urban space in the future?

By digging deeper into the history of the Batavia Canal, we can conduct critical

introspection on past segregation practices and how these practices can provide valuable insights for designing a more empowered, inclusive, and equitable future. A deeper understanding of this phenomenon not only enriches our knowledge of Jakarta's history, but also provides a basis for seeing how efforts to understand and overcome segregation can shape a more just and sustainable future for the city.

This article aims to provide a comprehensive picture of segregation in Batavia and detail how this pattern creates inequality in social, economic and spatial aspects. Apart from that, this article also provides an explanation of the resulting implications, and introspects on their impact on Jakarta's current urban space. By looking back, we can gain a deeper understanding of the historical roots of segregation and how this history shaped the thinking and design of urban spaces as we know them today. In the future, it is hoped that ways can be found to create more inclusive and just urban spaces.

This research will combine historical approaches, literature analysis, and physical space mapping to obtain a holistic picture of the segregation formed by canal elements in Batavia. Through archival data, historical documents, and mapping of current conditions, we can identify how this segregation is reflected in the current spatial patterns of the city of Jakarta.

Introspection on segregation in Batavia is not only relevant for understanding Jakarta's history but also has deep implications for policy design and future planning. This article seeks to contribute to the discourse of positive change in creating inclusive and sustainable urban spaces. By going further into the story of the Batavia Canal, it is hoped that this article can open the door to positive change in rebuilding Jakarta's urban space to make it more comprehensive

and fair.

2. Material and Methods

This research uses a qualitative research framework involving a historical approach, literature analysis, and physical space mapping. This methodology is designed to provide an in-depth understanding of segregation along the Batavia Canal and its impact on Jakarta's urban space.

The data used comes from:

- a. Archives and Historical Documents: Analyze historical documents, colonial records, and official archives related to the construction of the Batavia Canal and related colonial policies.
- b. Literature: Conduct a literature analysis regarding the history of the Batavia Canal, the concept of segregation, and its impact on urban space.
- c. Physical Space Mapping: Mapping the current physical conditions along the Batavia Canal. Identify physical structures that reflect segregation and changes in urban space over time.

This research uses the following analytical approach:

- a. Historical Analysis. Analyzing historical data to understand significant changes in policies and developments in urban space related to the Batavia Canal.
- b. Literature Analysis: Details findings from literature analysis to identify theories related to segregation and its impact on urban space.
- c. Physical Space Mapping Analysis: Identifying physical patterns that reflect segregation, as well as changes in urban space over time.
- d. The Postcolonial Discourse Analysis

Method is an approach used to examine, understand and criticize discourse or narratives related to the colonial and post-colonial period. This method focuses on dismantling and critically examining representation, meaning construction, and the effects of power in the discourse.

Findings from historical analysis, literature, mapping and postcolonial discourse are used to draw holistic conclusions regarding segregation in Batavia and further to formulate research implications for policy design and development of more inclusive urban spaces. This research of course also has limitations related to historical data and potential bias in data interpretation.

3. Segregation in Urban Space

Much research on segregation has been carried out in various parts of the world. Research on segregation needs to address the fact that segregation is a phenomenon that is basically complex and spatial in nature [1]. Segregasi dalam ruang kota mencerminkan kompleksitas dinamika sosial, ekonomi, politik dan spasial yang mempengaruhi struktur dan karakteristik masyarakat perkotaan [2, 3, 4, 5].

Segregation is defined mathematically as the ratio of the kind of segregated element (for example, Blacks) in a given larger region to its sub-area. We contend that pre-modern and postcolonial types of segregation are significantly less influenced by this space/race-alignment [6] propose focusing on the fluid cognitive dimension of what segregation is, close distance, for a long-term history of segregation concerned with many other dominating themes and objects of segregation (such as religion, non-racist ethnicity): 'distance' can refer to physical

space, but it is also far more open to cognitive forms of distance [6].

Several literatures detail the understanding of segregation systems in urban space by highlighting the driving factors and their impact on urban life. Factors such as economic inequality and tensions between groups can reinforce segregation in urban spaces. This theory views segregation as the result of complex interactions between humans and the physical environment.

The history of segregation is typically focused on racial forms of segregation, whether in colonial contexts. In many countries, the system of colonialism and slavery has been a major factor in creating racial segregation. During the colonial period, colonists often introduced segregation policies that differentiated between certain racial groups [7, 8, 9, 10]. The relationship between race and segregation involves a number of historical, social, economic, and political factors that influence how society views and treats certain racial groups.

In some studies, several factors such as accessibility, transportation, and resource distribution also play an important role Liu, [11, 12, 13, 14, 15, 16, 17, 18].

Economic segregation arises due to income disparities between groups, affecting access to housing, employment, and services [19, 20, 21, 22, 23, 24, 25, 26].

Unequal education can lead to segregation, with certain areas having limited access to quality educational institutions. [27, 28, 29, 30, 31, 32]. Segregation can reinforce social and economic inequalities between groups in urban spaces. Segregation often contributes to social tensions and conflict between groups. [33, 34]. Segregated groups may face

limited access to health services, employment, and education. Segregation can create inequalities in opportunity and social mobility. [35, 36, 37]. The principles of inclusivity in urban planning can be promoted to reduce segregation and create more equitable urban spaces. Ideally, sustainable housing development with equal accessibility should be the basis for overcoming segregation [38, 39, 40, 41, 42].

4. Colonial Urban Canal

Colonial urban canals had deep significance in shaping the structure and characteristics of urban space during the colonial period. Through a long history, these canals not only functioned as physical waterways but also became a reflection of the social and economic dynamics of their time. Carse, A. (2014) [43, 44].

Along with awareness of the complexity of the development of canals, a holistic approach is needed in city planning that combines historical, social and economic aspects. By exploring a deeper understanding of colonial urban canals, communities and policymakers can design inclusive solutions that bring positive change to Jakarta's urban space towards a more equitable and sustainable future.

Based on literature about Colonial Urban Canals [45, 46, 47, 48, 49, 50], several important conclusions can be drawn that summarize a deep understanding of the role, impact and characteristics of urban canal systems in the colonial period:

a. **Multidimensional Role:** The urban canal system in the colonial period was not only a functional infrastructure element, but also had a multidimensional role. In addition to transportation functions,

canals are used to integrate urban planning, support economic growth and become centers of economic exchange.

- b. **Transformation of City Morphology:** The implementation of the canal system significantly shapes the morphology. Canal development patterns influence spatial structure, city architecture, and the formation of social and economic enclaves.
- c. **Social and Economic Impact:** Colonial Urban Canals not only affect them physically but also create profound social and economic impacts. Urban communities around the canal experienced a transformation in lifestyle, social relationships, and economic opportunities.
- d. **Relationship with Colonial Power:** The construction and management of canals was also an instrument of colonial power. Decisions regarding canal construction reflected the colonial rulers' political and economic agendas, often resulting in inequality between various groups in society.
- e. **Adaptation and Legacy:** A number of colonial canal systems remain relevant in contemporary urban contexts. The adaptation and preservation efforts of these canals reflect a valuable historical heritage and are an integral part of the identity of these cities.
- f. **Challenges in Contemporary Contexts:** Despite their valuable historical heritage, colonial canals also face challenges in modern urban contexts. Physical limitations, sustainability, and redevelopment considerations are some of the issues that need to be addressed.

Thus, an in-depth understanding of the Colonial Urban Canals provides valuable insight into the complexity of the

relationship between urban infrastructure, social dynamics, and colonial policy. This understanding also has practical implications in contemporary urban planning and historical heritage preservation.

5. Results and Discussions

5.1. Canal of Batavia: Urban Segregation Element

Morphologically, Batavia was built with a grid system. The canal and road elements in Batavia are made with a grid which is filled with buildings intended for residents or visitors to Batavia (Fig. 1). A grid design definitely has a purpose for the maker. Several sources say that the architect of Batavia's city planning was Simon Stevin, but in fact there is no evidence to show this, because there is no data that shows that he had ever been to Batavia.

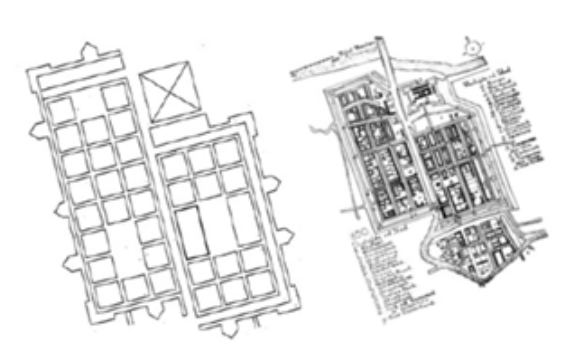


Figure 1. Ideal Plan for a City
Source: Sumber: HIS dan Map of Batavia 1678 (Arsip Nasional Republik Indonesia)

Simon Stevin has the concept of an Ideal Plan for a city and only inspired Batavia city planning with a grid pattern. The grid shapes are actually an influence of Renaissance thought. The issue of adaptability in Simon Stevin's design proposal is only an attempt to rationalize its relationship to the gridded canals

In Batavia, the grid pattern is very clearly

visible from the relationship between canals and canals with roads that intersect each other perpendicularly to form blocks within which there are masses of buildings. The city walls are flanked by two canals, and surround the city of Batavia. The canal, which consists of an Inner Canal (Binnengracht) and an Outer Canal (Buitengracht), adds to its strong role as a dividing element. Figure 2 shows the position of cities within the walls (1) and cities outside the walls (2,3,4,5) which have differences in the provision of facilities.

Kostof states that the reasons for creating a grid system are very technical, because it is the most neutral system in accommodating the needs of society well. The positive impact of this system is that it is easy to understand and produces a more orderly distribution of land, so that it can have an impact on the distribution of facilities that accommodate the needs of the city's residents. Physically, the grid pattern shows a textural relationship between buildings and open spaces as solid forms and open voids.

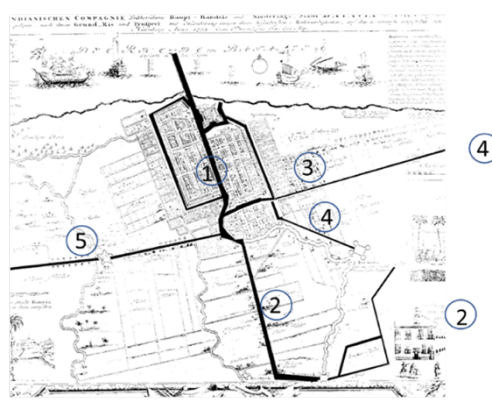


Figure 2. The Position of Cities within the Walls and Cities Outside the Walls
Source: Analyzed from Arsip Nasional Republik Indonesia

However, more than that, the grid pattern on the canals also shows a segregation system to divide a diverse and multi-ethnic population (Fig 3). Batavia is a city with residents coming from several corners of the world with several layers and forming a hierarchy. Even though it was VOC rule, there were few Europeans in Batavia. Most of the Europeans in Batavia were soldiers and sailors and not from the upper class. Meanwhile, the European elite lived in a certain area, namely the Tijgersgracht area. Apart from native Europeans, the population of Batavia consisted of a mixture of Europeans and Asians (Eurasians), Chinese, Indians, Moors, Javanese, Malays, Balinese and slaves whose origin was not clear.

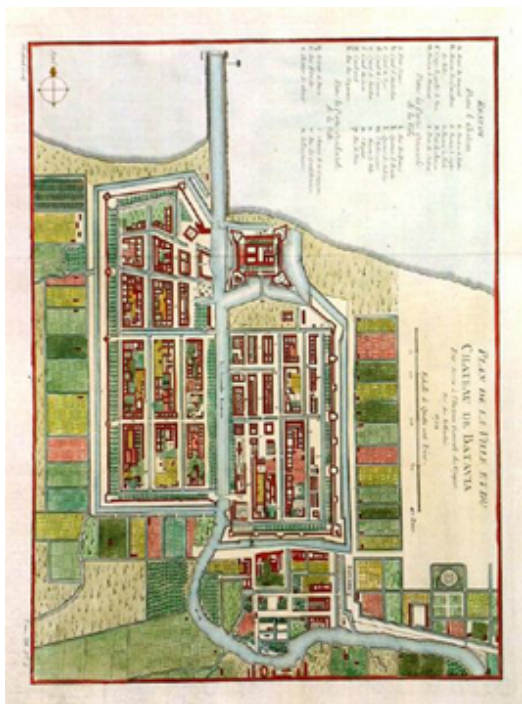


Figure 3. Grid pattern of Batavia as an element of population segregation
Source: KILTV Leiden

The canal in Batavia is an element that plays a role in forming a system of segregation and determines the level of stability (De Haan, 1922, vol. I). De Haan

(1922, vol. I) stated that the closer to the canal, the higher the value of the area and the more expensive and prestigious it is. One of the reasons is due to considerations of ease of transportation access and a good view of the canal. The elite community in Batavia dared to pay high prices to get housing close to the canal. The richer and higher a person's social and economic status, the greater the chance of getting an area near the canal with the best view. Conversely, the lower the status of the occupants (such as slaves, lowly employees and non-European people), the further they were placed from the canal.

The segregation system formed by canals in Batavia as a colonial city is unique compared to the segregation systems in other canal countries. Its implementation is not as common as in European countries which use grid patterns as a segregation medium that only separates types and functions. In general, the segregation system formed by a grid pattern aims for distribution and equalization functions. Meanwhile in Batavia, canals played a role in creating social and power differences and hierarchies. In essence, all infrastructure was created by Europeans to defend colonial territories and facilitate acts of exploitation in their areas of control [51].

A map 1622 shows that all facilities were initially built near and along the Ciliwung River. The existence of castles, walls, harbors and water toll roads and booms, as well as guard posts show that Batavia was planned as a closed city with tight security. The canals that were built have also shown their role as enclosures for the residences within them (Fig. 4).



Figure 4. The existence of Tolhuisen and Boom on the Map of Batavia
Source: KILTV Leiden

The canal symbolised the powerlessness and lack of knowledge of indigenous communities on cleanliness and healthiness. European buildings equipped with a sanitary facilities was a contrast with the “backwardness” of indigenous people who still used the canal as a place to wash and clean. The laundry activities along the canals, however, displayed the breakdown of the division between dirtiness and cleanliness as a form of European domination over the Native. The canal thus, was an evidence of the dependency of European society on the indigenous community [52].

It can be concluded that canals played an important role in separating communities

based on social class and ethnicity. During the colonial period, canals became physical boundaries between Dutch settlements and indigenous populations or between urban areas and inland areas. Consequently, the social structure of cities is inherently divided creating inequalities in access to resources and services.

5.2. Analysis of Postcolonial Discourse on the Batavia Urban Canal as Material for Introspection on Jakarta Urban Space in the Future

Analysis of Postcolonial Discourse on the Batavia Urban Canal can provide rich introspection material for understanding Jakarta Urban Space in the future. By using a postcolonial discourse approach, we can identify the perspectives and narratives contained in the history of these urban canals, as well as analyze their impact on identity, urban policy and the concept of urban space in Jakarta.

Analysis of postcolonial discourse on the Batavia Urban Canal is the first step in opening an understanding of complex urban history. With deep introspection, Jakarta can look at its future with a more inclusive perspective, based on local identity, and focused on empowering the community in creating a sustainable and just urban space. Analysis of postcolonial discourse on the Batavia Urban Canal is the first step in opening an understanding of complex urban history. With deep introspection, Jakarta can look at its future with a more inclusive perspective, based on local identity, and focused on empowering the community in creating a sustainable and just urban space.

As a result of this legacy of the past, several areas in Jakarta experience ongoing segregation, with limited access to economic opportunities, education and public facilities. It is important to remember that this

phenomenon is complex and influenced by many interacting factors. Sustained policy and social efforts are needed to overcome and disrupt these patterns of spatial segregation.

The pattern of urban segregation during the colonial period had long-term impacts that are still felt today in Jakarta. Segregation is primarily racial and social, creating inequalities in access to resources and facilities between certain groups of society. The following are some aspects of urban segregation patterns inherited from the colonial period in Jakarta:

- a. Very high inequality between European and Indigenous settlement. During the colonial period, indigenous settlements were located on the outskirts of cities or in more remote areas with poor conditions and limited access to public facilities. In contrast, European and Dutch settlements, such as Weltevreden and Menteng, became centers of economic and political power. This area was designed with better facilities and represents social and economic segregation. This condition continues until now. Several areas in Jakarta have settlements dominated by certain ethnic groups, creating social segregation based on ethnic background.
- b. Limited Infrastructure and Access. Dutch-made canals were used to separate European and native settlement areas. The canal becomes a dividing element that creates spatial segregation.
- c. Limited Access to Public Facilities. Public infrastructure and facilities, such as schools and hospitals, were better in European settlement areas, while access to such facilities in indigenous settlements could be limited.
- d. Trade Area and Government Center. The center of government and administration was located in an area considered to be the center of Dutch power, creating

segregation in decision making and public services. This segregation inherits the condition of Jakarta as the capital city of Indonesia as the center of all activities, while ignoring equitable development throughout the region.

- e. Unequal Economic Growth. Rapid economic growth during the New Order era tended to be concentrated in certain sectors, creating continued economic segregation.
- f. Urban Development and Infrastructure Development. The development of business centers and government centers in several regions continues economic and social polarization. Some large development projects, such as luxury shopping centers, can trigger gentrification and change the social and spatial structure of an area.

The pattern of urban segregation inherited from the colonial period to the present creates social and economic inequality between various groups in society. Although a number of changes have occurred since then, the challenges of integration and inclusivity still remain, and serious addressing is needed to achieve a more equal society in Jakarta.

6. Conclusion

In reviewing the Batavia Canal Segregation phenomenon as a material for introspection for Jakarta's urban space, we can draw several conclusions that provide deep insight into its history and impact on urban areas today. The Batavia Canal, as a symbol of a separate segment in colonial society, implies not only architectural and urbanistic history, but also traces of the social and spatial segregation that characterized the past.

The importance of understanding Batavia Canal Segregation lies in opening a space for reflection on its influence on Jakarta's urban space today. Over the course of history, this phenomenon has created disparities in access to resources, policies and opportunities

between societal groups. This legacy of segregation, although transformed over time, still leaves an imprint on current patterns of urban life.

Even though Jakarta has grown into a developed metropolitan center, questions of inclusivity, justice and participation continue to be relevant. Introspection on the Batavia Canal Segregation not only leads to a deep understanding of Jakarta's history, but also becomes a call to design a better future. The importance of designing inclusive and equitable urban spaces is becoming increasingly urgent, drawing on valuable lessons from past mistakes and inequalities.

As a result of this introspection, we are faced with a shared responsibility to build urban spaces that accommodate diversity, support active community participation, and care for voices that may be marginalized. By integrating the values of inclusivity in city planning and development, Jakarta can carve out its future as an urban environment that is friendly, sustainable and unites all elements of society. This conclusion is a call for collective action, inspiring a spirit of change and leaving a positive footprint for future generations.

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