Territorial space: Structural changes in a religious tourism area (The case of Kampung Mahmud in Bandung, West Java, Indonesia)

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Abstract. At specific periods in time, settlements will experience changes (transformations) related to time and human activities. Such change is a process of adapting and responding to human needs for space. In Kampung Mahmud, religious tourism such as Muslim pilgrimage activities and Islamic events in the settlement causes changes in the space of settlements, especially in dwellings. This study aims to determine the territorial structural changes of settlement spaces when religious tourism activities in Kampung Mahmud take place. This research uses a mixed-method approach of quantitative and qualitative methods. The observed transformation is in the form of transient or temporal changes of space. The observed changes during religious tourism activities were territorial shifts from private areas to shared areas. A shift in territorial structure could be seen as an increase or decrease in structure. The study found three schemes of territorial structure changes in Kampung Mahmud; the settlement experienced an increased shift in territorial structure in both the outer and inner spaces of the settlements. The three schemes of the shifting territorial structures create a shared space.

1. Introduction
The development of settlement areas as tourism destinations has become a growing phenomenon these days. Its development is based on the areas’ potential in the form of its people and natural and cultural heritage [1]. The development of tourism requires facilities and activities to stimulate changes in the conditions of the local settlement. Observations on the transformation of the use of space over time and the ongoing activities are explained by Turner’s theory (1972) that states occupancy is a process (housing as a process) related to time and activity [2]. The transformation of a settlement is a naturally occurring dynamic process. Transformation can be seen from physical, territorial, and cultural aspects [3], which are all closely interrelated. This paper discusses the territorial aspects of the transformation process. The settlement territory is very dependent on the activities of its inhabitants who control their space. Settlement transformations occur when relevant interests and needs are fulfilled.

Kampung Mahmud is a settlement with religious tourism attractions, namely Muslim pilgrimage activities and Islamic religious events. Pilgrimage activities take place at the village founders’ holy tombs of Eyang Dalem K.H. Abdul Manaf, Eyang Agung Abdullah Gedug, and Eyang Agung Zainal
The three figures played vital roles in the development and spread of Islamic teachings in Bandung. The village organizes regular religious events, such as the commemorations and celebrations of Islamic holidays in the form of Tabligh Akbar or mass congregations. Over time, the development of tourism activities has impacted the use of space in the settlement, e.g., territorial structural change. The usage of space, in terms of the settlement’s outer and inner spaces during the events, is increased by residents and pilgrimages. These changes in users of space usually create a shift from private areas to a public domain.

Previous research by Purnama [4] on Social Space and the Mass Settlement of Kampung Mahmud – Kampung Mancon compared the spatial state between the two villages [4]. However, the study by Purnama was based only on a few observations. This paper argues that in-depth observations should be conducted to fully comprehend the structural changes in space. Based on the descriptions, religious tourism activities create a multiplicity of spatial use to support tourism activities; consequently, there is a change in the function of space. This study aims to identify changes in the use of space from housing-related to religious tourism activities. Changes in the territorial structure were observed in the outer and inner spaces of the settlement during the events, which often attract many visitors. Spatial changes observed are changes in spatial function, spatial structure, dimensions, user space, and the boundaries of the homeowner's territory with pilgrims and missionaries.

1.1 Transformation
Transformation is a gradual process of change from one form to another, which is influenced by physical and non-physical factors, including cultural, social, economic, and political factors, with reference to space and time [5-10]. The transformation of the built environment may be manifested into form order, territorial order, and cultural order [3]. In this study, the emphasis is more on the discussion of spatial transformations. Spatial transformations can be in the form of territorial changes, namely physical changes in space due to users’ control of space. In this study, the users of space are Mahmud’s residents, who are the house owners in Kampung Mahmud. Spatial transformations observed here are changes in space territory in residential environments outside and inside the settlement during the religious tourism activities in Kampung Mahmud.

Prabowo (1998) argued that territory is a pattern of behavior that is connected with the ownership or rights of a person or a group of people from a particular geographical location [11]. Besides that, according to Habraken, "Space under control is territorial": the space governed by rules or supervision is interpreted as territorial [3]. Thus, a territory can be interpreted as a unit of space that has rules or controls related to behavior and ownership. Territories can experience shifting or changing in the existing areas. The shift of territory can increase and decrease the structure of its territory. Below is a description of the scheme of shifts in a territorial structure that can be faced in a built environment according to Habraken [3].

![Figure 1](image.png)

**Figure 1.** Scheme of increasing shift in the territorial structure [3, 12].

Figure 1 illustrates an increased shift in the structure of the territory. Several schemes illustrate the increase in territorial shifts, such as:
1. Scheme a - b1: Changes to realize intensification of space use, which means the division of territories, a shared space zone created before entering new territory;
2. Scheme a - b2: Changes in the use of an existing public space to create its own public space;
3. Scheme a - b3: Changes to create a shared space because it sacrifices or appropriates some private space for the shared zone.

A shift in territorial structure occurs because of an increase in the number of people and their activities in a settlement [3]. This change occurred in Kampung Mahmud during religious events. The event changed the space in terms of activities, functions, and users. In addition to increasing the territorial structure, shifting can decrease the territorial structure described in the scheme below.

![Figure 2](image)

Figure 2. Scheme of a decreased shift in the territorial structure [3, 12].

Figure 2 illustrates a decreased shift of the territorial structure. There are several schemes that illustrate a decrease in territorial shifts, such as:
1. Scheme a - b1: Changes occur due to opening one gate from several existing territories;
2. Scheme a - b2: Changes occur due to opening an existing gate from a territory.

Shifts in decreasing territorial structure are caused by the need for a larger area to support human activities. According to Habraken (1998) in Pamintori [13], the change of a built environment is the result of human interventions by individuals or groups in controlling their space via changing the placement, displacement or shift of elements. The schemes of shifting the territorial structure in Figure 1 and Figure 2 according to Habraken is used as a guideline in viewing the shifting of territorial structure that occurred in Kampung Mahmud during religious events [13].

1.2. Studies of space

Space is a place for executing and accommodating several activities within it. This is in line with the Gordon Cullen in The Concise Townscape (1961), who explained that an environment is arranged by activities in the lives of its people [14]. The environment greatly influences the development of the community, psychologically (non-physically) as well as physically; its arrangement is influenced by the physical and time dimensions. Moreover, Sasonko (2005) explained that space is influenced by an activity or ritual event that is part of the culture of the community to realize permanent and temporal spaces [2, 12]. Permanent spaces do not change in terms of their activities, functions, and space users. Meanwhile, temporal space changes in terms of its activity, function, and use of space. Here, space is flexible and can change according to the needs and use of the activity.

According to Hawking (1988) in Yudistiria [15], humans could determine what elements form space during the events. An event can create temporary space. The word temporary comes from the Greek 'ephemeros', from 'epi' (one) and 'hemerai' (day), which means only one day. The concept of temporary space is based on an understanding of the events and the space used for the events [15]. A simple ephemeral space appears momentarily, e.g., an event that only appears at certain times. This study observes religious events in Kampung Mahmud with its religious tourism activities that create ephemeral or temporal space. Changes in space are observed in the outer spaces of settlements and spaces in the dwellings. They are observed during Islamic events, including celebrations of Islamic
holidays (Idul Fitri Day, Idul Adha Day, and Islamic New Year), and other Islamic events (Maulid of the Prophet Muhammad SAW, Isro Mi'raj, etc.).

2. Methods
This study used a mixed-method approach [16]. Observations of changes in the outer spaces of the settlements are explained qualitatively whereas observed territorial changes in the inner space of the settlement are explained quantitative-descriptively. Observations of the outer space of settlements are the first step and a way to view changes in the territorial structure of the space in the residential area of Kampung Mahmud.

2.1. Data collecting method
The primary data were obtained from field observations, and structured interviews with informants consisting of the neighborhood chief, customary elder, and chairman of the foundation along with 100 residential units in Kampung Mahmud. Furthermore, secondary data from library resources were collected in the form of books, theses, journals, articles, and related data. Interview guidelines and questionnaires were arranged based on variables obtained from theory and the results of preliminary observations. The variables of this study are territories and users of religious tourism activity.

The population of this study comprises all residences in Kampung Mahmud. Meanwhile, the random or probability sampling technique was used to determine the 100 residential units to be interviewed, which provides an equal chance for each object in a predetermined population to be included in the sample. Specifically, the random/probability sampling used was cluster sampling [17] due to the extensive nature of the community and the data sources studied [18]. The following is a division of settlements that were interviewed to observe changes in the territory during the events.

![Image of Kampung Mahmud](image)

**Figure 3.** (a) Map of Kampung Mahmud; (b) Division of settlement area (interviewed) from early observation in 2014, 2018

| Settlement | Position |
|------------|----------|
| A          | Located around holy tombs and public cemetery |
| B          | Located along Mahmud street (leading to a cemetery) |
| C          | Located outside the holy tomb area and a public cemetery |

The division of settlement categories is based on spatial-temporal phenomena in the outer space of the settlements during the event and looking at their positions in relation to the center of activity and
the density of pilgrims and event visitors. Residential Area A is located around holy tombs and a public cemetery (religious activity center). Residential Area B is located along Mahmud street (leading to a cemetery). Residential Area C is located outside the holy tomb area and a public cemetery (outside of the center of religious activities). The sacred tombs and public cemeteries are important spatial elements in shifting spaces in Kampung Mahmud settlements.

2.2. Data analysis method
Data analysis began with the elaboration of qualitative data. This describes residential space during low season analyzed and adjusted to existing theories. Next, the data were analyzed on the changes in settlement space from interviews with residents using quantitative methods with distribution analysis on the territorial aspects of their space to obtain the highest frequency. After that, correlation analysis was conducted to find out the relationship between variables. Subsequently, the results of the quantitative data analysis were also explained through qualitative analysis. The analysis was then interpreted and adjusted to the existing theory.

3. Results and Discussion
3.1. Geographical condition of Kampung Mahmud
Kampung Mahmud is located in a delta on a lower, flat area or lengkob (in Sundanese) compared to the surrounding area [1]. The dry old riverbed of the Citarum River forms a physical boundary surrounding the settlement on the east, south, and west whereas the northern part of the village is bounded by the new Citarum river. This village consists of residential areas, plantations, and public cemeteries. In residential areas, residents’ houses cluster in the north extending to the south. Besides, it is also equipped with road infrastructure, which connects Kampung Mahmud with the surrounding areas.

![Figure 4](image_url) The delta form in Kampung Mahmud (Modification of Google Map by authors, 2014, 2018)

At present, the road to residents’ houses has been asphalted and can be traversed by four or two-wheeled vehicles. The road in Kampung Mahmud functions not only for connecting Kampung Mahmud with other villages but also as a circulation for pilgrims who want to visit the cemetery complex. The plantations are located to the west and slightly to the east of the settlements. In the past, residents owned this plantation area, but at present, the ownership of plantation land has shifted to outside communities. The old riverbed of the Citarum River, in which water no longer flows, has been converted into an area for plantation and fishing. On the western side adjacent to people's homes, there are public cemeteries including the tombs of the three village founders. This cemetery complex is an essential element in forming settlements in this village. Formally, the leader of Kampung Mahmud is a neighbor chief (Rukun Warga, RW) heading four neighborhood units (Rukun Tetangga: RT). However,
there is also an informal structure leading the life of the community, namely a customary elder named Hj. Syafei.

3.1.1. Outside residential space. The outer space in Kampung Mahmud has a clustered settlement pattern [19]. The settlement grouping is centered on land located south of the new Citarum river. The settlement was built in clusters and along the main road of the village, stretching from the north of the new Citarum river to the south of the old Citarum river. The orientation of the houses in the village differs.

3.1.2. Inside residential space. The division and function of rooms in the houses of Kampung Mahmud consist of tepas (front), Tengah imah (middle room), dapur (kitchen), goah (place of rice), kamar (rooms), jamban (bathroom). Each room has a different function, and it is based on the activities within the rooms. The picture below is a sketch of the space and the shape of the original buildings in Kampung Mahmud that have not been renovated in the configuration or materials.

![Residential Plan](image)

Figure 5. Sketch of original housing in Kampung Mahmud, 2014, 2018

A small number of residential units in Kampung Mahmud have experienced physical changes, such as changes in the shape and material used in their residential units. These changes do not only occur in physical aspects, but can also be seen from the non-physical aspects, such as changes in territory of a residential unit due to the different activities, functions, and users. Settlements in Kampung Mahmud do not recognize territorial division based on gender (separate spaces for men, women, and children) which is common in traditional Sundanese society. Therefore, territories were not observed based on gender differences but differences in space users based on pilgrimage activities and Tabligh Akbar (mass congregation) events.

3.2. Temporal spatial change on the outside of the residential space

In the outer space, changes were observed incemetry areas, mosque areas, open space areas in the form of fields, terminal areas, and road circulation. Changes in the use of outer settlement space were observed for daily activities and during religious events. During religious events, an increase in the use of open space is noticeable (Figure 6). The activities that took place are in the form of commemorative events and celebrations of Islamic holidays, and events held by individual residents such as syukuran, haolan, etc.

Activities taking place in the outer space are Tabligh Akbar events and parking for visitors of the event. These conditions often provide economic opportunities for Mahmud’s residents to earn an income. This opportunity was seized not only by Mahmud residents but also by street vendors from outside Mahmud who were present at the venue. Figure 6 below shows the differences in the conditions of the outer space of the settlement in everyday life and during events.
During the events, Kampung Mahmud experienced an increase in visitors willing to participate in the events, conduct pilgrimage activities, or look for economic opportunities. The integration of the visitors created a territorial shift between Mahmud residents and the surrounding communities. The shift does not only occur in the outer space but also affects the shift in the inner space of the settlements.

3.3 Changes in territory inside residential spaces
Kampung Mahmud experienced territorial changes, shifting from private areas into public areas as seen in Figure 7.

Figure 6. Use of public space in Kampung Mahmud, 2014, 2018.
Figure 7. Diagram of levels of territory change using the JMP program, 2014, 2018.

Figure 8 below shows the emergence of user areas during the event.

3.4. Shifting territory in the outer space of the settlements
Not only Mahmud’s residents use spaces during the event also visitors who want to attend religious events. During religious events, the use of space functions shifted in the territory between residents of...
Kampung Mahmud and the residents outside Kampung Mahmud. The shift in the function of space in the residential unit occurred as it was used as a place to rest for pilgrims and religious leaders during religious events. These territorial shifts include the increase and decrease of territorial shifts as stated by Habraken [3]. Changes not only occur in the space in the dwelling but also outside which increased the shift in the territory of the public space there by creating its own public space. This illustrates the use of outdoor space on roads, riverbanks, public transport terminals for annual major tabligh events.

The outer space of settlements is used by the public to reshape their own public space in line with one of the spatial transformation schemes of territorial change as proposed by Habraken [3]. He stated that an increase in shifting a territory could be in the use of existing public space to create their own public space, which is described as Figure 9 below.

Scheme a in Figure 9 describes the condition of an existing space, which then experiences territorial shifts. Scheme b2 illustrates a shift in territory by using public space to create their own public space on the circulation of roads, riverbanks, and public transport terminals. This is due to the need for a large space that cannot be accommodated in a residential space. However, the shift that occurred in the outer space of the settlement influenced the territorial shift taking place within the inner space of the settlement. The changes or shifts in territory occurring in the outer space of settlements are used to indicate a change or a shift in the residential space in Kampung Mahmud during religious events.

Figure 9. An increase of territorial shifting outside in the open space [3] and a sketch of outside space of settlement for religious events, 2014, 2018.

3.5. Shifting territory in the inner space of the settlements
The shift in the territory occurs not only in the outer space of the settlements but also in the inside space in the form of an increase and decrease in territorial shifts. The increased territory shift that occurs in the settlement is the creation of new areas in the residential unit. The new area is formed by
taking or sacrificing existing spaces to form new areas or zones in the settlements. Changes or shifts in Kampung Mahmud can be seen from the use of space for commercial functions in the form of stalls/kiosks in the space of the residential unit such as in the yard (buruan) and living room (tengah imah).

Further, some private spaces were changed, such as private rooms used as a living room in a syukuran event because the living room is unable to accommodate guests. In addition, changes in the buruan area involvemaking a bale-bale. The formation of new areas is in line with one of the spatial transformation schemes in the territorial changes as proposed by NJ. Habraken [3]. He stated that an increase in the shifting of a territory could be to create shared space that occurs because of sacrificing or taking some of the existing private space for a shared zone, which is described as seen in Figure 10.

The scheme describes the condition of the existing space, and then the changes in the form of territorial shifts. The b3 scheme illustrates the increased shift in territory structure. It explains the changes in a house or shift in its territory to create a shared space that occurs due to sacrificing or taking up some private space. The function of this shared space is to accommodate pilgrims and clerics. In addition to the increase, there was also a decline in the shift of territory that occurred in several residential units in this village. The decreasing shift in territory structure was in the form of changes occurring by opening the gate or door as the existing boundary of a territory. The decrease in territory shift was demonstrated by several residential units that have bamboo fences in their residential units. Specifically, on normal days the fence is closed but during events, the fence that serves as a barrier is lost.

![Figure 10](image-url)

**Figure 10.** Increased territorial shifts inside residential space [3] and shared space in a settlement, 2014, 2018.

Next, the doors leading to the house, especially tengah imah (the middle room) are left wide open during religious events. The loss of the gate or door as a barrier to the existing territory created a shared space. The homeowners use the shared space themselves besides being used by pilgrimage guests, event guests, religious leaders, or mubaligh, Mahmud residents (relatives or neighbors), which increases interactions between them. The formation of shared space is in line with one of Habraken’s spatial transformation schemes in the territorial changes [3]. He proposed that a decrease in shifting a territory could be experienced to create shared space because of the movements of one of the gates, as described in Figure 11.
Figure 11. Decreasing territorial shift inside the residential space [3].

The scheme describes the condition of the existing space, which is changed in the form of territorial shifts. Scheme b2 describes changes or territorial shifts by opening gates. Specifically, the buruan, bale-bale, and middle room reoften used as shared spaces with pilgrims and event visitors. Increased territorial shifts can be caused by increasing density to humans and activities taking place in residential environments [3]. The decrease in territory can be caused by the need for wider space, for example, the influence of space requirements for religious tourism activities in the residential environment and residential units [3]. Decreasing the structure of the territory is done by opening a partition that limits the existing territory so that others can enter this private area. A space shift can also be interpreted as a change in space resulting from human intervention in controlling space by deciding placement, displacement or shifting of an element [3, 13].

4. Conclusion
Changes in the structure of the territorial space in the residential and outdoor spaces in Kampung Mahmud are based on the development of settlements for religious tourism. This is because there is a religious attraction in the form of pilgrimage activities to the holy tomb (a wali ‘saint’ descendant from Cirebon: Eyang Dalem K. H. Abdul Manaf). Pilgrimage activities and religious events cause changes to the territory between Mahmud residents with pilgrimage visitors or Tabligh Akbar visitors. The territorial shift occurs in the form of an increase of space in the outer and inner spaces of settlements, while the decline only occurs in the inner space of settlements. The increase in the outer space is in the form of public space by creating their own public space. The territorial changes themselves occur in the use of terminal areas, roads, and some fields for the events. Increased territorial shifts in residential space are in the form of changes at the expense of private space to be used as shared space. Meanwhile, the decline in shifting territorial structure is in the form of opening one gate or door as a territorial barrier to form a shared space.

Changes in space are short-lived and are only during religious events; the situation reverts back to normal in everyday life. In short, it is temporary, describing a metamorphosis that recurs in each period. This shows that the temporal transformation here is a transfiguration of space that occurs because of activities taking place during religious events (in pilgrimage and Tabligh Akbar) routinely carried out and part of the tradition of the people in Kampung Mahmud. Then, at that time, the shift in territorial structure between the owner of the house (residents of Kampung Mahmud) and other people (visitors to the pilgrimage and religious event) take place in the residential space in Kampung Mahmud, causing a shift towards a shared space.

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