

## **Building Transformation at Kampong Mahmud, A Traditional Village at Citarum River's Bank**

**Nurtati Soewarno<sup>1)</sup>, Eggi Septianto<sup>2)</sup>, Irfan S. Hasim<sup>3)</sup>**

<sup>1)</sup> nts\_80@yahoo.com

<sup>2)</sup> eggiseptianto@gmail.com

<sup>3)</sup> i.s.hasim@gmail.com

### **Abstract**

Change is something inevitable. From the architectural point of view, change could be identified by observing the physical building shape. Observing cities in Indonesia nowadays, building physical changes could be seen almost in every part, at the city, sub urban even in traditional villages. This study observed Mahmud's traditional village located at the suburbs of Bandung city, Indonesia. The village is located in the downstream region of the Citarum River and was built on piles on a small island in a swamp. Unlike buildings on island bounded by water which commonly facing the water, in this island buildings were built at the center of the island not facing the water and covered by trees because this place was set up for meditated and could also be used as a hiding place from the Colonial army and then it turned into a place to deepen Islam. The access to get there was not easy; this small island could only be reached by rafts when the river was calm. Since the Local Government established the bridge (1997) kampong Mahmud has become easier to reach. This condition has increased the number of occupants, buildings and encouraged the transformation. Using typo morphology method the observation result recognized two building types and their morphology which could be distinguished from the materials and building styles. The easy access to the venue has also attracted many tourists to visit the village. The transformation that had been occurred in the old buildings was an effort to accommodate the needs of tourists who stopped by for either short (overnight) or long term. What kinds and how did it occur to these vernacular buildings? Is kampong Mahmud could still be classified as Traditional Village? Because the old buildings are culture heritage the intervention of local government to organize the changes is expected so that the cultural heritage could be preserved.

**Keywords:** traditional house, vernacular building, transformation

### **I. Introduction**

Indonesia, an archipelago with thousands of islands. Most of the inhabited islands have different culture seen by the shape and building styles. Traditional buildings are cultural heritages that should be maintained for its authenticity. As time goes by problems occur, causing the decline of the authenticity of a traditional house.

In many areas traditional houses encounter changes. Various obstacles are faced such as the difficulties in finding material because the loss of the natural resources, no successor, high cost maintenance and so on. Besides of that the impact of globalisation is inevitable. The ease of information and knowledge access causes the absorption of western cultural scraping the local culture (1). Gradually this eliminates the culture identity formed by the ancestors, occurring also on some traditional villages in Indonesia, one of them is Mahmud village (Kampong Mahmud).

Kampong Mahmud is a traditional village established in the 18th century. This village was built on sedimentation soil or delta of the Citarum river. The founders deliberately separate this area from the land from the mainland for a hiding place from the pursuit of the Dutch colonial army. Several prohibition are issued such as playing music, breeding goose and sheep to avoid noise (2). The little island begun to be visited frequently since it was used as a place to learn Islam. For that purpose new buildings were built on the West side, surrounding a Mosque and closer to the dock. Meanwhile the old buildings are located about 150 meters to the East. In 1997 the government built a bridge on the North side of the island and reclaimed the South side river to ease the access to Kampong Mahmud.

At present the impact of the ease of access is seen on the buildings. The extent number of travelers boosts transformation on traditional houses. Transformation is mainly seen on the West side houses near the Mosque. This is the result of the increasing numbers of pilgrims arriving to pay respect for the founders of Kampung Mahmud graves, located near the Mosque. Building transformation is one way to fulfill the needs of the pilgrims like small shops, stands, lounge and bed rooms. Ease of access also make it easy to bring in material for new buildings especially along the new main road connecting North and South side of the village. This road becomes a new axis intersect the old one (West to East).

At this moment the traditional homes are a minority in Kampung Mahmud. But could still be recognized by the building material, shape and style. Traditional houses are heritage handed down for generations, righteously to be maintained. The intervention of the local government is expected to regulate the transformation. The authenticity of the traditional house is also expected to attract tourist to Kampung Mahmud

## **II. Literature Review**

### **II.1. Traditional House**

Tradition is a cultural continuity transmitted in the form of social attitudes, beliefs, principles and conventions of behavior etc (3), one of the tradition is to build the house. As for a traditional house could be interpreted as a house built and used with a same way for generations with a small or not at all changes. Other than that, the traditional house have an unwritten law at the time of establishment such as ritual when setting up the first pole/column, the house orientation etc (4). Traditional Village is a habitation dominated by traditional houses and the society still continue their costum rituals until now.

### **II.2. Vernacular Building**

According to Oliver (5) vernacular architecture as "Folk building growing in response to actual needs, fitted into environment by people who knew no better than to fit them with native feeling". While Ronald Brunskill (6) defined the ultimate in vernacular architecture as:...a building designed by an amateur without any training in design; the individual will have been guided by a series of conventions built up in his locality, paying little attention to what may be fashionable. The function of the building would be the dominant factor, aesthetic considerations, though present to some small degree, being quite minimal. Local materials would be used as a matter of course, other materials being chosen and imported quite exceptionally.

Traditional houses could be said as vernacular buildings because in common it is a communal building that could be inhabited by more then one family. The house applies architectural style adjusted to local climate with local material available from the surrounding area. The geographical position of Indonesia lies from West to East having different climate and environmental conditions causes Indonesia to have various traditional buildings each and every one adjusted to the local culture and climate.

### **II.3 Transformation**

According to Antoniades (7) transformation is a slowly changing process until it reaches its peak. Changes are responses to external and internal influences that direct the changing from known shapes before, through repeatedly reduplicating or doubling the object. Alexander (8) describes transformation as a slow and unpredictable process with the beginning and end shifting, depending on the influencing factors. The nature is comprehensive and sustainable and has connections with social values in the society. In the presence of various forces, architecture of physical forms, mainly buildings, transform through changes to their shapes. Those changes carry with them significant influences to shaped spaces, through either inner space formations, outer formation or space formations in between.

### III. Method

This research used typo-morphology method by directly observing to the location.

#### III.1. Typology and Morphology Method

Typology is ‘System of groupings that aids understanding of the things being studied by distinguishing certain attributes or qualities among them that serve to link them together into a closed set of items’ (9). There are several definitions of typology in architecture, one of them is: ‘It is neither a spatial diagram nor the average of a serial list. It is fundamentally based on the possibility of group in objects by certain inherent structural similarities’ (10).

Research and building type determination is based on the same social background of the society, base form, function and building style similarity. The development of every type will be different.

#### III.2. Observation

Basically the observation technique is used to watch and observe social change phenomenon grow and thrive which could later on be modified by the observation implementer to see the object in a certain moment, so he can separate the needed and the unneeded (11). This research observe the changes occurring on traditional houses associated to the social culture changes of a community.

### IV. Typo-Morphology Building at Kampung Mahmud

#### IV.1. Location

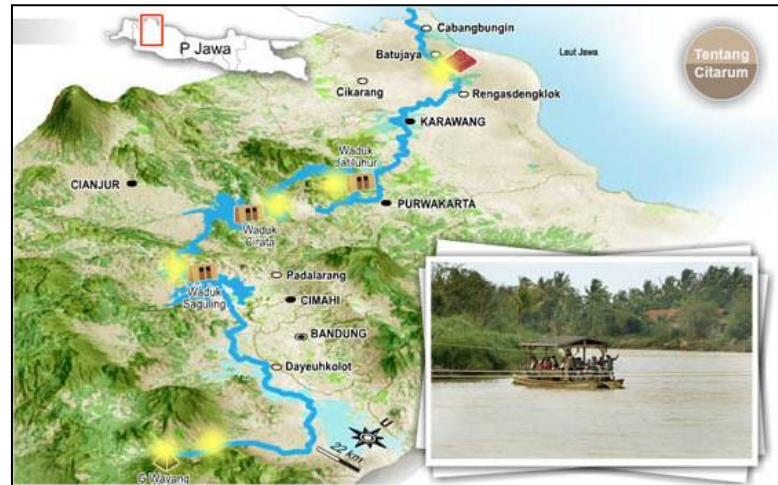
Administratively Kampung Mahmud lies in the Mekar Rahayu country, Marga Asih sub district of Bandung regency, about 7 km from Bandung city center. The kampung is 4 Ha (40.000 square meters) large. The kampung lies on the riverbank of Citarum River, separated from other villages (picture 1).



Picture 1: The Location of Kampung Mahmud  
(Source Google.com)

The Citarum River is the largest and longest river (300km) in West Java. Upstream the river starts from the slopes of Mount Wayang (which located in the southeast of Bandung) and the out fall is in the Ujung Kerawang on the north Coast of Java Island. This river provide livelihood to the people in some cities and towns through which it passes (12).

Contributions of this river started since the kingdom Tarumanegara (5th century AD). The potential of the river makes a small hamlet on the banks of the Citarum River developed into a largest Hindu kingdom in West Java. Currently the Citarum river's water accommodate in three dams, namely Jatiluhur, Saguling and Cirata. All three of these reservoirs are used mainly for power generation, irrigation and to accommodate the needs of clean water for several cities large and small are passed (13).



Picture 2: Citarum's river map

(Sources <http://lipsus.kompas.com/cincinapi/watch/2011/09/13/210549/Hidup.di.Negeri.Cincin.Api.>)



Picture 3: The Main Gate and Location of Kampong Mahmud

(Sources [www.disparbud.jabarprov.go.id](http://www.disparbud.jabarprov.go.id) and Processed from Google Earth)

## IV.2. Building Type

By using typology method, it was found two types of building, namely traditional and modern types. These 2 types could be distinguished by the differences of building function, shape, style, structure and material.

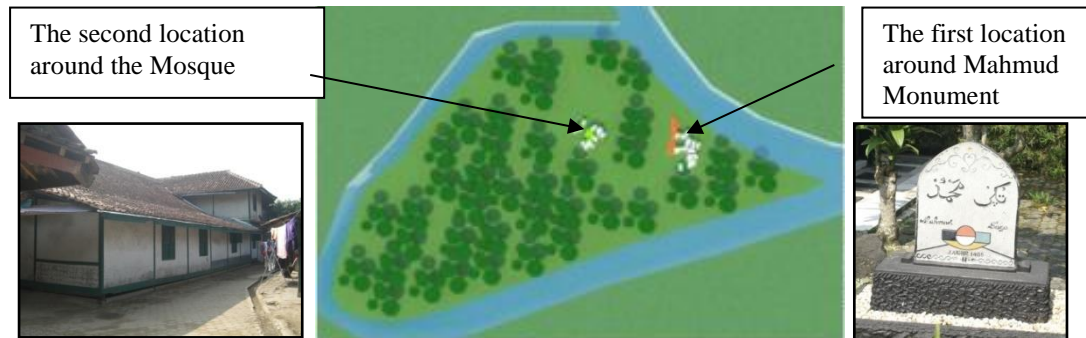
### IV.2.1. Traditional Type

Traditional type is established with the same technique and uses building materials gathered from the surrounding area. From the observation result there are 2 types of traditional building which are:



a. Old Building

These Old Buildings could be called the original type and locate spread among two locations. The first location is around the Mahmud Monument at southern part of the island. Buildings in this location is predicted to be the first ones built, this is related to the initial function of Kampung Mahmud as a meditation place. There are only 8 buildings in this location. They are relatively no undergoing significant changes and no new building built so the distance between buildings are distantly.



Picture 4: The Location of Original Traditional Type  
Source: Personal Document

In this location lies Mahmud Monument, the spot where Eyang Abdul Manafs (the founder of Kampung Mahmud) staff was plugged. This monument became the South part border of the village, at the moment is closed for public. It is only open on certain days (picture 4)



Picture 5: Present Situation of Original Type around Mahmud Monument  
Source: Personal Document

The second location of Old Building is around the mosque which more closes to the harbor. The buildings on this location is predicted built after Eyang Abdul Manaf return from The Holly Land and the village became a place to learn Islamic religion. Buildings were built surrounding the Mosque witch is the center of this location

Nowadays at the back part of the Mosque there lies graves for the founders of the village. These graves become the main attraction for travelers to come to Kampung Mahmud. Thats why this location is more crowded then the monument area. Many buildings were built so this location becomes dense, distance between builings are very close.



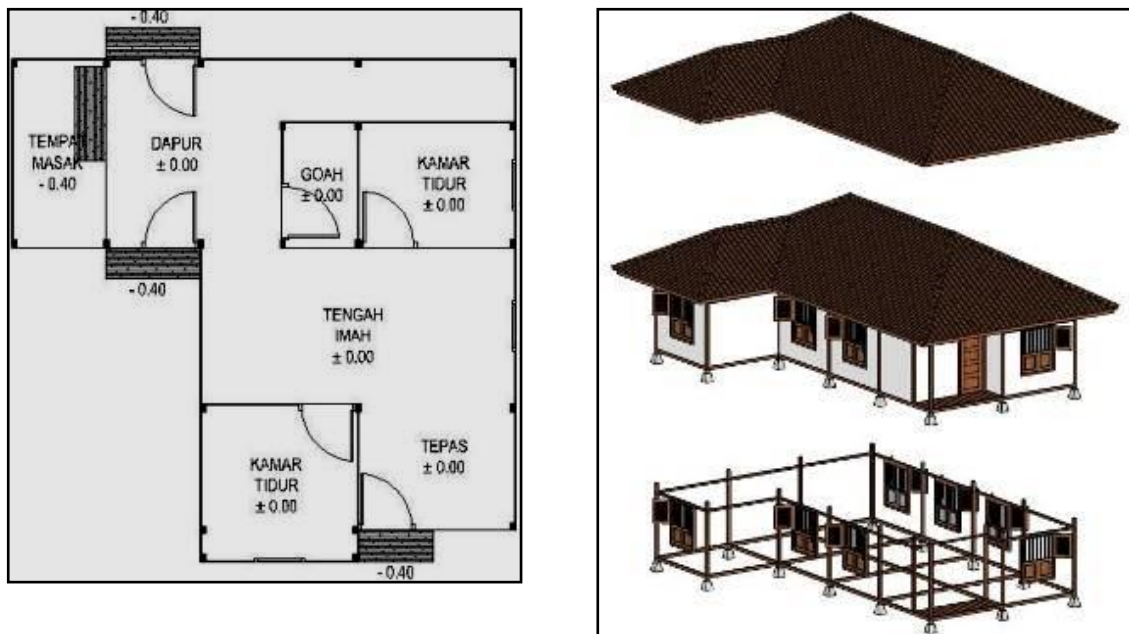
Picture 6: The Original Type around the Mosque  
Source: Personal Document



Picture 7: Present Situation of Building Type around Mahmud Monument  
Source: Personal Document



Traditional building type at this location as in picture 7:



Picture 8: Plan of Traditional Building Type

Source: Personal Document

b. New Building

In accordance with the dry up of the river Citarum the crossing to and from Kampung Mahmud become easy, this boosts many newcomer. At the beginning the newcomer occupy the vacant land around the Mosque, between older buildings and later on occupy land between the two centre points of the village. Mahmud Monument and Mosque. New buildings looks similiar, stilts houses with wooden material and bamboo wall.

Bamboo wall used on this type of building is different from the bamboo wall used on old houses. Bamboo walls on old houses are a product of community webbing while the bamboo walls on new buildings are imported from outside the village. Likewise the use of glass on doors and windows. Brick wall is material banned in Kampung Mahmud.

Old Material	New Material	
		<ul style="list-style-type: none"> <li>•Original bamboo wall made by local people with local material</li> <li>•Bamboo wall on new houses is imported from outside of the village.</li> <li>•Bamboo walls are use for walls corresponding to applied rules</li> </ul>
		<ul style="list-style-type: none"> <li>•Original window without glass corresponding to applied rules</li> </ul>

		<ul style="list-style-type: none"> <li>• Replacement bamboo into ceramic tile</li> </ul>
		<ul style="list-style-type: none"> <li>• Replacement with other type of roof</li> </ul>

Picture 9: The Differences of Building Material  
Source: Personal Document

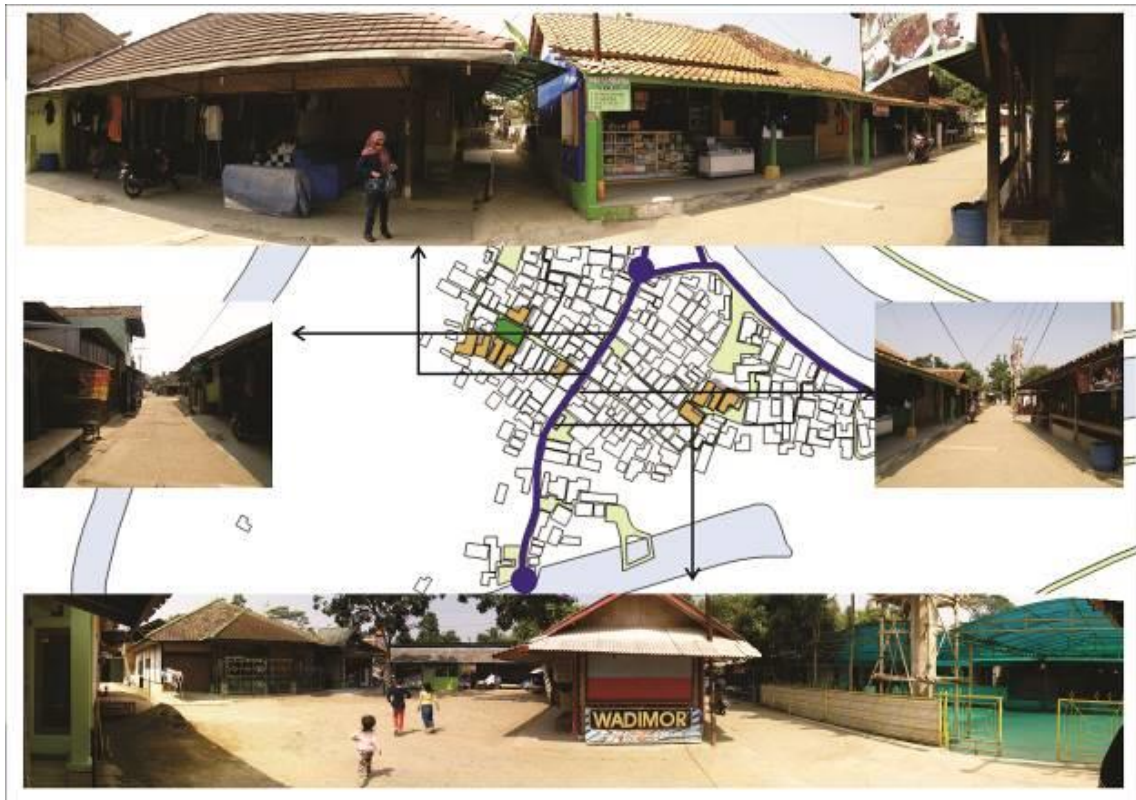


Picture 10: New Building Type  
Source: Personal Document

#### IV.2.2 Modern Type

Modern type building in this research refers to buildings which was built using modern material, such as brick, concrete, still and glass. This building type could be found on the side of new axis which stretches from north to south. This modern type building function tends to be commercial such as stall, retail shop, souvenir shop which provides the travelers needs. Mean while resident buildings lie in the rear part of the commercial building rows, with style and material different from the old buildings.





Picture 11: Modern Building Type  
Source: Personal Document

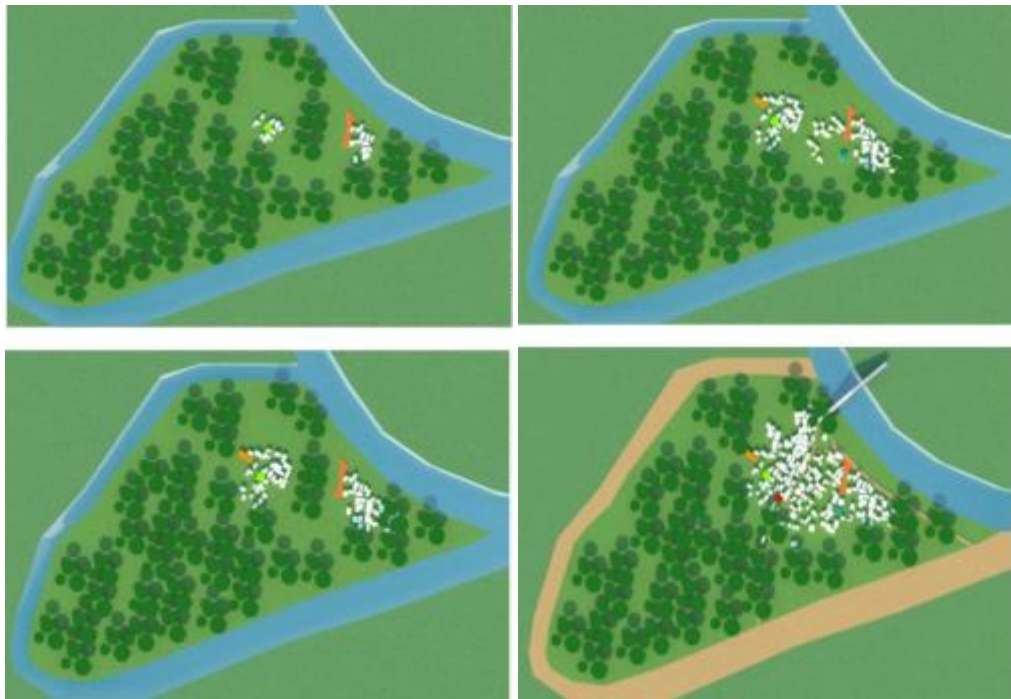
#### IV. 3. Building Transformation

This research only discussed the transformation of the old type of traditional building or the original type in two locations; around Mahmud Monument and the Mosque. The research's result proofed that transformation begins when there was additional functions in the house. Generally this additional function needs to support commercial activity, such as small shop, stall, workshop, garage and lodging. The limitation of space drive buildings to transform from residential only into residential and comercial building. This transformation create a new building type in Kampong Mahmud.

To accomodate new function (commercial), new additional room is needed. This addition is usually in the horizontal way with expansion to the front, back, left or right, deppending on the needs, land availability and obedience of the society to rules applied. The urge of needs, the limited land and the potention of the location is impossible to a house to transform horizontally. By the agreement from the eldest and the society this house can add one floor above and become the only two story building in the village. This building is located behind the Mosque, near to the graves, makes it easy for pillgrims to access both locations.












Picture 12: Additional of Commercial Function  
Source: Personal Document



Picture 13: The Structure of Kampung  
Source: Personal Document



Picture 14: Key plan  
Source: Personal Document

NO	TYPE OF TRANSFORMATION	TRANSFORMATION PATTERN		DESCRIPTION
1	ADDITIONAL SPACE	A	 	ADDITIONAL SPACE TO RIGHT REAR FOR CONVECTION
		B	 	ADDITIONAL SPACE TO LEFT FRONT FOR FURNITURE'S WORKSHOP AND STORAGE
		C	 	ADDITIONAL SPACE TO LEFT REAR FOR FOOD STALLS AND KITCHEN
		D	 	ADDITIONAL ROOM IN FRONT OF THE BUILDING FOR SMALL SHOP
		E	 	ADDITIONAL TERRACE FOR LIVING ROOM
		F	 	ADDITIONAL BATH ROOM
		G	 	ADDITIONAL KITCHEN
2	ADDITIONAL FLOOR	H	 	PICTURE 1 & 2 GROUND FLOOR FOR SHOP AND UPPER FLOOR FOR LIVING PICTURE 3 GROUND FLOOR FOR LIVING AND UPPER FLOOR FOR ROOM RENTAL



3	REPLACEMENT OF BUILDING'S ELEMENT	ROOF	A,B,C,D ,E,F,G, H,I		REPLACEMENT WITH OTHER TYPE OF ROOF
		WALL	I		REPLACEMENT WITH OTHER WOVEN BAMBOO AND BRICK
		FRAME OF WINDOW & DOOR	I		REPLACEMENT TO OTHER STYLE FRAM AND PAINTED
		FLOOR	A,B,C,D ,E,F,G, H,I		REPLACEMENT WITH CERAMIC

Picture 15: Key plan  
BLE 1 Transformation Table  
Source: Personal Document

#### IV. 4. Discussion

From result of the analysis, we can conclude that easy access is the main reason of building transformation. There were two events that caused easy access, which are:

##### IV.4.1 Before the Bridge was established

Because of the reduction on the amount of Citarum's river people can easily cross the river. It caused the increasing of houses. These houses located around the mosque and along the axis which connects Mahmud's Monument and the Mosque that is new type of traditional building.

##### IV.4.2 After the Bridge was established

With the establishment of the bridge is open for public. New type of buildings was created namely modern type.

## V. CONCLUSION

Although river is not the orientation of the buildings in Kampong Mahmud but it has an important role in kampong's development. Since the beginning, the river is used as a boundary which is difficult to pass. This is accordance with the original purpose of kampong established as a comfort meditated place, hiding place and eventually became a place to deepen Islam. The swift flow of Citarum river is considered as a potential to keep the kampong Mahmud as an exclusive place.

Easy access had increase the number of resident which had impact losing of agriculture land. Farmers have to change their occupation into guide, grave keeper, and merchant or find opportunity in the city. Mean while the wives took advantages of their houses to make commercial activities such as open small shop, rent rooms etc. These activities caused the transformation of house function following by change of building shape.

At this moment modern buildings dominated the village so the character of Kampong Mahmud which were traditional village change into modern village. Easy access made building's material to get in so enables the traditional building's material to change. It made traditional buildings look plain and similar to other buildings. Meanwhile, the cemetery became more interesting than traditional building and it's the main attraction.

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