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## Preface

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**PREFACE**

International Seminar on Sustainable Urban Development (ISoSUD) is an International Seminar held by the Faculty of Landscape Architecture and Environmental Technology, Universitas Trisakti, Jakarta Indonesia. The 5th ISoSUD in 2020 carried the theme “**THE SUSTAINABLE DEVELOPMENT GOALS: INNOVATIONS IN ENVIRONMENTAL SUSTAINABILITY FOR BETTER WORLD**”. The ISoSUD has been conducted regularly every 3 years since 2008, and this year is very special because eventhough we are all facing a global pandemic, the enthusiasm of researchers and academics in Indonesia and around the world to participate is still high so that this seminar could be carried out virtually.

Due to the Covid-19 pandemic condition since early 2020 that does not allow the committee to gather many people in one place, this year ISoSUD could not be conducted like the four previous ISoSUD in the auditorium for 1-2 days. Thus the 5<sup>th</sup> ISoSUD was held virtually in 1 day, on Wednesday, August 5, 2020, using the zoom meeting facility. Although virtually, there were 200 participants in the plenary session. The call paper system that has been used since the first ISoSUD in 2008 succeeded in inviting 150 papers that selected into 100 papers were presented using digital technology via video recording. Those 100 papers were selected further to be published in IOP Proceedings Indexed by Scopus. As for the papers that do not pass the selection, they will be published in a national journal.

5<sup>th</sup> ISoSUD was also special because it involved co-hosting universities consist of eight from within the country and three from abroad: Universitas Tridianti Palembang; STT Pekanbaru; Universitas Fajar, Makasar; IT Del, Sitoulama, Sumatra Utara; Universitas Pasundan, Bandung; Universitas Negeri Manado; IT PLN, Jakarta; Universitas Pembangunan Jaya; Institute for Spatial Planning and Environment Research, India; University Putra Malaysia and University of Baghdad. Besides that, it was supported as well by professional association Ikatan Ahli Teknik Penyehatan Indonesia (IATPI), study program cooperation body (Badan Kerja Sama Teknik Lingkungan, BAKERMA-TL) and Global Water Partnership Southeast Asia (GWP-SEA).

The advisory board consists of prominent people in the 5<sup>th</sup> ISoSUD filed. The advisory board acts as ambassadors for the 5<sup>th</sup> ISoSUD. To some extent the quality of the 5<sup>th</sup> ISoSUD is approved by the members and academic credentials of its advisory boards.

In the plenary session, there were main speakers who delivered more focused seminar themes, they were:

**Welcoming Speaker:**

Prof. Dr. Agus Setyo Budi, M.Sc – Head of Service Institutions of Higher Education 3<sup>rd</sup> Region, Jakarta

**Keynote speaker:**



Prof. dr. Ali Ghufron Mukti M.Sc., Ph.D. – Rector of Universitas Trisakti, Jakarta

**Invited speakers:**

1. Fany Wedahuditama ST, MT, MA – Regional Coordinator of Global Water Partnership Southeast Asia
2. Prof. Madya Lar. Dr. Suhardi Maulan – Dean of Faculty of Architectural Design of Universiti Putra Malaysia, Malaysia
3. Prof. Dr. Kareem Hasan Alwan – Centre of Urban Regional Planning University of Baghdad, Iraq

While during the class presentation session, a presentation from the participants representing the 5<sup>th</sup> ISoSUD co-host was carried out. The number of seminar participants was around 200 people consist of academics, researchers, professionals that are from universities, government, private sector, industrial practician and other related institutions. The origin of seminar participants came from New Delhi-India, Baghdad-Iraq, Malaysia, Japan, USA and several provinces in Indonesia.

There were increasing in number of participants and speakers from various countries every time the ISoSUD was held. Several papers were co-authored by authors from Indonesia and other countries.

Hopefully the Covid-19 pandemic will pass soon. The committee hopes that the 6<sup>th</sup> ISoSUD in 2023 could be carried out under normal conditions, involving more speakers from different countries interact each other in the seminar room. In addition, the network for conducting seminars between several universities in Indonesia and abroad as co-hosts could also be improved.

Until we meet again in the 6<sup>th</sup> ISoSUD in 2023.

Jakarta, September, 2020

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# Place attachment of railroad settlement residents, case study: Kampong Tenggumung, Surabaya City

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**Abstract.** Place attachment refers to the formation of one's inner bond with a place. Kampong Tenggumung is a housing area located on the edge of Sidotopo Railroad and currently most of its inhabitants are the third descendants of the original owner. It indicates the formation of place attachment of Kampong's residents toward their environment. Therefore, the research aims to identify the place attachment of Tenggumung's community towards their residential environment. The research method is descriptive qualitative. The study was done by understanding the process of settling and the concept of housing in Kampong Tenggumung through interviews and visual observations of residential areas, supported by map data on regional development. Then, the level of place attachment of the community to their residence was determined. The results showed Tenggumung's community who have formed a particular concept of dwelling, namely the orientation of West-East buildings, a house inhabited for up to 3 generations, the road as a space for interaction, the merging of private-public (semi-private) areas, and the linked activities of residents and the rail border. This showed the level of place attachment of the community towards their environment has reached Level 2 Personalized Attachment.

## I. Introduction

According to Champion [1] and Haddad [2], settlement process is an interconnecting process between human and the environment, where residential activity can be said as people activity to rest in an area that allows them to orientate, identify them with the environment, where that place (locus) acts more than just a shelter. The awareness to resident in a certain area is a product of community identity which is based on local wisdom, in a form of culture which is influenced by various physical aspects. The existence of space is important human and would affect their decision in creating appropriate environment for every individual. Social tradition of a community in a physical environment setting will produce a holistic balance on its life and livelihood patterns, which relate with expectation, preference, experience, and satisfaction levels of the settlement process. This thing can finally produce emotional bond/connection between human and their residents according to their individual perception and cognition, which eventually will create a symbol of their identities (self-identity) [3-5].

Kampong Tenggumung have developed from Railroad Company employee settlement that provides nearby living areas, to an area that provides settlement for people who don't work for the Railroad Company. In the beginning, at early 1942, this settlement only occupied a small area in the eastern part of the railroad. At 1970, the settlement develops to the western area, and today, the area is already adjacent to the railroad tracks. As a settlement located in area owned by Railroad Company, the quality



of life of the people tends to be at a relatively low level without certainty of ownership status on the land. However, this situation does not discourage the people to occupy the area, which slowly develop nearer to the railway along with the population increase. This phenomenon indicates that there is an emotional attachment from the people in this area with Kampong Tenggumung, known as place attachment.

### *1.1. Place attachment*

Place attachment refers to the formation of one's inner bond with a place, for example a residential environment. Theoretically one of the determinants of place attachment is residential satisfaction of a place [6]. The longer a person occupies a residential environment, the stronger the emotional ties they have to that environment. As stated in Purwanto [7], Purwanto and Harani [8], the relationship between humans and the environment is mutually compatible with their cognitive abilities and humans always try to obtain harmony with their environment. The relationship formed will then lead to an emotional bond between someone with a place or also called as place attachment. Place attachment is a symbolic relationship, formed by someone who culturally provides emotional understanding to a space as the basis of a person or a community in understanding their relationship with the environment. This relationship is more than just emotional, it also covers cultural beliefs and practices [9-11].

### *1.2. Place attachment dimensions and factors*

Place attachment is divided into two dimensions, namely place dependence, which is the value of a place for attributes associated with activities performed in it, an arrangement for action; a situation where the value and significance of a place is based on the attribute or resource setting/structuring or on that place [5,12,13]. This relationship is related to place attachment functioned to meet one's needs and goals. The second dimension is place identity which is an emotional bond to place as a form of self-identity. As stated by Cuba & Hummon in Anggraini et al. [12], place identity is defined as "an interpretation/self interpretation that uses the meaning of the environment to signify or put (personal) identity".

Based on stated that factors affecting place attachment are physical factors, social factors, cultural factors, individual factors, memories and experiences, satisfaction of the place, activities agents, and time factors. Therefore, from the theories stated above, it is safe to say to divided place attachment factors into: (1) time factors: period of stay and life experience; (2) social and cultural factors: social network, community tradition and activities; (3) physical and individual factors: settlement quality and residential ownership; (4) satisfactory of the place: A sense of safety toward their environment [3,5,13-15].

### *1.3. Place attachment intensity level*

The possible impact of the mentioned factors towards place attachment level can is that these factors can influence someone's perspective on place. Intensity of place attachment can be categorized into [16,17]:

- Level 1, human only knows and thinks about a certain place without having a strong personal feeling/memory.
- Level 2, personalized attachment; happens when human develop an inseparable memory of a place from their personal experience.
- Level 3, extention; happens when human develop emotional memory with a place or when a place psychologically involves them in any ways.
- Level 4, embodiment; happens when their self limit and the environment become blurry, or in some cases, identity and place transform into a single entity.

Regarding the place attachment concept, it is interesting to examine the reason of the people of Kampong Tenggumung to remain stayed in the area and the development of settlement concept for 3 generations. Based on that, the objective of this research is to examine place attachment of the people of Kampong Tenggumung on their settlement area.

## 2. Methods

The method utilized in this research is a descriptive qualitative method. The scope of the study area in this research is Kampong Tenggumung located in Sidotopo Wetan Sub District, Simokerto Kenjeran Regency, which is precisely at the right side of Sidotopo Wetan Street area. Primary data was obtained by conducting field observation, interview, and documentation. Interview was conducted on people figures that settle in the area for more than 20 years, the head of the area (RT/RW), and building owners inside the area. Sample collection technique is a snow ball sampling technique because it allows the researchers to obtain appropriate information according to the data requirement level [18]. Secondary data were obtained from google satellite imaging service and the area development planning from Surabaya Cipta Karya Public Works Department and Surabaya Bappeko. The variables used in this research are: (1) period of stay and life experience as a community, (2) Settlement quality and ownership, (3) social network and community tradition and activities, (4) the sense of security of settlement area. The utilized analysis techniques in this research were the behavior observation and character appraisal to identify the people behavior towards their environment by conducting observation, interview, and typical development pattern observation which illustrates an area [19]. To analyze place attachment level, a descriptive qualitative analysis technique [20] which divides data analysis stages into several category which are data collection, data reduction, data display, and conclusion or verification drawing.

## 3. Results and discussion

### 3.1. Settlement culture in Kampong Tenggumung

Settlement culture can be understood as a process, started from the early stages of residential area emergence that forms early settlement, to a point where a settlement with its own unique cultural identity is produced as a result of a relationship between the people and its settlement area.

Kampong Tenggumung has developed through 3 generations. The village is no longer a village for Railroad Company employees, but rather a village for retired Railroad Company employees and their families.



**Figure 1.** Initial settlement development in Kampong Tenggumung.

Even though it was different from the original initial settlement formation (as a settlement of Railroad Company employees because it was close to their workplace), the community's attachment to this village has been built and fostered, this was evident by the low level of migration from the village; some interview sources claimed to have migrated to other cities, such as Tulungagung and even Papua, but in the end they still returned to their homeland, which is Kampong Tenggumung. This indicates that a unique culture of settlements has been formed for the villagers, which is not found in other locations, so that it creates a feeling of longing to always return to stay in Kampong Tenggumung. The formation of settling culture formed over 3 generations is caused by:

### 3.1.1. Territoriality strengthening as railroad company retirement village shown by:

- Separator wall building,
- Village quality improvement efforts,
- Joint business,
- The establishment of special communities in the village.



**Figure 2.** Southern area of Kampong Tenggumung (1), northern area of Kampong Tenggumung (2), neighborhood quality improvement effort in Kampong Tenggumung in form of cleanliness contest participation (3).

### 3.1.2. The formation of village tradition shown by the tribute and special ritual in village elder tomb (tomb of mbah Demang). Every citizen intending to hold a special event should ask permissions by performing rituals in mbah Demang tomb.

### 3.1.3. Road utilization as house extension. The dissolution between private and public areas shows close relationship between the people, where they feel safe and not threatened by the environment even though the railways are not separated by fence.



**Figure 3.** Daily interaction of Kampong Tenggumung people with roadways as interaction space.

### 3.1.4. Railroad border as part of the people in the village, is used as children playground, area to raise catfish or goats herding, etc. Even so, some areas are already separate themselves from the railways by building a separator wall based on safety reasons.

## 3.2. Place attachment in Kampong Tenggumung

3.2.1. *Place attachment dimension.* A person's emotional connection to a place, especially towards his neighborhood can result from the role of the local environment in meeting the basic needs of its inhabitants. Personal relationship with this place will form an emotion that has an impact on one's territoriality to a space. The emotional territoriality of the residents of Kampong Tenggumung towards their neighborhood forms a place identity or emotional attachment as a self-identity formation which is shown through table 1.

**Table 1.** Kampong Tenggumung people place attachment dimension.

No	Place Attachment Dimension	Realization	Analysis
1	Place identity	Territoriality	The choice of settlement location close to Sidotopo Station and the railways reinforces the identity of the residents, who are mostly Railroad Company retirees. The construction of a dividing wall by the residents between the village and the railways is intended to mark the formed territoriality.
		Similar social status	Most of the residents are third generation of original inhabitants. The people possess similar social statuses which are Railroad Company retiree families who also work as civil servants and entrepreneurs, the existence of similar businesses as side occupations from the production of pecel and Manado ice, and the formation of the outer edge of the village as a commercial corridor to market their products. The people practice village tradition and rituals for special events.
		Sense of similarity on land ownership status	The status of land ownership is unclear, even though the people have already settled for at more than 50 years and regularly pay property tax.
		Environmental quality improvement	The existence of the people awareness to improve environmental quality in the village is shown by a good relationship between the people, which shows village identity that possess strong emotional relationship.
2	Place dependence	Nearby settlement with workplace	Kampong Tenggumung was established as Railroad Company employee settlement area, which is located near Sidotopo Station and directly adjacent with railways, makes it easier for the people to reach their workplace.
		Railways border as open space	As a densely populated area, this village is lack of open space. Because of that, railways are often used as open space, especially by the children.
		Road as private and public spaces dissolution	As a social creature, human requires a place or a special area to socialize. The effort to fulfil the need is shown by the facilitation of gathering area at the end alleyways as socialization area.

*3.2.2. Place attachment intensity level.* Based on the phenomena that exist in the study area, Kampong Tenggumung is strongly related to the relationship of individuals with their residential environment. This is the basis of efforts to identify the things that cause place attachments towards this area by conducting direct observation and interviews with the residents and the elder residents.

**Table 2.** Place attachment factor analysis.

Factors	Dimension realization	Analysis
<b>Period of stay and life experience as community,</b>	Territoriality	Village expansion is conducted over generations for more than 50 years towards the railways. However, a separating wall was built to separate the village from the railways. Meanwhile, the outer area of the village is bordered by a road, so the village can no longer develop (expand).
	Nearby settlement with workplace	The people in the village are initially the employees of Railroad Company at a nearby station. However, along with the development of this village, there are also people who perform various jobs such as food producer.
<b>The quality of settlement area and ownership</b>	Build environment quality improvement	There is an effort to improve environmental quality shown by the achievement of contest winning at city level.
	Railways border as open space	Railways border in several points of the village still utilized as public space.
	Sense of similarity on land ownership status	People are bonded through similarity, in this case the same condition on land ownership status makes kampong's people united to strive together
<b>Social network and community tradition</b>	Village tradition	There is a unique tradition in the village in form of cultural ritual.
	Similar social status	Similar economic status and livelihood
<b>Sense of safety in the settlement area</b>	Road as private and public spaces dissolution	Sense of safety in the settlement area shown by the utilization of road/alleyways as semi private space.
	Uncertainty	The status of the land is still unclear. This causes the village to be prone of eviction even though the people develop strong ownership because they pay property tax.

Based on Table 2, we can conclude that there are factors that form strong relationship between the people of Kampong Tenggumung and their settlement shown by strong kinship and social status, proximity to workplace, environmental quality improvement, and the sense of safety in their settlement area. However, there are also factors that weaken people involvement which are limited territorial and unclear land ownership status. Unclear land ownership status risk the people to eviction because they are

obligated to return the land to Railroad Company if needed and/or the Surabaya City government decide to realize widen Sidotopo Wetan Street (eastern border) planning. Because of that, the people of Kampong Tenggumung have developed place attachment but it was limited by the limiting factors. Based on that, we can conclude that the place attachment intensity level of the people in Kampong Tenggumung towards their settlement is categorized as **level 2 personalized attachment**; which is a situation where the people possesses unseparable memory of a place formed by their private experience.

#### 4. Conclusion

The people of Kampong Tenggumung have formed a settling culture shown by territoriality strengthening, the formation of village tradition, the dissolution of private and public spaces, and the utilization of railways border as part of the people lives. This settling culture produces settlement concepts of Kampong Tenggumung such as west-east building orientation, one house inhabited by 3 generations, road as interaction space, the dissolution of private-public spaces (semi private), and the relationship between people activities and railways border. These factors create a strong relationship between the people and their village. However, territorial limitation and the uncertain land ownership status weaken the people connection and limit place attachment intensity level of the people in Kampong Tenggumung at level 2, personalized attachment.

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## Place attachment of railroad settlement residents, case study: Kampong Tenggumung, Surabaya City

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**Abstract.** Place attachment refers to the formation of one's inner bond with a place. Kampong Tenggumung is a housing area located on the edge of Sidotopo Railroad and currently most of its inhabitants are the third descendants of the original owner. It indicates the formation of place attachment of Kampong's residents toward their environment. Therefore, the research aims to identify the place attachment of Tenggumung's community towards their residential environment. The research method is descriptive qualitative. The study was done by understanding the process of settling and the concept of housing in Kampong Tenggumung through interviews and visual observations of residential areas, supported by map data on regional development. Then, the level of place attachment of the community to their residence was determined. The results showed Tenggumung's community who have formed a particular concept of dwelling, namely the orientation of West-East buildings, a house inhabited for up to 3 generations, the road as a space for interaction, the merging of private-public (semi-private) areas, and the linked activities of residents and the rail border. This showed the level of place attachment of the community towards their environment has reached Level 2 Personalized Attachment.

### I. Introduction

According to Champion [1] and Haddad [2], settlement process is an interconnecting process between human and the environment, where residential activity can be said as people activity to rest in an area that allows them to orientate, identify them with the environment, where that place (locus) acts more than just a shelter. The awareness to resident in a certain area is a product of community identity which is based on local wisdom, in a form of culture which is influenced by various physical aspects. The existence of space is important human and would affect their decision in creating appropriate environment for every individual. Social tradition of a community in a physical environment setting will produce a holistic balance on its life and livelihood patterns, which relate with expectation, preference, experience, and satisfaction levels of the settlement process. This thing can finally produce emotional bond/connection between human and their residents according to their individual perception and cognition, which eventually will create a symbol of their identities (self-identity) [3-5].

Kampong Tenggumung have developed from Railroad Company employee settlement that provides nearby living areas, to an area that provides settlement for people who don't work for the Railroad Company. In the beginning, at early 1942, this settlement only occupied a small area in the eastern part of the railroad. At 1970, the settlement develops to the western area, and today, the area is already adjacent to the railroad tracks. As a settlement located in area owned by Railroad Company, the quality



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of life of the people tends to be at a relatively low level without certainty of ownership status on the land. However, this situation does not discourage the people to occupy the area, which slowly develop nearer to the railway along with the population increase. This phenomenon indicates that there is an emotional attachment from the people in this area with Kampong Tenggumung, known as place attachment.

### *1.1. Place attachment*

Place attachment refers to the formation of one's inner bond with a place, for example a residential environment. Theoretically one of the determinants of place attachment is residential satisfaction of a place [6]. The longer a person occupies a residential environment, the stronger the emotional ties they have to that environment. As stated in Purwanto [7], Purwanto and Harani [8], the relationship between humans and the environment is mutually compatible with their cognitive abilities and humans always try to obtain harmony with their environment. The relationship formed will then lead to an emotional bond between someone with a place or also called as place attachment. Place attachment is a symbolic relationship, formed by someone who culturally provides emotional understanding to a space as the basis of a person or a community in understanding their relationship with the environment. This relationship is more than just emotional, it also covers cultural beliefs and practices [9-11].

### *1.2. Place attachment dimensions and factors*

Place attachment is divided into two dimensions, namely place dependence, which is the value of a place for attributes associated with activities performed in it, an arrangement for action; a situation where the value and significance of a place is based on the attribute or resource setting/structuring or on that place [5,12,13]. This relationship is related to place attachment functioned to meet one's needs and goals. The second dimension is place identity which is an emotional bond to place as a form of self-identity. As stated by Cuba & Hummon in Anggraini et al. [12], place identity is defined as "an interpretation/self interpretation that uses the meaning of the environment to signify or put (personal) identity".

Based on stated that factors affecting place attachment are physical factors, social factors, cultural factors, individual factors, memories and experiences, satisfaction of the place, activities agents, and time factors. Therefore, from the theories stated above, it is safe to say to divided place attachment factors into: (1) time factors: period of stay and life experience; (2) social and cultural factors: social network, community tradition and activities; (3) physical and individual factors: settlement quality and residential ownership; (4) satisfactory of the place: A sense of safety toward their environment [3,5,13-15].

### *1.3. Place attachment intensity level*

The possible impact of the mentioned factors towards place attachment level can is that these factors can influence someone's perspective on place. Intensity of place attachment can be categorized into [16,17]:

- Level 1, human only knows and thinks about a certain place without having a strong personal feeling/memory.
- Level 2, personalized attachment; happens when human develop an inseparable memory of a place from their personal experience.
- Level 3, extention; happens when human develop emotional memory with a place or when a place psychologically involves them in any ways.
- Level 4, embodiment; happens when their self limit and the environment become blurry, or in some cases, identity and place transform into a single entity.

Regarding the place attachment concept, it is interesting to examine the reason of the people of Kampong Tenggumung to remain stayed in the area and the development of settlement concept for 3 generations. Based on that, the objective of this research is to examine place attachment of the people of Kampong Tenggumung on their settlement area.

## 2. Methods

The method utilized in this research is a descriptive qualitative method. The scope of the study area in this research is Kampong Tenggumung located in Sidotopo Wetan Sub District, Simokerto Kenjeran Regency, which is precisely at the right side of Sidotopo Wetan Street area. Primary data was obtained by conducting field observation, interview, and documentation. Interview was conducted on people figures that settle in the area for more than 20 years, the head of the area (RT/RW), and building owners inside the area. Sample collection technique is a snow ball sampling technique because it allows the researchers to obtain appropriate information according to the data requirement level [18]. Secondary data were obtained from google satellite imaging service and the area development planning from Surabaya Cipta Karya Public Works Department and Surabaya Bappeko. The variables used in this research are: (1) period of stay and life experience as a community, (2) Settlement quality and ownership, (3) social network and community tradition and activities, (4) the sense of security of settlement area. The utilized analysis techniques in this research were the behavior observation and character appraisal to identify the people behavior towards their environment by conducting observation, interview, and typical development pattern observation which illustrates an area [19]. To analyze place attachment level, a descriptive qualitative analysis technique [20] which divides data analysis stages into several category which are data collection, data reduction, data display, and conclusion or verification drawing.

## 3. Results and discussion

### 3.1. Settlement culture in Kampong Tenggumung

Settlement culture can be understood as a process, started from the early stages of residential area emergence that forms early settlement, to a point where a settlement with its own unique cultural identity is produced as a result of a relationship between the people and its settlement area.

Kampong Tenggumung has developed through 3 generations. The village is no longer a village for Railroad Company employees, but rather a village for retired Railroad Company employees and their families.

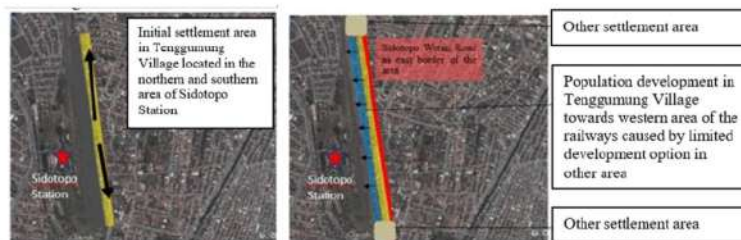


Figure 1. Initial settlement development in Kampong Tenggumung.

Even though it was different from the original initial settlement formation (as a settlement of Railroad Company employees because it was close to their workplace), the community's attachment to this village has been built and fostered, this was evident by the low level of migration from the village; some interview sources claimed to have migrated to other cities, such as Tulungagung and even Papua, but in the end they still returned to their homeland, which is Kampong Tenggumung. This indicates that a unique culture of settlements has been formed for the villagers, which is not found in other locations, so that it creates a feeling of longing to always return to stay in Kampong Tenggumung. The formation of settling culture formed over 3 generations is caused by:

3.1.1. *Territoriality strengthening as railroad company retirement village shown by:*

- Separator wall building,
- Village quality improvement efforts,
- Joint business,
- The establishment of special communities in the village.



**Figure 2.** Southern area of Kampong Tenggumung (1), northern area of Kampong Tenggumung (2), neighborhood quality improvement effort in Kampong Tenggumung in form of cleanliness contest participation (3).

3.1.2. *The formation of village tradition shown by the tribute and special ritual in village elder tomb (tomb of mbah Demang).* Every citizen intending to hold a special event should ask permissions by performing rituals in mbah Demang tomb.

3.1.3. *Road utilization as house extension.* The dissolution between private and public areas shows close relationship between the people, where they feel safe and not threatened by the environment even though the railways are not separated by fence.



**Figure 3.** Daily interaction of Kampong Tenggumung people with roadways as interaction space.

3.1.4. *Railroad border as part of the people in the village, is used as children playground, area to raise catfish or goats herding, etc.* Even so, some areas already separate themselves from the railways by building a separator wall based on safety reasons.

3.2. *Place attachment in Kampong Tenggumung*

3.2.1. *Place attachment dimension.* A person's emotional connection to a place, especially towards his neighborhood can result from the role of the local environment in meeting the basic needs of its inhabitants. Personal relationship with this place will form an emotion that has an impact on one's territoriality to a space. The emotional territoriality of the residents of Kampong Tenggumung towards their neighborhood forms a place identity or emotional attachment as a self-identity formation which is shown through table 1.

**Table 1.** Kampong Tenggumung people place attachment dimension.

No	Place Attachment Dimension	Realization	Analysis
1	Place identity	Territoriality	The choice of settlement location close to Sidotopo Station and the railways reinforces the identity of the residents, who are mostly Railroad Company retirees. The construction of a dividing wall by the residents between the village and the railways is intended to mark the formed territoriality.
		Similar social status	Most of the residents are third generation of original inhabitants. The people possess similar social statuses which are Railroad Company retiree families who also work as civil servants and entrepreneurs, the existence of similar businesses as side occupations from the production of peceel and Manado ice, and the formation of the outer edge of the village as a commercial corridor to market their products. The people practice village tradition and rituals for special events.
		Sense of similarity on land ownership status	The status of land ownership is unclear, even though the people have already settled for at more than 50 years and regularly pay property tax.
		Environmental quality improvement	The existence of the people awareness to improve environmental quality in the village is shown by a good relationship between the people, which shows village identity that possess strong emotional relationship.
2	Place dependence	Nearby settlement with workplace	Kampong Tenggumung was established as Railroad Company employee settlement area, which is located near Sidotopo Station and directly adjacent with railways, makes it easier for the people to reach their workplace.
		Railways border as open space	As a densely populated area, this village is lack of open space. Because of that, railways are often used as open space, especially by the children.
		Road as private and public spaces dissolution	As a social creature, human requires a place or a special area to socialize. The effort to fulfil the need is shown by the facilitation of gathering area at the end alleyways as socialization area.

*3.2.2. Place attachment intensity level.* Based on the phenomena that exist in the study area, Kampong Tenggumung is strongly related to the relationship of individuals with their residential environment. This is the basis of efforts to identify the things that cause place attachments towards this area by conducting direct observation and interviews with the residents and the elder residents.

**Table 2.** Place attachment factor analysis.

Factors	Dimension realization	Analysis
Period of stay and life experience as community,	Territoriality	Village expansion is conducted over generations for more than 50 years towards the railways. However, a separating wall was built to separate the village from the railways. Meanwhile, the outer area of the village is bordered by a road, so the village can no longer develop (expand).
	Nearby settlement with workplace	The people in the village are initially the employees of Railroad Company at a nearby station. However, along with the development of this village, there are also people who perform various jobs such as food producer.
The quality of settlement area and ownership	Build environment quality improvement	There is an effort to improve environmental quality shown by the achievement of contest winning at city level.
	Railways border as open space	Railways border in several points of the village still utilized as public space.
Social network and community tradition	Sense of similarity on land ownership status	People are bonded through similarity, in this case the same condition on land ownership status makes kampong's people united to strive together
	Village tradition	There is a unique tradition in the village in form of cultural ritual.
	Similar social status	Similar economic status and livelihood
Sense of safety in the settlement area	Road as private and public spaces dissolution	Sense of safety in the settlement area shown by the utilization of road/alleyways as semi private space.
	Uncertainty	The status of the land is still unclear. This causes the village to be prone of eviction even though the people develop strong ownership because they pay property tax.

Based on Table 2, we can conclude that there are factors that form strong relationship between the people of Kampong Tenggumung and their settlement shown by strong kinship and social status, proximity to workplace, environmental quality improvement, and the sense of safety in their settlement area. However, there are also factors that weaken people involvement which are limited territorial and unclear land ownership status. Unclear land ownership status risk the people to eviction because they are

obligated to return the land to Railroad Company if needed and/or the Surabaya City government decide to realize widen Sidotopo Wetan Street (eastern border) planning. Because of that, the people of Kampong Tenggumung have developed place attachment but it was limited by the limiting factors. Based on that, we can conclude that the place attachment intensity level of the people in Kampong Tenggumung towards their settlement is categorized as **level 2 personalized attachment**; which is a situation where the people possesses unseparable memory of a place formed by their private experience.

#### 4. Conclusion

The people of Kampong Tenggumung have formed a settling culture shown by territoriality strengthening, the formation of village tradition, the dissolution of private and public spaces, and the utilization of railways border as part of the people lives. This settling culture produces settlement concepts of Kampong Tenggumung such as west-east building orientation, one house inhabited by 3 generations, road as interaction space, the dissolution of private-public spaces (semi private), and the relationship between people activities and railways border. These factors create a strong relationship between the people and their village. However, territorial limitation and the uncertain land ownership status weaken the people connection and limit place attachment intensity level of the people in Kampong Tenggumung at level 2, personalized attachment.

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