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The impact of the participation of settlers to the formation of environment in Kampung Nelayan Belawan Medan

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Abstract. Every existence of community settlements that formed has related to social, culture, and economy that exists in that society. Participation is a process that involving human interaction towards each other, of these interactions creates activities that potentially form a new space (Hendriksen, et al., 2012). Problems in this research are related to community involvement in building residential, determining land used, building roads, and utilities in Kampung Nelayan Belawan Medan residential. The aim of this research is to find the community involvement of building residential, determining land used, building roads, and utilities in Kampung Nelayan Belawan Medan residential. In the process of collecting data, researchers conducted field observation and interviews. Then the researchers connect the theory and interpretation of data in determining the method of data analysis. The discovery of this research is that the formation of settlement spaces in the fishing village is inseparable from the participation in Kampung Nelayan Belawan Medan residential.

1. Introduction
Community settlements in principle have to mean in its formation related to social, cultural, economy that exists in society. Human life continues to grow will always make adjustments to the environment. In its adjustment, the community will face the problem of settlement land use, either individually or together with the purpose of accommodating every activity of the community to survive. May be communities encouraged to take part because of their own initiative, already in a state of urgency or encouragement from fellow villagers community and so on. The formed space that as community participation tends to occur because of include interacting human beings, the interaction creates a spatial function that affects human activity [1]. Population growth which naturally occurs in a residential area, causing the area to become more solid and unstructured if the construction cannot be controlled. Population growth on land with unclear ownership will also have an impact on the unplanned environment. The process of community involvement in development in an environment provides an opportunity for everyone to get involved in changing the environment as they wish [2], [3]. People who inhabit the village try to create a space that can give their lives for the move. Settlements will become functional for people's livelihoods if there is a match between settlement land and community activities related to celebrate the land they want.

Kampung Nelayan Belawan Medan is a settlement consisting of formal and informal settlements. This fishing village settlement stands on the seafront and has a linear pattern. The form this fishing village is inseparable from participating settlers to survive in the settlement. The issue of how the community engages build residential, how to land use, build road network and utilities to how their participation in development in Kampung Nelayan Belawan Medan become significant to be studied. The impact of community involvement in various aspects, of course, will produce new spaces...
according to their actions. Linkages the role of society and the available space will continue to develop because people are always changing and growing based on the social and economic realities they face in various periods where the settlement needs adjustment.

1.1. Approach to community participation
Community participation is a way of local approach. Community participation is made to build the environment as a place for community life to survive in its capture will be more successful if local communities and stakeholders can work together [4]. The need to involve all parties between the community and stakeholders through a participatory approach is essential to establish a better spatial arrangement in a settlement [5].

1.2 Spatial in residential neighborhoods grows unplanned
Space has an important role in facilitating the economic or social activities [6]. Informal settlements on the spaces happen due to new land use uncontrolled until the cause of the area looks seedy and unstructured. A spatial model developed to change the structure of a settlement to make the desired pattern is like having a shorter access road to work, easy access to places of service centers, and the give adequate public space [7]. Spatial in a settlement would happen if between the physical environment and the social logic of space (non-physical) such as the activity and function of land use mutually bound to each other forming a neighborhood woke up, which includes the settlement area (macro), residential blocks (mezzo), and home living (micro) that indirectly it formed the Organization of space, the circulation patterns (Street), a hierarchy of space and orientation of the space on the neighborhoods.

Two basic aspects of the creation of space in the settlement, i.e., 1) function spaces due to human activities; 2) physical form of development that runs from time to time. In General, a settlement would follow a sociocultural system about the pattern of activity of the settlers, to reach a settlement agreement the will of the people in the neighborhood.

1.3 Public participation in shaping spaces
The space created is the result of communication of the public involvement to the environmental residence as a means of fulfilling their needs [8]. Success in shaping an environment not only settlements rely on physical attributes, but also on the quality of its contents because both have a close relationship.

Community participation is not only seen as a way to improve the management of resources related to needs but indirectly the community participates in arranging available space [9]. Any society faces many problems in their environment which mean in the solution required interactions that produce the best course of action for the environment which is in the family [10]. Land use change is less attentive to the environmental norms in a settlement will lower the physical quality of the built environment [11]. Community involvement aims to improve the ability of each person to be involved, either directly or indirectly in an environmental setup process that can be done when the decision-making of any activities that occur in the community.

In essence, the problems faced by the settlers against their surroundings can be classified into two general issues which are: 1) the problems encountered about socioeconomic life: 2) problems encountered related to the physical conditions of the settlement area [12]. Community action in solving it is the determining factor of a spatial planning related to their wants and needs. This action will certainly result in a change in environmental conditions according to community activities. Each physical environment of the settlement will change according to human activities in the land used [13].

1.4 Public participation in building a model settlement
This form of public participation in building environment have different roles – different, [14] entries done community as an overview or want them against something. A model of community engagement is part of their efforts to check the development that will have an impact on changes in the activity of
their surroundings. Also, a way that used to control environmental change before an act of implemented.

Participation models based on practical experience and conceptual and empirical work in various fields are the results of collaboration organized to support the implementation of activities [15]. Increase public awareness of their region is important to complete the planning phase of action allowing the community cut problems and increase potential. The planned action by the community for increasing potential the problems of basic construction on a settlement, the awareness of the public is invited to get involved in building an environment for visualization will be visible from the action in development planning [16]. Planning, evaluation, decision-making, becomes a way for the community to be involved [17].

2. Method
Research on the site is in Kampung Nelayan Belawan Medan residential of Belawan Bahagia, and the environment is a village in the area that smallest 0.54 km2 or equal 2.47% of Medan Belawan District. This research data collection method using the method of interview. The interview process is done directly by researchers against the informant without the use of intermediaries to get more detailed information. The respondent's determination by dividing the sampling into some residential blocks. Things in the interview related to the problem of research which is being discussed. In addition to the interview study also use methods of observation, where researchers were conducting observations on the activity and character of neighborhoods that formed in Kampung Nelayan Belawan Medan residential. Data analysis performed by descriptive where it is made clear with the image mentioned above, other than that this analysis can also be used to find out the relationship between the theory and the required data.

3. Results and Discussion
The results of this research are discussed in 4 subsections.

3.1 community involvement in residential building
In an environment of the neighborhoods of the community have a role in creating the character of the settlement. The role is part of the community involvement in the building environment, in which a residential block (mezzo), residential (micro) and other functions. An environment that awakens this happens because of the physical environment and the social logic of space such as the effort to have a place to stay to survive (Figure 1).

![Figure 1. Settlement in Kampung Nelayan Belawan Medan consists of residential blocks and other functions.](image-url)
In the area of Kampung Nelayan, Belawan Medan residential several communities that settled not everything built occupancy themselves, because most of the community a direct heritage from home occupies their parents and rent. But not the least number of communities who built his residence in this part of the coast without the status of legal land ownership. Residential building activity in the coastal areas of resources supports neighborhood as well as stakeholders who participated gave permission so that occupancy can be woken up there (Figure 2). The community engagement process towards development in an environment of opportunity and the right of every person to get involved changing the environment they want [3]. Humans use the right to take part over the land which occupied the room. The community coming to this coastal hometown of Belawan took the opportunity when opportunity. The opportunity absent clear regulations related to the land they inhabit. The need for a living is a priority. The exit opportunities leave room for them to make use of the right though it is against the rules. But the government let the fact that dragged on.

![Caption: Building positions without legal ownership](image)

**Figure 2.** Buildings without legal ownership.

The low-income community in this village has a great intimacy between them; this state is visible from the physical buildings to each other doesn't even have the distance and walls that have only of 150 cm among the occupancy restrictions into one another (Figure 3). People tend to build occupancy due to the interaction of factors. In the behavior of the community will interact with fellow residents who have the same social status [1]. Need interaction with fellow human beings as the basis for building a house next to the other. The building next to other buildings gives a sense of security and comfort. Community fishing village on the site of the research on low incomes has carefulness in the designing of togetherness. The physical environment that is built by the community in this village contributes to physical form they saw the mass of the building.
3.2. **Community involvement in determining land used in settlements**

Community involvement in determining the function of the land settlement in the fishing village is an important part of the process of the formation of the physical environment. Community involvement is not just a residential building, but also to the affected land use due to the increasing necessities of life regarding economics for extending life. This is certainly a demanding society to be able to create his chances in land use vicinity of theirs. Harnessing the potential in its environment into a solution to economic problems. The society added a space on the remaining land of the footprint of their homes to meet the demands of the necessities of life (Figure 4). In interweaving, the life of the community will always be confronted on economic issues [12].

Figure 3. Community the walls are as delimiter between home.
Hasanuddin asserts the spaces on the building occupancy adjust against the efforts of building owners to solve economic problems. Space for building houses most of your lives in part by the community as a place to trade. The community is involved in setting social gathering the soil, as a pure commercial-and residential dwelling. Usually, the trading room is located on the front of the House. The utilize the front of the building as a place of trade, triggers other residents come to the venue not only for trade but also interact with fellow residents.

In settlements built-in the coastal areas, the occupancy is not only oriented to the sea but also tends to overlook the narrow alleys, so without realizing the narrow alleys have two functions, namely as access and home pages of residents who live there. This causes the area also became a social interaction space between them (Figure 5). In the Community citizen independently shall create spaces of interaction for them, which is a social society needs to exchange the latest information about events their surroundings [1]. The characteristics of the activity patterns of coastal communities have a desire to get together. It is characteristics of settlement land for the space of social interaction, which is aware of will make the people have settled emotional closeness.

Figure 4. The terrace used for selling.
Land use in the settlement is not only for economic activity and social interaction space, but people in Kampung Nelayan Belawan Medan also use the residential land for construction of religious facilities (Figure 6). The facilities as community needs for religious activities will affect the change of settler activity. In the atmosphere of settlements has a strong influence on changes in settler activity in an environment [13]. Such a situation will continue to occur because between land use is closely related to the behavior and mindset of the people, so they tend to have the same desire to use the land as something that also becomes their need. It will produce something that has character through the physical structure of the environment built in the settlement, as a result of land use and the behavior of the people who inhabit the settlement. The character of the settlement will also make their environment easy for other people's to recognize.

Figure 5. Narrow aisle make as home page and the space of interaction.
3.3. Community involvement in building a network of roads and utilities

The road network is something important to build so that the houses of the residents had access to in his work (picture 7). On the coastal area, the people who live there to build your network of roads leading to their homes so that it can access by foot or two-wheeled vehicle. However, construing the road network in Kampung Nelayan Belawan Medan residential does not involve the community in its construction. The settlement must have a road network structure so that the community's occupancy can be achieved because it already has access [7]. Specific areas of shelter that grow oriented towards the sea have a narrow road condition. The mass of the building stands very close and likely to come into contact with the front of the building (figure 7a). Community involvement is very high in building this road, though not in the development funds from private parties. The men, in particular, were directly involved a road that it was already Concrete. The road is built above the water, so the structure requires strength. The community built roads using cement materials, with the agreement with the residents to work together road with a road width of 100 cm. The society provides funding and the community which also built it together. The involves a fully this is a reality that is happening in the neighborhoods that form without government's role. The narrow road conditions describe the thinking of the community who enjoy the closeness. Even the road becomes area residents room to greet each other even interact. There are also on the part of the settlement area in the development community does not involve at all in either the development or the funding issue because the government acted in full in this regard (figure 7b).
In addition to the road network that serves as the connecting access to human activities. Electricity as a power source to turn on electronic goods also a very needed community on a settlement. The source of the electrical comes from the transformer State electricity company (PLN), which was then the voltage at the flush to homes of citizens, so in Kampung Nelayan Belawan Medan residential throughout the community has had the utility. The exit of electricity greatly assists citizens in support of their activities. In certain parts of the residential blocks of some community groups get involved give street lamps (Figure 8). Any society faces many problems in their environment mean in the solution required the interaction to produce the best action against the environment in the country [10].

Figure 7. The road network (a) Building roads by the community (b) Building roads by the government.
The physical quality of the built environment some of which involve the community to get involved in regulating its environment. Indirectly that involvement becomes a way to increase the ability of every person in a setup process for a better environment. Electricity development follows the layout of the residential areas of growth. Community involvement was fully in determining to find the mass of the building turns out to be they saw the reference in the electricity network. In addition to street lights in constructing clean water utilities and dirty water, these villagers involvement in the provision, not just for personal gain. The average, community water channel comes from the PDAM pipeline (Figure 9), but some residents still do not have clean water channels. Houses of residents who are in the coastal areas, in particular, must buy water for 3500 IDR per barrel to the community that already has water channels from the PDAM to meet the needs of clean water. As for the sewer water channel, residents make the septic tank as a final dumping place. The manufacture of dirty water become important channels for the people who are far away from the shore so as not to cause the smell, while the citizens who live on the coast tend to dispose of it directly into the sea through a pipe.
3.4. Form of community participation in building in Kampung Nelayan Belawan Medan

To build an environment based on the wishes of the local community's needs carries with requires involvement from the community to make it happen. Communities in establishing their residence in Kampung Nelayan Belawan Medan settlements do not do it yourself. Development involves society that profession as a Jobber or workers on the payroll every week, whether its construction is far from the coast or close to the sea. It also occurs in building a place to sell, but some people who place selling them without involving the rest of the land at mortgagee in the vicinity of their residences. Community involvement is not only in residential development and place of sale but also in religious facilities (Figure 10).

Figure 9. Water tank (PDAM).

Figure 10. The construction of mosques and residential.
The planned development will involve the community to take part increases the potential implementation of development [16]. Awareness to get involved in build environment in visualization will be visible from the action. Some form of public participation the fishing village on the site of this research by providing funding so that the construction can be carried out. The community needs to be involved directly than because of the referrals, but as a form of participation which is based on consciousness to matter to development that exists in the environment.

On the process of community development is not treated as an object, but also as a subject in development planning. Implement such development will certainly have an impact on the society’s activities resulting in form the physical environment in the fishing village of Medan Belawan.

In addition to construing community worship also build roads and utilities. Building roads involving the community only occur at the coast, where the society together, from raising funds to the construction, while the surroundings are far from coastal development the operations conducted by the City Government of Kampung Nelayan Belawan Medan. In establishing take advantage of clean water and dirty water every society does not engage itself on average, they involve experts in the field of installation of water pipes are clean and dirty water. Also in some residential communities blocks which together offer street lights by giving money that cited each time the street lights in their neighborhoods dying. It is in the community do to comfort as well as eliminating the fear to the user as it passes through the road at night because it has been the availability of information on the environment.

Garbage dumps in the environment provided by the local City Government. It’s placed near the tomb of the hero and the market (Figure 11). Provide cans to each House is carried out by the community itself. For the people who the garbage transported by officers, they must pay a mandatory monthly tuition money, but the community is not willing to pay their transport the garbage picking to landfills.

Caption:
- The position landfill garbage

![Image of landfill garbage](Figure 11)
The community in building its surroundings has different roles [14]. Settlements formed along the coast is from the community to get involved in their surroundings, from the shelter to the way they do to ease any illegal activities of the life they are living. More government does not take part due to existing the land built upon is not the ownership of community residents. Collaboration among residents has a role in complementing the facilities in Kampung Nelayan Belawan Medan. Residents often have problems related to how to equalize the view to manifest a decent settlement for they inhabit. But it is a potential in building settlements.

4. Conclusions
The formation environment in Kampung Nelayan Belawan Medan is inseparable from the participation of the settlers. The existing community engagement characteristics by the shape against the development in Kampung Nelayan Belawan Medan. The start of building occupancy determines to celebrate of the land, build the road network to the utility which is a community effort to support the process of living and satisfy the needs of the life the better. Consciously society will feel the impact of what they did with form the physical environment in Kampung Nelayan Belawan Medan. The community involvement will produce new spaces behavior. The interconnectedness of society and the space available will continue to shape the character of the growing environment a corresponding to the mindset, the needs and act the community to the environment. Human life will always change and growth as a problem they were in a settlement community in need of adjustment.

The community has limited costs to extend his life in this village are demanding society to create new space by making use of the land for the rest of the building footprint of their homes to earn more. The rest of formed between the neighborhood streets and buildings with each other into a space that most take advantage of the community to support the establishment of a good life from social interaction activities or economic.

Public participation in building roads connecting as access to a place, happened because everyone felt it was important to support the operations of the activity in the settlement. Forms of participation that occurred in the community in Kampung Nelayan Belawan Medan realized in the form of either a mutual action, to give funding to support the development in the neighborhood. The value of the positive impact of taking part the settlers against creating the environment in Kampung Nelayan Belawan Medan, that the people living there were able to receive each other's every thought and likened settlers in contributing to physical form they saw the mass of the building. The mass construction of the building will follow the function of the society's needs.

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