



# Spatial Structure of The Leisure Zone In The Girsang Sipangan Bolon District Urban Waterfront

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**Abstract.** Girsang Sipangan Bolon is one of the sub-districts under the administration of Simalungun Regency whose territory is partly directly adjacent to the shores of Lake Toba. The development concept of a waterfront culture for sustainable tourism is an importhing to do in this area. Tourism development that only relies on scenic beauty of the landscape will have difficult time to sustain for the future when there is degradation on environmental quality and boredom of visitors to the scenery presented. Identification of the spatial structure of Girsang Sipangan Bolon, morphology and circulation of the waterfront area and the typical type of development of the waterfront area are the objectives to be sought in this paper by using observation and geographic imaging of the area, whether are supports the concept of waterfront culture. Lack of open space to develop waterfront cultural activities, the morphology of the coastal area is not well planned where buildings with dense masses and heights block the view, and the area is more characterized by a recreational waterfront that relies more on the private sector. These characteristics are expected to provide more understanding and consideration for future development to emphasizing the concept of waterfront culture as an attraction and improving the morphology and circulation of the area that support sustainable waterfront tourism

**Keyword:** morfologi, spatial structure, waterfront culture

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## 1 Introduction

Improving the spatial structure of the waterfront area by optimizing the potential of the area is an important issue towards growth and sustainability into the present century [1], Waterfront areas must have and facilitate easy interaction and transportation in land use and planning in regional development [2]. Waterfront areas must provide attractions that are more attractive than just natural scenery to maintain the sustainability of the area as a liveable and sustainable place in the future. Ease of transportation, the scenic beauty of the natural landscape of the area and the existence of economic benefits to support life are basic considerations to make waterfront areas as settlements. These developments eventually form the economic, social and

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cultural activities that become the significant values of the area. Morphology of the area that related to the mass and height of buildings and transportation circulation patterns should support the sustainability of the waterfront area as an area that remains attractive and gives an attractive impression compared to other areas.

Girsang Sipangan Bolon is a sub-district that is directly adjacent to the shores of Lake Toba which makes this area has a lot of potential that can be developed into a waterfront tourist area. The concept of tourism development that is carried out by relying on the scenic beauty of the landscape is also carried out by other areas that are directly adjacent to the water's edge. What makes it different that is the willingness to develop waterfront tourism by presenting other attractions besides natural beauty. Culture-based waterfront tourism is one thing that can be done, because in this area there have been cultural activities carried out by the community from the past in the form of traditional festivals held on the coast with a series of traditional ceremonies to show gratitude for the benefits that the lake has given to the people around it. The morphology of the waterfront area, especially the mass and height of buildings that line the shoreline as well as the circulation pattern towards the waterfront, are also elements that must be considered so that the sustainability of tourism in the waterfront area can continue. The concept of waterfront area development is identified and recognized to be the material for developing better future modeling for the sustainability of waterfront tourism.

This paper intends to identify whether the spatial structure of Girsang Sipangan Bolon is support to the concept of waterfront culture as a value that will be developed for sustainable regional development, identification of morphology and regional circulation of recreational area and typical charecteristic the waterfront leisure zone area of Girsang Sipangan Bolon.

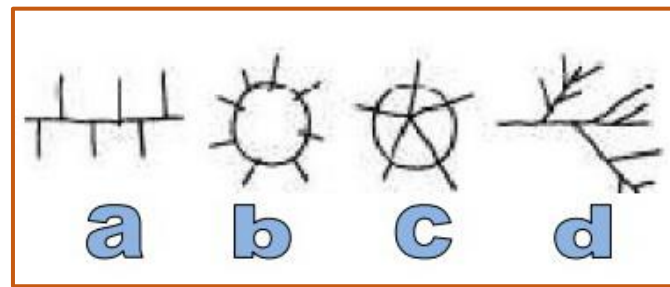
## **2 Literature Review**

The existence of water also provides ecological, economic, and social benefits to a community city [3], another definition is stated by Masrul that the waterfront area includes buildings or buildings activities that do not have to be directly on the water, but are visually, historically or physically bound to water as part of a wider "scheme" [4]. The shift and development of the function of the area which is wholly owned by the community is then developed as a center of activity, causing a decline in the quality of the waterfront area not only from the physical aspect but also from the social aspect of the community [5]. The rebuilding of the waterfront is then faced with the problem of fighting over waterfront space between institutions and society from a socio-economic and socio-political perspective encompassing the two main streams of opinion of waterfront researchers such as [6] [7] presenting the concept of using the beachfront area for a mix of recreational activities with economic benefits for society as a common development strategy used in contemporary cities. Changes in spatial and socio-economic arrangements in the waterfront area present new opportunities substantially improving the quality of the area.

Several cases of waterfront areas in the world were developed as a catalyst and development model with the potential for regional privileges. The goal of the regeneration paradigm waterfront reflects a regeneration strategy that has increased residential, recreational, tourism, commercial and public land ownership in some areas are the dominant features. This is stated by several waterfront researchers such as [6] [8]. The tourism that is the focus of attraction for the waterfront area is that which has a historical heritage and attractive environmental ecology while facilitating “vernacular” activities such as performing arts, concerts and community gatherings [9]. In his writings Timur states that there are three aspects Important factors that influence the formation of a waterfront area are the existence of space, time and occupants. This statement is supported by the research formulation compiled by Yang (2006) revealing social space and spatial space forms culture (culture content). In the context of the waterfront area, interactions that occur between spatial space, social space and the natural structure of the waterfront form the culture of the edge water which became known as waterfront culture [10].

Mentayani and Prayitno (2011) stated that historically the existence of the formation of Waterfront communities can be divided into 2 groups. First, people whose traditions are settled and develops in locations in waterfront areas with a waterfront culture base. Second, community groups that inhabit waterfront areas due to the urbanization process on the basis of considerations culture of habitation on limited land ('marginal' communities) [11]. In the process of developing waterfront areas, it is basically a very complex problem in an urban area, namely the existence of development difference between the public interest and the private interest of orientation of the development of public space functions into property functions. The development of public space is an oriented development to the welfare of the wider community while the development of property functions profit-oriented. Patterns and shapes this riverside settlement is also affected by geographic form and pattern of shape can be classified are morphology towards land, morphology towards water, selari morphology, water morphology, morphology estuary face and combined morphology [12]. The shape and layout of the building mass was initially related to the aspects of: physical benthic due to specific Setting (hue) which includes elevation, retreat (Set Back), building boundaries and coverage, then more broadly concerns also the appearance and configuration of the building, which is in addition to the height too includes color, building materials, textures, facades, scales, and styles.

According to Steiner and Butler (2007), one of the important elements of the waterfront concept is the promenade or esplanade in the form of a pavement where people walk or drive to enjoy the view of the water's edge [13]. The common morphological patterns in the waterfront area are linear, radial, concentric and branch as shown in the Figure 1 [14].

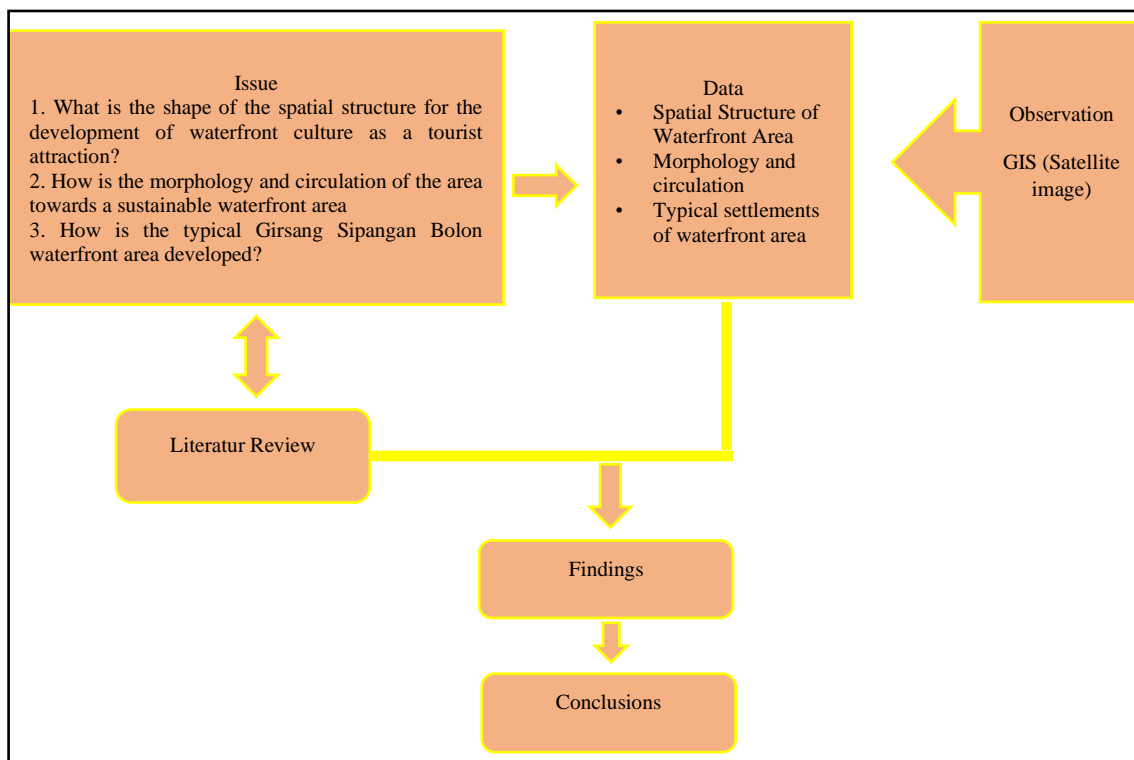


**Figure 1** Waterfront circulation form

Waterfront according to its function consists of cultural waterfront, environment waterfront, historical waterfront, mixed-use waterfront, recreational waterfront, residential waterfront, and working waterfront [15]. Where Cultural waterfront is defined as waterfront that accommodates activities culture, education, and science; who take advantage of the sea or lake as an object of culture and science with orienting regional development on facilities support cultural activities.

### 3 Method

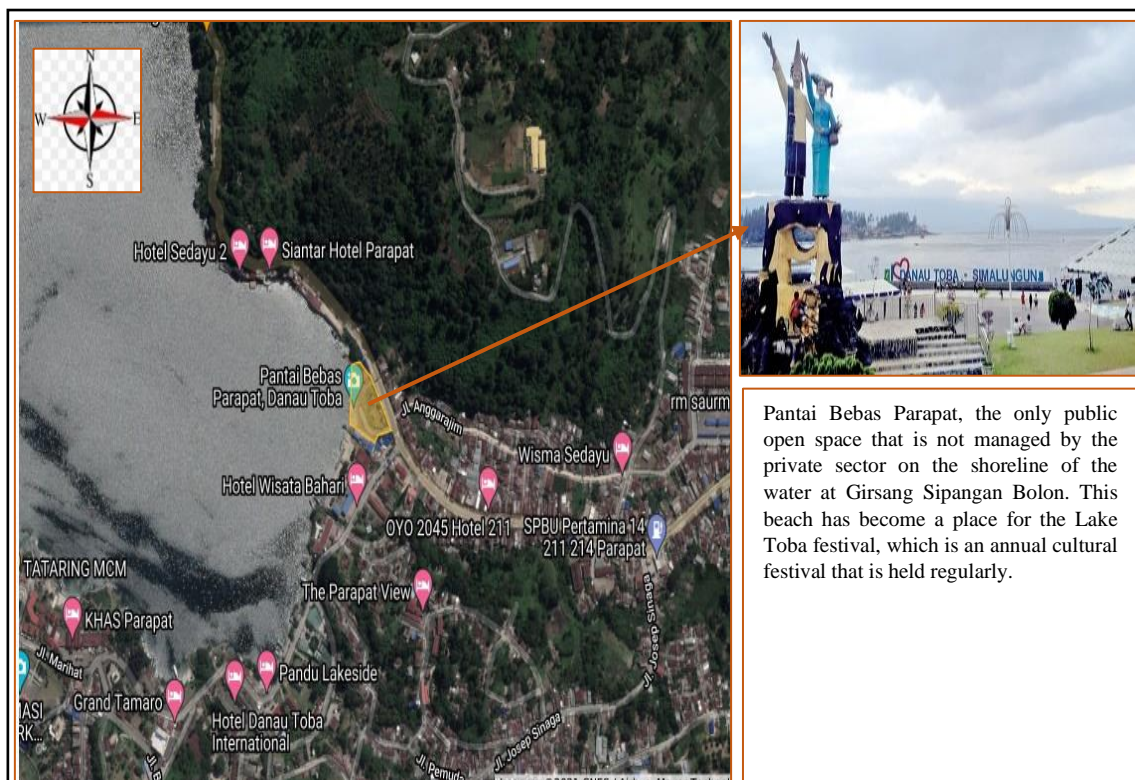
The research was conducted by observation and geographical imaging to obtain the spatial structure of the area and morphology related to the availability of public open space to improve cultural activities, the shape and mass of the building as well as the circulation of the area and characteristic of building that occupy the shoreline of Girsang sipangan Bolon Leisure zone waterfront area. The research method can be seen in the schematic Figure 2.



**Figure 2** Analysis Method

#### 4 Result and Discussion

The results of area observations and Geographical imaging show that the spatial structure in the area is formed by transportation routes and coastal grooves. The annual cultural event of the Lake Toba festival is carried out on the outskirts of the coast, which can still be seen at the Pantai Bebas Parapat. There is only one public open space location that can be accessed freely in the area for cultural activities to be held which are regional tourist values and attractions other than scenic beauty of natural landscape. Accessibility is quite good because it is located on the side of the main arterial road leading to the area. Other open spaces located on the beach are controlled by the private sector such as hotels, resorts and others that cannot be freely accessed by the public, as shown in the Figure 3.



Pantai Bebas Parapat, the only public open space that is not managed by the private sector on the shoreline of the water at Girsang Sipangan Bolon. This beach has become a place for the Lake Toba festival, which is an annual cultural festival that is held regularly.

**Figure 3** Public Open Space for Cultural events in Girsang Sipangan Bolon

The development of cultural activities is important to be developed to maintain the sustainability of the area so that it becomes a tourist destination in the future as an alternative to natural scenery attractions that can experience a decrease in attractiveness due to decreased environmental quality or boredom of visitors.

**Circulation morphology** The area tends to be linear where the buildings face the road that is parallel to the waterfront coastline. The building mass tends to be dense and the height is quite high, as can be seen in Figure 4.



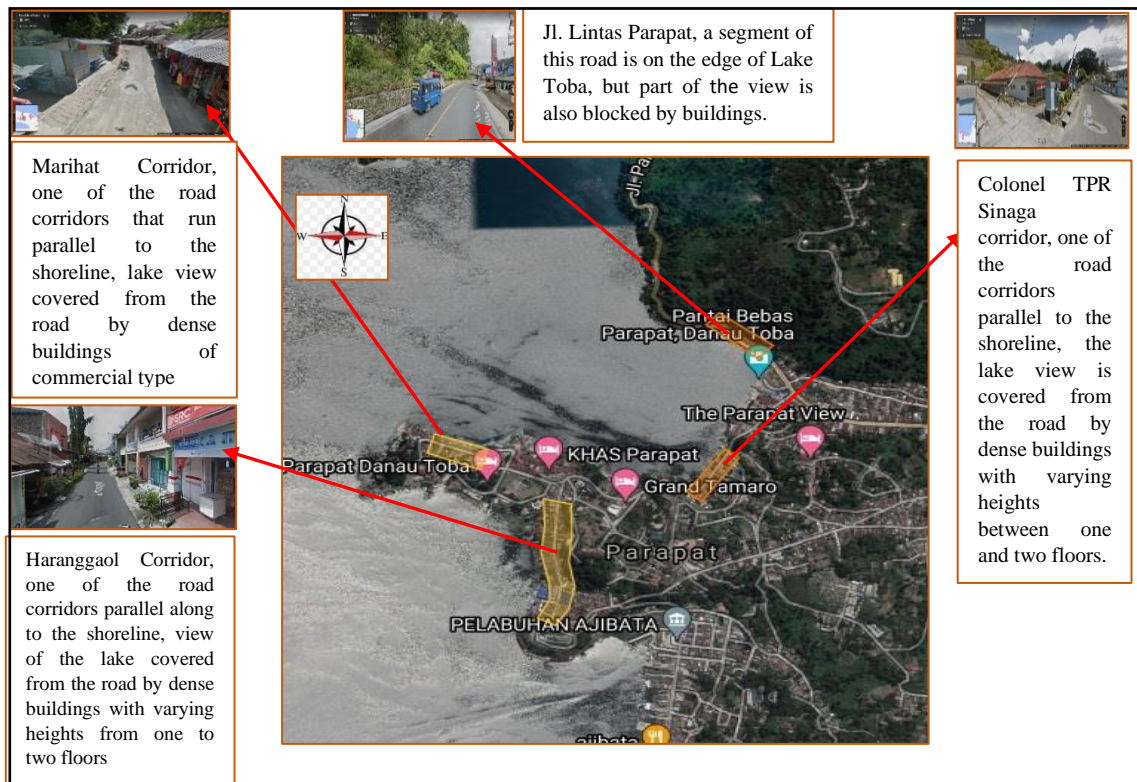


Figure 4 Morphology of buildings and circulation pattern

The coastal area is dominated by private sector ownership which functions as hotels, resorts and others. These buildings visually block the visuals towards the beach and coastal roads/promanades are not effective in showing the beauty of the coastal landscape, as shown in Figure 5.

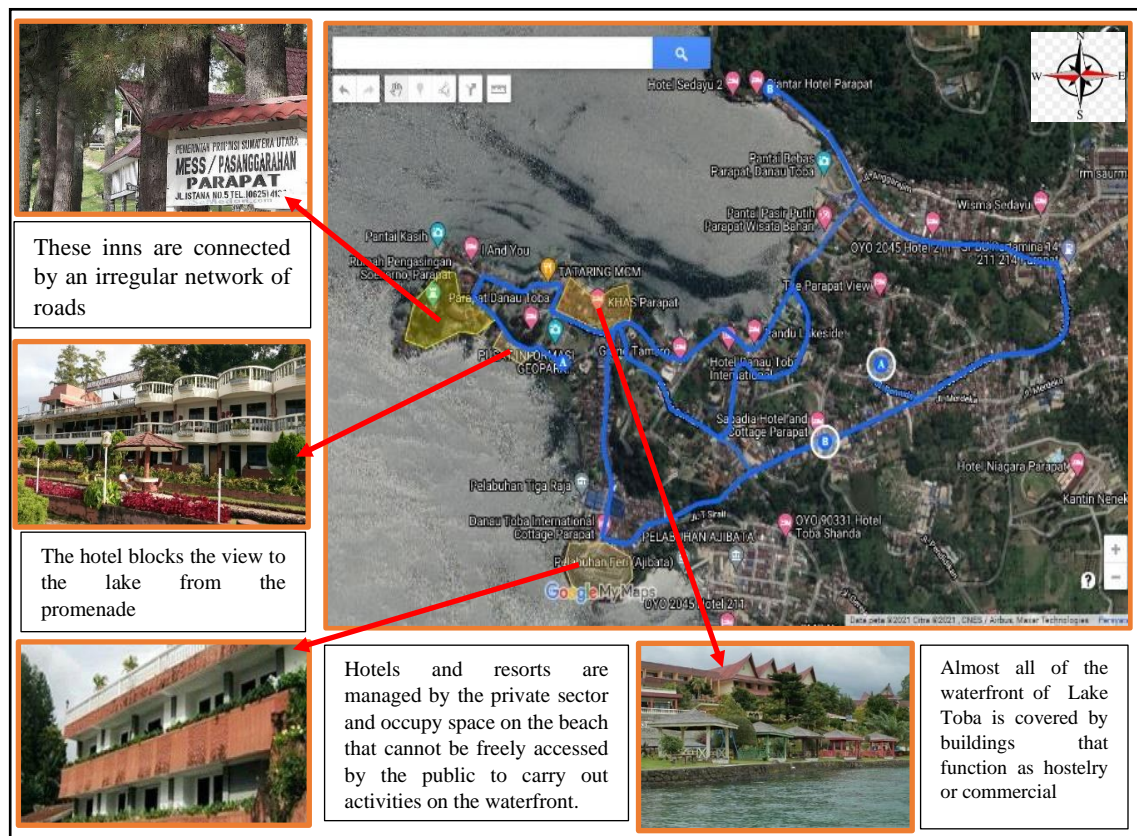


Figure 5 Typical of waterfront areas in Girsang Sipangan Bolon

## 5 Conclusion

The spatial structure formed by the coastline and road patterns that tend to be linear with the shoreline. The existence of open public spaces is still lacking both in terms of quantity and quality in the context of developing waterfront tourist areas that promote waterfront culture as the main attraction in the future to replace the attractiveness of landscapes for the sake of the sustainability of the area as a tourist destination.

**Morphology** The buildings and circulation of the area are not well organized because they hinder the visual of tourists towards the water's edge when walking through the promenade. The open waterfront spaces are controlled by the private sector which cannot be freely accessed by the public, reducing the attractiveness of the area.

The development of the area tends to be characterized by recreational waterfronts because development is directed along shoreline by maintaining open spaces on the coast for recreational purposes even though they are private, while the development of other features does not look strong.

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