



# Design of Sipiso-Piso resort Hotel with “Neo Vernacular Architecture Approach” In Karo

*Firman Eddy<sup>1\*</sup>, Yuni An Sari Nasution<sup>1</sup>*

<sup>1</sup>Architecture Department, Faculty of Engineering, Universitas Sumatera Utara, Medan, Indonesia

**Abstract.** Tourism is a very important sector in a country because it can improve the economy. Tourism is able to contribute greatly to the addition of foreign exchange that can be utilized for the development and prosperity of the people for developing countries like Indonesia. Tourism development in Karo Regency especially Sipiso-Piso Waterfall is very important to be developed because it has the potential that is not inferior to other tourist destination in Indonesia. The existing potential can be utilized optimally to reach the destination as the main tourist attractions so that the tourism sector becomes a source or supplier of strategic funds in supporting the development of the Karo Regency. The Hotel resort is the best solution in developing Sipiso-Piso Waterfall object. In order for tourism potential to develop and serve as a reliable product sold in the global market, this design can be done using Neo Vernacular Architecture approach to raise the local culture in Indonesia, especially the existing culture in Karo and Lake Toba.

**Keyword:** Ecotourism, hotel resort, neo vernacular, Sipiso-Piso waterfall.

## 1. Introduction

In development, Objects and tourist destinations are the main target or focus. They are the main cause of tourist motivation. Another reason is that in its development it needs to be focused in an integrated way. For example, when a tourist attraction (progress) wants to succeed, its development sites with the means and infrastructure associated with it, such as transportation, finance, and others. In comparison with other regions, Tanah Karo has a lot of potential tourist attraction to be managed and developed well. Strategy development and development in accordance with that provided by potential tourists. Of course, there are also natural attractions that have long known and managed such as Taman Simalem Resort, Sipiso-Piso Waterfall and other places Tanah Karo. In order for tourism potential to develop and can be used as a reliable product sold in the global market, should be issued by professionals in the field of tourism. Professionals interpreted that the workforce is a workforce that is able to bring and move the community.

---

\*Corresponding authorat: Department of Architecture, Faculty of Engineering, Universitas Sumatera Utara, JalanPerpustakaanGedung J07, Medan 20155, Indonesia

E-mail address: [rechvidimaz@yahoo.com](mailto:rechvidimaz@yahoo.com)

The design location lies in the natural tourist attraction of Sipiso-Piso Waterfall in Tongging Village, Kecamatan Kecamatan, Karo Regency, North Sumatra Province. Geographically, the location of Karo Regency is between 2°50' -3°19' North Latitude and 97°55' -98°38' East Longitude with an area of 2127.25 km<sup>2</sup> or 2.97% of the area of North Sumatra Province[1].

Brand District has an area of 125.51 m<sup>2</sup> with a population of 19655 people (Karo Regency site). The selected design area is around 3 hectares, is quite close to other attractions such as Lake Toba, Bukit Gundul/ Sipiso-Piso, and Sipiso-Piso Waterfall (Figure 1).



**Figure 1.** Location Map

(Source: [www.karokab.com](http://www.karokab.com) and Google Earth)

## 2. Literature Review

Neo-Vernacular architecture is one that develops in the Post Modern era, namely the flow of architecture that emerged in the mid-1960s. There are six streams that emerged in the Modern Post era according to Charles A. Jenck among others, Historicism, Straight Revivalism, Neo Vernacular, Contextualism, Metaphor and Post Modern Space. This modern has ten architectural characteristics as follows. Contains co-communicative elements that are local or popular, Reviving historic memories, Urban Context, Re-apply ornamentation techniques, Representational (representing all), Metaphoric (can mean other forms), Produced from participation, Reflecting general aspirations, Are plural, Eclectic.

From Charles Jencks's statement in his book "language of Post-Modern Architecture (1990)," it can be explained the characteristics of Neo-Vernacular Architecture as follows: a) Always use a rooftop. The roofs cover the level of the wall almost to the ground so that more roofs are likened to elements of shelter and greeting from the walls which are described as defense elements that symbolize hostility, b) Bricks (in this case a local construction element). The building is dominated by the use of Victorian 19<sup>th</sup>-century bricks which are cultures of western architecture

c) Restoring traditional forms that are environmentally friendly with more vertical proportions, d) Unity between interiors is open through modern elements with open spaces outside the building, e) Strong and contrasting colors [2].

Regarded as one of the finest resorts in the world, Nihi Sumba Island, formerly known as Nihiwatu, has a blissfully remote location on West Sumba and the feel of paradise found. Set within the diverse natural setting of 438 acres of tropical forest, rice terraces and grasslands on a private stretch of beautiful beach, Nihi Sumba Island provides utter scenic seclusion. All rooms are tucked amongst the trees, with huge windows and private terraces or balconies boasting expansive sea views. With 32 villas, all made from reclaimed wood by local craftsmen and furnished with unique regional artifacts, the accommodation here is a true Indonesian retreat (Figure 2).



**Figure 2.** Nihi Sumba Island  
(Source: Courtesy of Nihiwatu)

### 3. Methodology

Resort hotels are hotels that are built in tourist attractions as accommodation facilities from a recreational activity that is recreational and sets the target of visitors who are vacationers, have fun, spend leisure time, forget the boring daily work routine[3]. Interpreted through the transformation of the formation of the Siwaluh Jabu traditional house that will be implemented in the building of cottages but still using the Modern material. The decorative carvings in the Karo building will be implemented in the facade of the building and the interior of the building. Large column poles in the Karo Batak building are maintained so as not to eliminate the cultural elements in the building but still use modern materials such as concrete poles. The application of the stage building is maintained to reflect the local wisdom in the tropics, especially in the Karo highlands as well as appreciating the contours that exist on the site. The application of Neo Vernacular Architecture to the environment is the availability of flower gardens and fruit

gardens which are the custom of the Karo land farmers who are able to adapt to the physical conditions of Karo Regency which is an agrotourism area.

#### 4. Result and Discussion

The air on the site is very cool because the wind blows from all directions because the site is between 1200 - 1400 meters above sea level. From the direction of the Sipiso-Piso waterfall, the wind blows very cool accompanied by dew which adds to the more comfortable atmosphere to relax. But sometimes the Tongging area is an area prone to wind storms. So that the building uses a roof not because it does not allow using the roof with a slope so that the use of a sloping roof is only a symbol of the building. From various directions on the site provides a beautiful view with natural scenery of the waterfall on the northwest side, Gajah Bobok on the southwest side, on the east to southeast side stretching green hills Tongging-Silalahi, and on the south side extends the wide Lake Toba which adds to the beauty of natural scenery around the site.

The ornament used in the design of this resort hotel is Karo ornament, Sulaiman's footprint (Figure 3). The implementation of Tapak Sulaiman has a geometric pattern that forms a rectangle and on each side forms a knot and is feared by evil creatures, Sulaiman's footprint ornaments are believed to help the people of Karo avoid the threat of evil intentions, both real and unreal (Figure 4). This ornament has family and strength. The implementation of Cupping on the wall is made of wood in the form of a 4 x 30 cm board sheet located on the corners of the wall (Figure 5).

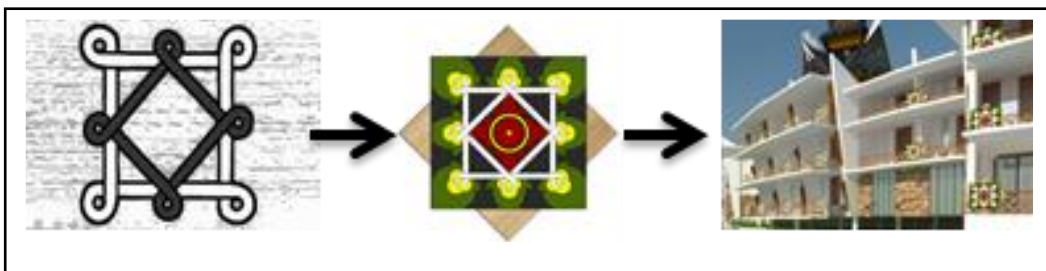


Figure 3. Ornament

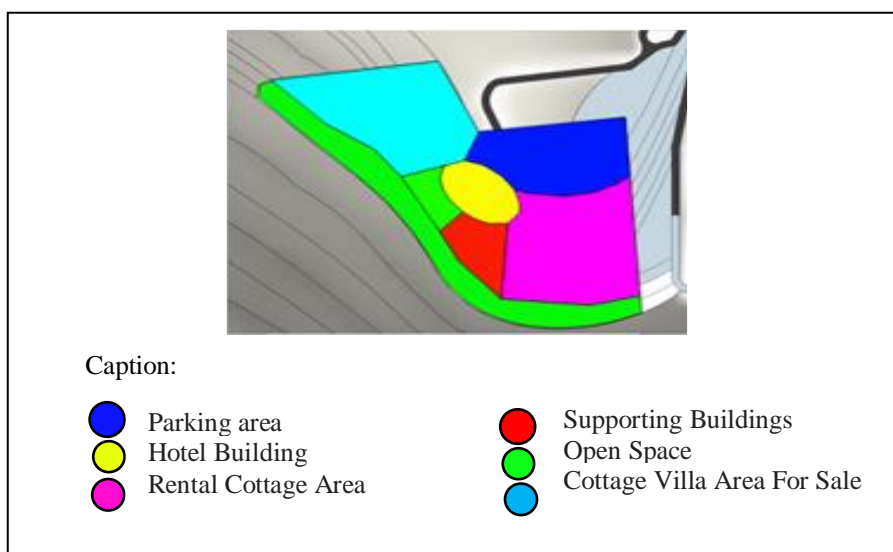


Figure 4. Facade Concept



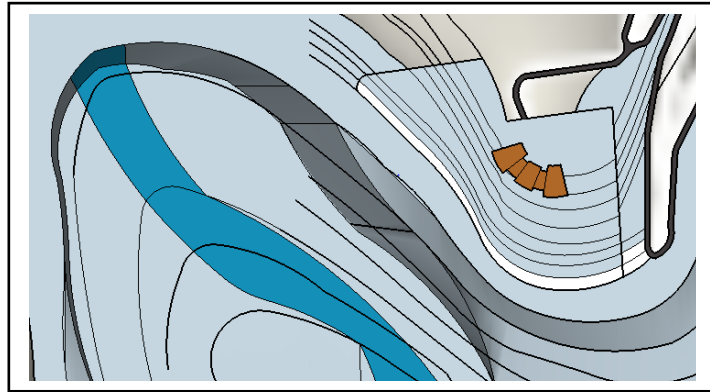
**Figure 5.** Facade Concept

The mass of buildings and facilities provided by resort hotels are grouped according to users such as (Figure 6). Special zones for staying guests and zones for visiting guests (public). The zone for guests visiting (public) is guests staying who are allowed to enter freely without paying to enjoy the facilities while guests who do not stay or just visit are charged if they enter to enjoy the facilities. Entertainment facilities in public zones such as labyrinth parks, flower gardens, fruit gardens, viewing towers, sports areas, flying fox to Sipiso-Piso Waterfall. Supporting facilities are a cafe and restaurant, retail souvenirs, small mosque, gazebo, and public bathroom. From the analysis view the orientation of the building's mass facing northwest, west, southwest, south, southeast, and east which gives a beautiful view of the natural landscape. For hotel buildings, the orientation of the building mass is made to view overlooking the Sipiso-Piso waterfall with Lake Toba so that the mass formation of the hotel forms a circle (Figure 7).



**Figure 6.**Site Zoning





**Figure 7.**Mass Orientation

In the design of resort hotels, it still maintains the existing contours as an aesthetic of outer space, thus providing a building skyline that adapts to the contour (Figure 8). Placement of buildings is made using pedestal foundations that are placed on the ground like the concept of a gray Javanese house building that still respects nature even though putting the building above the ground surface. The building is made partially partly not to maximize the area of water infiltration around the building. The application of the stage building is maintained to reflect the local wisdom in the tropics, especially in the Karo high lands and Lake Toba as well as a form of appreciating the contours that exist at the site (Figure 9). Large column poles in the Karo Batak building are maintained so as not to eliminate the cultural elements in the building but still use modern materials such as concrete poles. The application of the stage building is maintained to reflect the local wisdom in the tropics, especially in the Karo high lands as well as appreciating the contours that exist on the site. The application of Neo Vernacular Architecture to the environment is the availability of flower gardens and fruit gardens which are the custom of the Karo land farmers who are able to adapt to the physical conditions of Karo Regency which is an agrotourism area (Figure 10). From various directions on the site provides a beautiful view with natural scenery of the waterfall on the northwest side, Gajah Bobok on the southwest side, on the east to southeast side stretching green hills Tongging-Silalahi, and on the south side extends the wide Lake Toba which adds to the beauty of natural scenery around the site (Figure 11). The design of resort hotels using the approach of neo vernacular architecture in the building. The Neo Vernacular architecture theme approach is expected to match the location of the design and its surroundings, as well as to develop Indonesian culture, in particular reflecting the civilization of the local community around Karo and lake districts (Figure 12).



**Figure 8.**Front View of The Building



**Figure 9.**Building Perspektif



**Figure 10.**Entrance Hotel



**Figure 11.**Cafe at Under Ground



**Figure 12.**Salon and Spa

The reason waterfall Sipiso-Piso is one of the highest waterfall in Indonesia with a height of 120 meters. Karo Regency is one of the most popular tourist attractions for domestic and foreign tourists. The landscape of Sipiso-Piso waterfall shows the beauty of Karo Land. When viewed from the substation of view also can enjoy the beauty of the island of Samosir, Island in the middle of Lake Toba.

## **5. Conclusion**

Sipiso-Piso Resort Hotel Design applies the concept of Neo Vernacular architecture of Siwaluh Jabu traditional house and Sulaiman site ornament that is applied to the building facade. In the application of the design concept must still pay attention and adjust the theory and analysis of data at the design location. Resort hotels with the application of the right concepts will be the main attraction for tourists to visit the Berastagi tourism area. With lodging and recreation accommodation will increase the number of tourists who come to Berastagi. From the results of this design is expected to be able to attract tourists to visit Waterfall Sipiso-Piso attractions.



---

## **Acknowledgment**

This researchers have prepared this article and was partly funded by the Department of Architecture Universitas Sumatera Utara a contribution for the city government in planning and design to maintain existing local wisdom.

## **REFERENCES**

---

- [1] P. Tarigan, "Potensi Pariwisata Kabupaten Karo," Pemerintah Daerah Karo, 22 July 2008. [Online]. Available: <http://pariwisatakaro.blogspot.com>. [Accessed 5 January 2013].
- [2] C. Jencks, *The Language of Post-Modern Architecture*, Italia: Rizzoli; 6th edition, 1990.
- [3] E. Marlina, *Guide to Commercial Building Design*, Yogyakarta: C.V. Andi Offset, 2008.