



# Revitalization of Deli Tobacco Hospital to Become Edu Recreational Center in Medan City

Evryanti Elisabeth Rumahorbo\*<sup>1</sup> , Sri Gunana Sembiring<sup>1</sup> 

<sup>1</sup>Department of Architecture, Faculty Engineering, Universitas Sumatera Utara, 20155 Medan, Indonesia

\*Corresponding Author: [evryanti022@gmail.com](mailto:evryanti022@gmail.com)

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## ABSTRACT

The author's project of choice is an educational and leisure center housed in the former Deli Tobacco Hospital. Deli Tobacco General Hospital on Putri Hijau Street, Medan, North Sumatra. is a hospital that was founded in 1908 with the name Veregnide Deli Maatschapy Hospital. This hospital was founded to anticipate the high death rate of plantation workers at that time. The plantation workers are said to be attacked by diseases that are often found in tropical areas, such as beriberi and malaria. And now this building has been closed by PT Perkebunan Nusantara II since January 2012. Co-working spaces, libraries, museums, workshop areas, shops, restaurants, and cafés are all included in the design area's scope. Worship spaces, parks, and playground areas are included as supporting services. The author used tropical architecture in both indoor and outdoor areas when creating this project to address the issues that arose. In and of itself, tropical architecture considers the local climate. It is envisaged that by applying the idea of Tropical Architecture to the project, the author will be able to create architectural solutions that will make users of the Edu-recreational Center more comfortable. The way the area between the internal and outdoor spaces is arranged and laid out subsequently demonstrates how this tropical architecture is being applied.

**Keywords:** deli tobacco hospital, recreational center.



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## 1 Introduction

Currently, many abandoned buildings can be found in the city of Medan, the capital of North Sumatra. Deli Tobacco Hospital, located on Putri Hijau Street, Kesawan Village, Medan City is one of them. Currently, this hospital has not operated since 2011 and the Medan City Government has designated it as a Cultural Conservation. Although it is designated as a Cultural Conservation, the maintenance and preservation of the historical site is not carried out properly. This can be seen from its very poor condition.

Along with the rapid development of cities, human activities are increasingly diverse and increasing. Currently, many changes in work styles are seen in society. One of them is the people of Medan City, one of Indonesia's biggest cities which is the North Sumatra province's capital, which is undergoing fairly rapid development. In the past, most of the time was used to work in the office, whereas nowadays people prefer to work in flexible and comfortable places such as cafes or coffee shops.

To overcome these problems, it is necessary to design an Edu recreational Center in Medan City. Through this design, it is hoped that abandoned buildings in the city of Medan can be reused by people from various backgrounds with different backgrounds, characteristics, desires, and needs in one common area to carry out

their work comfortably, meet new people, and have recreational and educational activities supported by adequate facilities.

Rebuilding an area so that it may be used more extensively from the start is considered revitalization, according to Regulation Of The Minister Of Universal Work No: 18/ Prt/ Meter/ 2010 Concerning Guidelines For Revitalization Of Area [1]. The goal of revitalization is to bring life and vitality back to a region or section of a city that has declined or degraded. There are two types of revitalization: macro and micro. Enhancing an area's social, economic, and physical features are all part of the revitalization process. Rejuvenation strategies need to be able to identify and capitalize on environmental potential (history, significance, distinct location, and perception of the area) [2]. Enhancing the community's economy and bringing in the local culture are two more aspects of revitalization that should go hand in hand with enhancing the area's physical beauty. Community involvement is necessary to carry out revitalization. The individuals involved are not only those living in the area; rather, they are the community in its widest meaning. This involvement goes beyond merely supporting official features that call for community participation [3]. The Big Indonesian Dictionary (KBBI) defines revitalization as a procedure, approach, act, or state of revitalization [4]. This definition makes it clear that revitalization is a procedure or approach used to bring underperforming programs back to life [5].

Recreation is an emotional state that arises from a sense of contentment and well-being in each particular human [6]. Any situation, issue, event, or procedure that modifies a person's or a group's attitudes and behavior in an attempt to help them mature via a system of instruction and training is referred to as education [7]. The goal of education is to impart knowledge to individuals, groups, and society as a whole. Where, what order or give better information is the goal [8]. What draws visitors to a certain location is referred to as a tourist attraction, or just "tourist attraction" in more casual usage [9]. Everything fascinating and deserving of being seen and visited is referred to in the tourism industry as an attraction, or more widely, a tourist attraction [10]. Education according to The Big Indonesian Dictionary (KBBI) means learning. The origin of the word learning is from the basic word "student" which means to maintain and provide training (lessons, leadership, demands) regarding attitudes and intelligence. Recreation (Latin, recreate) is to renew, namely, activities carried out for physical and spiritual renewal. These activities are usually in the form of tourism excursions, sports, games, and hobbies on the weekends. Edu-recreational Center is a place for work, study, and recreation in the same area.

Another approach to construction design that aims to lessen damage to the environment and the natural world within the structure is called "green architecture." Green architecture emerged as a response to the growing awareness among consumers and architects of the restrictions imposed by nature in processing rapidly dwindling materials. The architecture also contributes to maximizing the potential of the land [11]. According to Lippsmeier (1980), tropical architecture is a building concept designed to solve problems that exist in the tropics. Air humidity and temperature guarantee comfort. Sunshine all year round, even when it rains is possible due to the tropical air. The level of humidity and ultraviolet rays throughout the day is quite high in a tropical climate [12]. Buildings that are good for the environment are the main emphasis of "green" architecture. Reducing the amount of natural resources used, energy conservation, creative and sustainable water use, and recyclable and non-polluting materials are just a few of the essential components [13]. An architectural concept that uses natural resources and energy sources effectively to create a healthy living space while fending off negative effects on the environment and humans [14].

## **2 Method**

The selection of the location refers to the RDTR of Medan Kota Sub-district, a location determined by the area's structural design, the designed location is a service center activity center area; trade/ business; and center of economic services and activities of provincial and city governments. Ideas regarding the planning and design of the Edu-Recreational Center are based on the history of the Deli Tobacco Hospital. The qualitative descriptive method in solving design problems became the method used in the project 'Revitalization of Deli Tobacco Hospital into an Edu-Recreational Center in the city of Medan with a Tropical Architecture Approach. Describing, explaining, and answering in more detail the problem as much as possible both individuals, groups or events to be studied becomes the purpose of qualitative descriptive research. Furthermore, data analysis was obtained qualitatively, namely by analyzing space requirements, structuring circulation and space, actors in

activities, etc. After that, it will be analyzed quantitatively by analyzing the amount of space and space capacity as well as an approach to the area and location.

### **3 Results and Discussion**

#### **3.1 Project Description**

The title of the Project is The Revitalization of Deli Tobacco Hospital to Become an Edu Recreational Center in Medan City with a Tropical Architecture Approach. The design location of the Edu Recreational Center is located on location Putri Hijau Street, Kesawan Village, West Medan subdistrict, Medan City, North Sumatra. The choice of this site is very appropriate because it is located in the city center where there are many public facilities. Through this design, it is hoped that abandoned buildings in the city of Medan can be reused by people from various backgrounds with different backgrounds, characteristics, desires, and needs in one common area to carry out their work comfortably, meet new people, and have recreational and educational activities supported by adequate facilities (Figure 1).



**Figure 1.** Project Location

**Source:** Google Earth [15].

#### **3.2 Mass Concept**

Based on the Article 80 of the Law of the Republic of Indonesia Number 11 of 2010 paragraphs 1 and 2 concerning revitalization, the potential revitalization of cultural heritage sites or cultural heritage areas takes into account social functions, spatial planning, and/or local wisdom, cultural landscapes based on studies. Revitalization is carried out by rearranging cultural values, spatial functions, and the strength of information regarding cultural heritage. The trade area is limited in area and location in the city center, revitalization efforts are carried out by combining the surrounding land parcels to build new buildings with different styles, sizes, and functions and connecting them. The basic concept is the main concept of revitalization derived from the theme of the Edu-recreational Center. Edu-recreational Center is one of the tourism activities that emphasizes aspects of learning and education. The Edu-recreational Center covers the following aspects; Education: educational, related to Education. Raise awareness of visitors and the public about the need for historical and cultural heritage. Recreation: exhilarating and fun, refreshing the load and mind. It is hoped that this merger can turn the heritage building of the Deli Tobacco Hospital into an Edu-recreational Center in the city of Medan based on an analysis that appears to have been neglected.

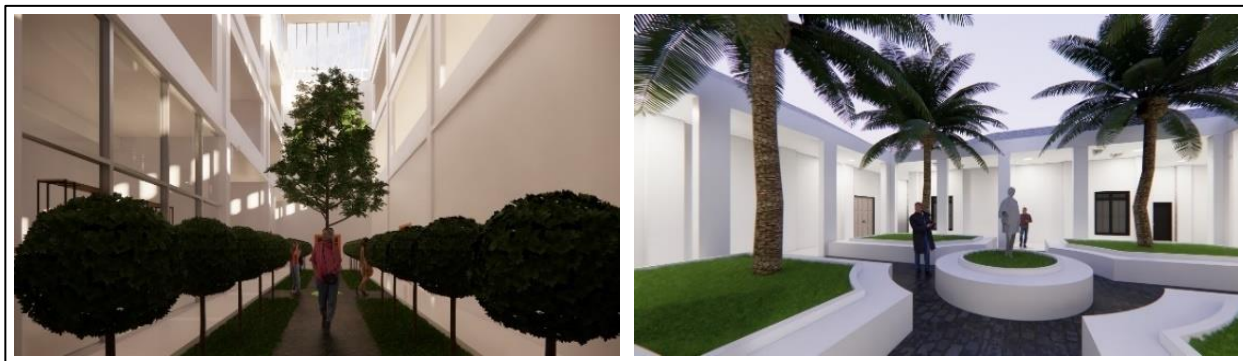
#### **3.3 Zoning Outdoor/Siteplan Design**

The design of the outdoor space/site from the Edu-Recreational Center in Medan City uses the concept of adapting to the Tropical Architecture theme. On the site can be found trees that serve as shade for visitors to keep feeling cool. Access to each building is also pedestrian-oriented, where vehicle access is quite

limited. Seeing the condition of the building that is no longer suitable for use, renovations will be carried out on the building with the use of better materials. The main building underwent a change in function but maintained the facade of the structure as a feature of the building and strengthened the historical value of the Museum. The building plan of course changes to suit the space requirements for the Museum (Figure 2). The green area in the middle of the building is also maintained but it needs renovation to form a better green area to support the function of the building (Figure 3).



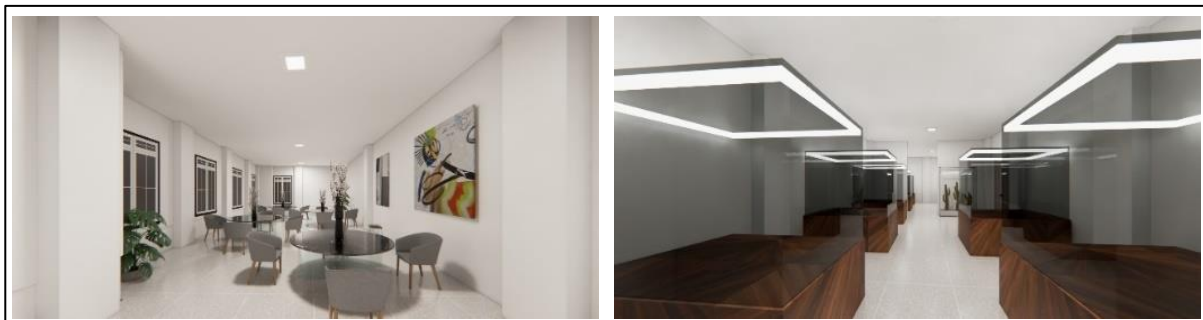
**Figure 2.** Zoning division for additional buildings on the site



**Figure 3.** Innercourt

### 3.4 Interior Layout Concept

Museum, using the deli tobacco general hospital's main building. In the main building of the Deli Tobacco Hospital, there are administration rooms, offices, poly ophthalmology rooms, dental clinics, pulmonary polyclinics, x-ray rooms, blood check rooms, operating rooms, etc. The museum contains the history of the area and also contains the history of airline deli companies in Medan. The airline deli company was chosen because this deli tobacco hospital was previously built by the company. The airline deli company was very developed and successful in its time, but there is no museum about the history of the company (Figure 4).



**Figure 4.** Museum

Area for co-working space consisting of work space available for rent per day for individuals, or for rent per month for companies. For individuals, the room is usually a large room with a sitting area to work, so that workers can get to know each other and allow collaboration and cooperation to occur. The library provides a collection of books for children and adults. The good interior atmosphere of the library will increase the interest in reading for visitors (Figure 5). A culinary area, in the form of a concept like a cafe, is synonymous with relaxation. The dining area is arranged in such a way that visitors can feel a pleasant experience, the ventilation in the building provides a calmer and more comfortable atmosphere (Figure 6).



**Figure 5.** Coworking Space



**Figure 6.** Cafe

The recreation area is located in an open space area on the site (Figure 7). The main part of the recreation area is the front and the part close to the deli river (Figure 8).



**Figure 7.** Lobby



**Figure 8.** Recreation Area

### **3.5 Mass Composition Design**

To support activities at the Edu Recreational Center, several buildings with new functions were added to the site. The building consists of a Recreational Building, Museum, Co-Working Space, Café, and a recreation area connected to the Deli River which is located at the rear of the site. Each building is made separately and is connected to the existing hallway but has been renovated so that visitors who come enjoy the circulation between rooms as an attraction (Figure 9).



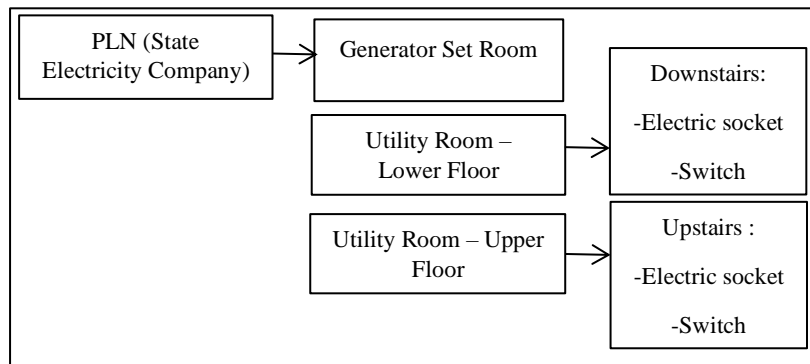
**Figure 9.** Mass Composition Design

### **3.6 Structure Concept**

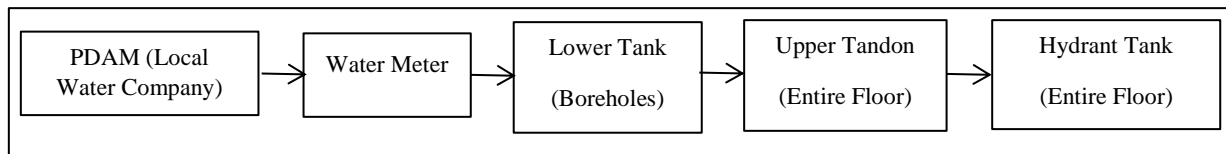
In the Deli Tobacco Hospital Revitalization project to become an Edu-recreational Center in Medan City, the structural/construction systems used are; Substructure, the character of the soil, and the character of the building will determine the foundation that will be used. The foundation that will be used is the foot foundation on the new building which is added to the site and maintains a good foundation on the old building. Upper structure, in the upper structure, used a tread foundation structure, columns, and beams.

### **3.7 System Utilities**

The main route for utility sources is placed in the middle/landscape, which will then be directly channeled through several pipes to buildings, in other words using a central utility system (Figure 10). Using an incinerator to destroy waste or waste that uses combustion. A wastewater treatment plant is provided to recycle non-ardous liquid waste which is then distributed to all green open spaces to irrigate plants and ponds in the area. The design of a utility system with a communal design for both waste and garbage before being dumped into the area's roil/water channel (Figure 11).



**Figure 10.** The Concept of Electrical System



**Figure 11.** The Concept of a Clean Water Supply System

#### 4 Conclusion

Tropical architecture is a building concept designed to solve problems in the tropics. The influence on the building is seen from the architectural design according to standards, user comfort in a tropical building is met. Not only that, but tropical architecture also observes the use of resistant materials in tropical climate conditions and can display the characteristics of local materials (tropical areas) that are more suitable and environmentally friendly. Revitalization with an adaptive reuse design approach based on the dominant elements that influence the entry of new buildings into the historical area are scale and height, color, shape composition, facade proportions, materials, and boundaries. So that educational and recreational activities will have a place and change the function of the deli tobacco hospital into an Edu-Recreational Center as a forum for national economic development and preserving Indonesian cultural heritage.

#### 5 Acknowledgment

This project is a study of the design of a design an Edu-recreational Center in Medan City. Through this design, it is hoped that abandoned buildings in the city of Medan can be reused by people from various backgrounds with different backgrounds, characteristics, desires, and needs in one common area to carry out their work comfortably, meet new people, and have recreational and educational activities supported by adequate facilities. The Department of Architecture, Faculty of Engineering, Universitas Sumatera Utara, and all those who helped with the study and design are acknowledged by the author.

#### 6 Conflict of Interest

The authors whose names are listed below certify that the manuscript does not have a conflict of interest.

Evryanti Elisabeth Rumahorbo

This statement is signed by all the authors to indicate agreement that the above information is true and correct (a photocopy of this form may be used if there are more than 10 authors):

Author's name (typed)

Author's signature

Evryanti Elisabeth Rumahorbo

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