

GUIDELINES FOR SPACE AWARENESS AFFECTING MANGROVE CONSERVATION

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ABSTRACT

Mangrove forest is an important and necessary econ system for the conservation of livings things and human beings. The objectives of this research were to study space area and architecture with its effects to the conservation of mangrove ecosystem, to understand the uniqueness of this mangrove ecosystem, and to investigate the natural activities in this area, and to examine the tourism of mangrove ecosystems. Qualitative research method was utilized to gain a deep understanding of mangrove ecosystems. The findings was reached by ways of collecting many documents, other important researches, previous studies, survey research, and an in-depth interview and analysis. The case of SamutSonkarm revealed the close connection between the environment and local people to live in harmony. There are many vital dimensions that need to be study more and to promote the understanding of the underlying importance of mangrove ecosystems.

Keywords: Guidelines, Spatial Approaches, Mangrove Forest Area

INTRODUCTION

The guidelines for space awareness affecting mangrove conservation: case of the mangrove conservation

center in Samut Songkhram Province was a study of developing tourism in the space and unique outstanding area for both short-term and long-term earnings.

The mangrove is the most important forest for both ecosystems (residents for humans, animals, and plants) and economy (tourism, aquaculture, and shrimp farming) (Department of Marine and Coastal Resources, 2022).

The literature review revealed that there was a study of the impact of sea level on the growth of the mangrove,

the background of natural sources and tourism, and the impact of hydrodynamic factors (sea wave, sea flow, and sea level). This study aimed to find the effect of natural factors on the mangrove, and the guidelines for space awareness affecting mangrove conservation for sustainability in the context of space design (Department of Marine and Coastal Resources, 2022). Consequently, this study aimed to build space awareness affecting mangrove conservation, the concept of aligning areas, architectural design consistency, and appropriate environment for the mangrove.

OBJECTIVE

1. To find the guidelines for space and architectural design for space awareness affecting mangrove conservation.
2. To learn about the mangrove ecosystems and coastal ecosystems as the specific characteristics of the area.
3. To provide an area for natural and environmental activities.
4. To provide a learning center for ecotourism and natural resource conservation in the mangrove.

A study of the guidelines for space awareness affecting mangrove conservation has been studied the related concept, theory, and literature comprising as follows;

1. The importance of the space, architecture, and forest of the community for sustainability.
2. The impact of the environment on humans by using a model.
3. The hydrodynamic factors;
 - 3.1 The mangrove is the energy and raw material source for household use.
 - 3.1.1 The species zonation in the mangrove
 - 3.2 The balance of the coastal ecosystems
4. The abstract behavior of the environment.
5. The principle of human-centered design.

RESULTS

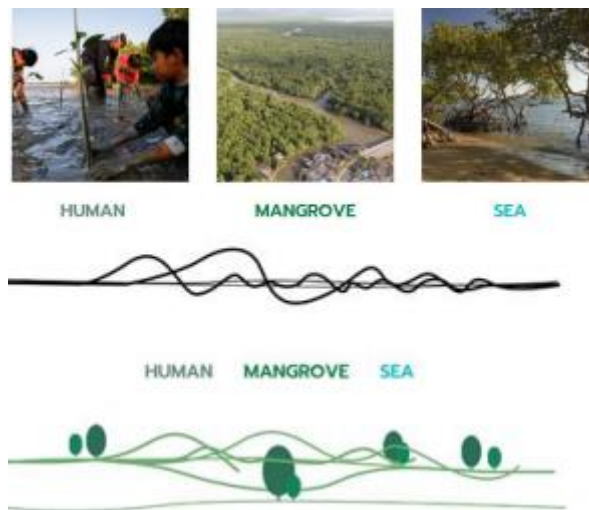
A study of the guidelines for space awareness affecting mangrove conservation revealed that the key factor was a lack of knowledge, understanding, and control of the architectural design for the conservative development to be consistent with the mangrove areas, and affected the nature and economy of the community. The findings have 3 created the guidelines for architectural design for mangrove conservation, development of consistency towards the mangrove, and enhancement of interdependence of humans and nature that built a good consciousness the mangrove conservation sustainably as follows;

1. Scope and definition of public space The public space is a space for the general public to access and participate in the ownership and management of roads and passageways, for example; sidewalks, cycle paths, parks, and recreational areas.

2. Elements of a good public space A good public space reflexes the success of public space management in responding to the user's requirement and benefits the surrounding areas. The literature review revealed that there were many elements and guidelines to apply for each area appropriately for the success of public space development (Project for Public Spaces, 2008).

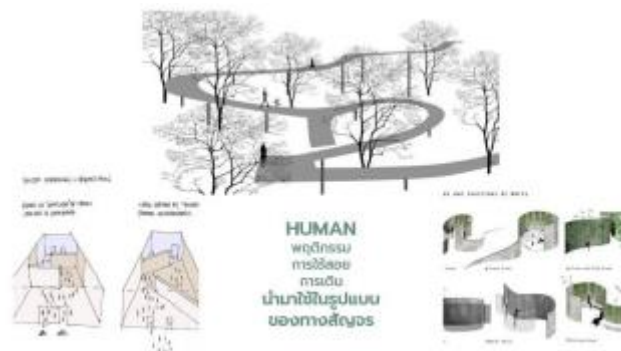
3. Concept of aligning a building or building The case of the mangrove conservation center in Samut Songkhram Province revealed that it should apply 3 surrounding contexts that affect the mangrove for telling a story of the space, nature, and use as shown in the below pictures;

Figure 1



4. Concept of a layout

Figure 2



Human – a design of the behavior of humans and nature, the use of space that affects the building and user, and the walking behavior of humans and a model of passageway and space for the maximum benefits.

Figure 3



Mangrove – a design of the mangrove area in a model of the outside space as the limited development for the conservation by infiltrating the building into the natural area completely.

Figure 4



Sea – a guideline for the building shape by selecting the context outstanding and uniqueness to build the relationship between humans and nature through the architectural product, considering the surrounding environmental condition and slope of the area, spreading out the building layout, sizing consistency for the context, and infiltrating the building into the natural area.

Figure 5



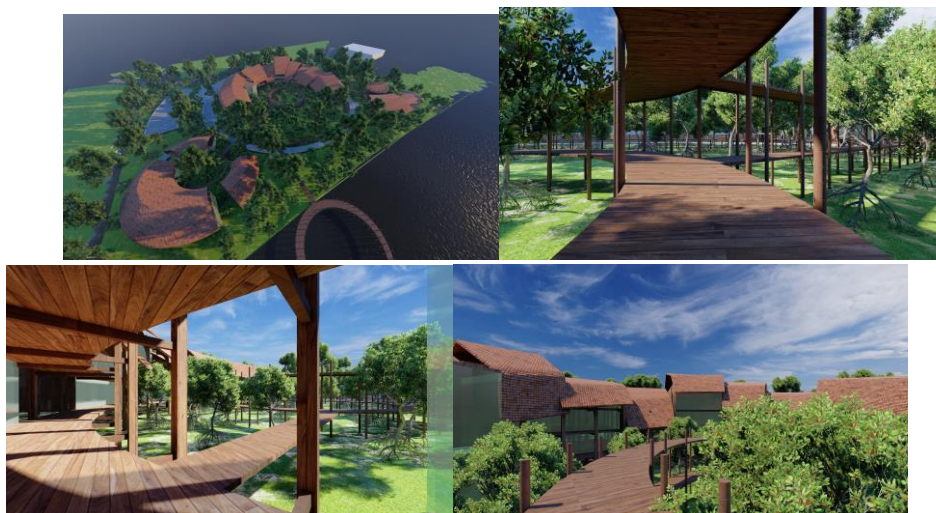
The exhibition area for wave learning by presenting the mangrove and natural environment infiltrating into the building to provide the experience of the real condition with intimacy and curiosity for the space awareness that affects both humans and nature.

Figure 6



The coexistence of humans and nature by harmonizing with nature and use of nature for the maximum benefits without ruining the ecosystems. The outside space of the building will build the interaction between humans and nature by touching and learning, for example; the balcony and basement are for the house cooling, animal protection, and providing activities. This enhancement of natural and environmental awareness as the architectural design and the building construction to escape or surround the tree or water.

Figure 7



The space should have mixed use for various activities in the public space to create a lively space and conserve the mangrove enchantment (Chanokporn, 2022).

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