

Thatched roof in Thailand

: an overview of current situation and issues

タイにおける茅葺の現状と課題

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1. Introduction

Thatched roof reflects indigenous roofing material and traditional building knowledge across the world, including that of Thailand. It is a living heritage that integrates ways of living, social context, resource management, environmental aspect. However, Thatched roof usage and existence are facing the challenge against social movement and technology which resulted in its significant diminishment. Progressive modernity and urbanization have changed lifestyles and consequently changed the characteristic of these local houses (Horayangkura, 2001). Thatched roof in Thailand, like many other traditional technologies, was replaced by a longer lasting, ready to use roofing materials.

Modern thatched roofs are now used in hospitality and agriculture. But thatched roof houses are rarely to find however, they are found within indigenous communities. Therefore, this research divided thatched roof into two categories, domestic thatched roof, and commercial thatched roof.

With the objective of understanding the current situation and usage of thatched roof in Thailand, this research aims to survey the process of producing thatched panels, study indigenous culture and relation to natural conservation form documents, collect online data of hotels, and analysis those data for findings.

2. Thatch material and thatching process

There are 4 types of natural thatching materials ('Grass thatch', 'Palm thatch', 'Fan palm thatch', and 'Leaf thatch'). Grass thatch are the most common due to the nature distribution of material that can be found across every region of Thailand. Grass thatched panels and Palm thatched panels have been commercial products for a very long time (HuangLao, 2019). On the contrary, Fan palm grow naturally on high peak of the mountain (Knowledge for Sustainable Highland Development, n.d.) which make it a restricted material to certain area. Therefore, fan palm thatched panel production is quite limited. Leaf thatch material is also grown at 100-600 meter above sea level. So, leaf thatch is mostly found in Northern Thailand.

3. Domestic Thatched roof

Domestic thatched roof refers to when thatched panels are self-produced for personal use which represent a situation where thatch knowledge is being pass on to the next generation of Thai people.

Karen indigenous as a case study, there are hotels that references to Karen culture which are 'Karen Eco Lodge' and 'Karen Hill Tribe Lodge' in Chiangmai. In comparison to that, there is Karen communities in Kaeng Krachan Forest Complex (KKFC) or Kaeng Krachan National Park in the west of Thailand. Traditional Karen houses usually have stilt structure, use partition to divide space, and have about 3-meter span (Udnoonsombat, 2018). Comparing both hotels to the characteristics of traditional Karen house, hotels buildings have different form and structure to that of the traditional. But both places use thatched roof.

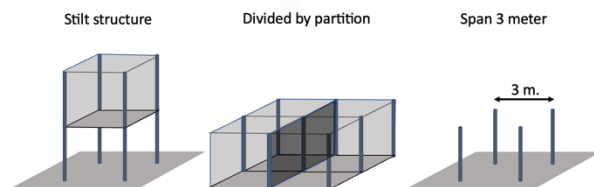


Figure 1 characteristic of traditional Karen house

Form and structure of houses in KKFC is similar to traditional Karen house. However, many houses had changed to modern roofing material due to economic problem and nature conservation laws people in the communities cannot use material within the National Park and cannot afford to buy thatched panels. The decreasing in traditional style housing combines with the campaign of promoting tourism in KKFC, they decided to build a 'cultural house' by the cooperation of the government and Chulalongkorn University. It was built to serve as an information center and showcase the wisdom and lifestyle of the villagers.

4. Commercial Thatched roof

Commercial thatch refers to thatch that has been produced and used for commercial objective. The data of

hotels are collected based on the registration of hotel businesses in Thailand then expand into the google map. Pictures of hotels are checked via hotel reservation websites (expedia.com, booking.com agoda.com) and official hotel website. Pictures of hotels are checked and used to analyze whether there is a usage of thatched roof or not. Then the data are used for usages analysis as well.

The overall percentage is 3.21%, thatch usage in Chiangmai is twice the number at 8.62%. Phuket's is slightly higher than the standard at 3.71%. And there are only 2 hotels out of over 2,500 hotels that use thatch in Bangkok.

Divided the data by provinces, thatch material in Chiangmai has the most variety of 4 types. There are only 2 hotels that use thatched roof in Bangkok, but both are palm thatch. Phuket found a usage of synthetic thatch and palm is dominant which contrast to the overall number.

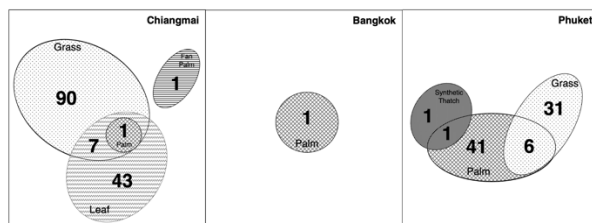


Figure 2 Thatched material usage and combination by province

The most prominent roof shape is gable at 36.68%, follow by hip roof at 18.69%, then cone roof at 11.42%, and half hip roof at 10.73%. Other roof shape found in this research are pyramid roof, shed roof, polygonal roof, flat roof, shed roof, lean to roof, dome roof, arched roof, barrel roof, and flying gable roof. Cone roof is ranked as high as 3rd place without the relation to the traditional Thai style.

5. Summary

Modern thatch exists in agriculture, rural area, within the indigenous communities, and also in commercial buildings. The commercial usage of thatch itself is also related to nature aspect as can be seen from hotels data in pristine nature. It also shows in the design aspect that the most common way of thatch usage is with the connection

to the context environment. Low-rise buildings, one story, and stilt structures are common. Open spaces are commonly used in correlation to functions like pavilion, restaurant, and bar. While enclosed space is common to guestroom function.

However, domestic thatch is on the different issue. Since domestic thatch is related to rural areas and indigenous communities, though slower are gravitating toward urbanization as well. More than that, indigenous communities are oppressed by nature conservation laws and regulations. Many cases, result in driving indigenous communities away from their culture that is close to nature. For instance, the case of Kaeng Krachan National Park where Karen communities had been violating and forced to move and live at other area than a place, they call home.

Hotels that use indigenous identity as a unique character and resource to drawn tourists and local indigenous settlement turned in to tourist attraction. Viewing from thatched roof and architectural perspective, they are very different. The latter results in strengthen traditional lifestyle. But the former lacks the connection to the traditional culture.

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Abstract: Thatched roof reflects indigenous roofing material and traditional building knowledge across the world, including that of Thailand. Due to changes in social fabric, way of lives, construction technology and manufactured produce building materials, thatched roof usage and existence are facing the challenge against social movement and technology which resulted in its significant diminishment. Modern thatched roofs are used wildly in hospitality and agriculture. While the use of thatched roof for housing can be found within the indigenous communities. This research aims to exploring current situation of thatched roof usage and craftsmanship in Thailand and analyze the usage of thatched roof.