



# **SPAFACON2021**

**Papers from the SEAMEO SPAFA International Conference on  
SOUTHEAST ASIAN ARCHAEOLOGY AND FINE ARTS**

**13 - 17 December 2021**

**Editor: Noel Hidalgo Tan**

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# INTRODUCTION

This volume contains the extended abstracts from the papers presented at the SEAMEO SPAFA International Conference on Southeast Asian Archaeology and Fine Arts, which was held online from 13 to 17 December 2021. Also known as the SPAFACON2021, this conference was organised online due to the pandemic. Despite the disruption brought about by Covid-19 to our in-person events, training programmes and field research, it is heartening to see that archaeology and cultural heritage has continued under new modes of communication and collaboration.

This fourth iteration of the SPAFACON is also scheduled a year earlier than our usual triennial cycle to commemorate the 50th anniversary of SEAMEO initiating a centre dedicated towards archaeology and the fine arts. Over the past year, SPAFA has also been highlighting this legacy of international cooperation and capacity-building by sharing our photographic archives on our social media.

I am delighted by the high level of enthusiasm and intellectual curiosity brought by the participants to the conference. During our call for papers we received close to 90 submissions, but owing to the pressures of time and the online format, we were only able to accept 34 papers for the conference. The variety of papers present here, although a small set compared with our usual proceedings, reflects the breadth of the centre's ambit – covering not just archaeology, but also performing arts, visual arts, museum studies, and other aspects of Southeast Asian cultural heritage.

I would like to thank all the participants, without whom this conference would not be possible in its present form, in particular, our Governing Board members who represent every country in Southeast Asia, and to the Ministry of Culture, Thailand and the Ministry of Education, Thailand for their long-standing support of SEAMEO SPAFA and its activities.



Mrs Somlak Charoenpot

Centre Director

SEAMEO SPAFA



# Thai Carpentry Knowledge Transmission: Development of Traditional Apprenticeships in a New Context

พัฒนาการทางรูปแบบการส่งต่อองค์ความรู้ในการสร้างอาคารไม้ไทยโบราณใน  
บริบทปัจจุบัน

10792/pqcnu8815a-22

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## Abstract

The shortage of highly skilled carpenters is an obstacle to the conservation of Thai wooden heritage. This article aims to explore the development of the Thai carpentry education system in order to analyse its nature and propose an effective method for conserving traditional knowledge. This research is based on interviews with relevant parties who work closely with traditional Thai wooden construction. Documentary research is also utilized to supplement data obtained from fieldwork. The findings suggest that apprenticeships make up the largest part of a carpenter's education. Although apprenticeships have transitioned from traditional to institutional, the essence of the education remains the same.

การวิจัยเรื่องพัฒนาการทางรูปแบบการส่งต่อองค์ความรู้ในการสร้างอาคารไม้ไทยโบราณในบริบทปัจจุบันเป็นการศึกษาโดยใช้ระเบียบวิธีวิจัยเชิงคุณภาพ มีวัตถุประสงค์ในการวิจัยคือศึกษาความเปลี่ยนแปลงของรูปแบบการศึกษาในการวิเคราะห์หัวใจสำคัญในการเรียนรู้เพื่อนำเสนอแนวทางในการรักษาองค์ความรู้งานไม้อย่างยั่งยืน ผลการวิจัยพบว่ารูปแบบการศึกษาพัฒนาจากการฝากตัวเป็นศิษย์สู่การเรียนรู้ในสถาบันศึกษาและทำงาน แต่หลักสำคัญในการเรียนรู้ยังอยู่ที่การฝึกฝนโดยตรงระหว่างทำงานเช่นเดิม

## Keywords

carpenter; Thai traditional carpentry; traditional knowledge; knowledge transmission; apprenticeship

ช่างไม้; อาคารไม้ไทยโบราณ; องค์ความรู้ดั้งเดิม; การส่งต่อองค์ความรู้; การฝึกหัดทักษะผ่านระบบศิษย์อาจารย์

## Introduction

Traditional Thai wooden architecture is one of the most distinguished examples of Thailand's national heritage. Some of these traditional structures, including the *Tamnak Daeng*<sup>1</sup> and *Ruen Tabkwan*<sup>2</sup>, are conserved by governmental agencies, while others are protected by private owners, for instance, people who inherited the buildings from their ancestors. Newly built traditional houses with adaptive space are still popular to some extent, despite the spread of modern concrete houses. One of the primary concerns in the conservation of traditional wooden structures is the shortage of highly skilled carpenters who can perform the work necessary for building and maintaining them. Because tacit knowledge transmission relies mainly on learning through hands-on experience with a master, time and patience are required to perfect one's skills, but few people these days have such devotion. Despite the need to develop a new generation of carpenters, the issue has not received sufficient critical attention. Most previous studies of Thai carpentry have focused on design, form, and usability, but little is known about knowledge transmission. Therefore, this study aims to fill in the gap by focusing on the development of traditional carpentry apprenticeships.

The research data in this study is drawn from two main sources: interviews with relevant parties who work closely with traditional Thai architecture (i.e., architects working for the Thai Ministry of Culture, master carpenters, construction companies specializing in traditional architecture) and documentary research. The central question in this study asks how traditional apprenticeships have developed or evolved in the modern setting. The findings should offer important insights into the essence of learning traditional carpentry that can be utilized to propose a method for conserving traditional knowledge. However, this study does not cover traditional woodworking for decorative purposes such as *Khrueang Yot*<sup>3</sup> and *Chofa Bai-raka*<sup>4</sup>. Rather, the scope of study is limited to traditional carpentry in the Rattanakosin period (1782–present), and throughout this paper the term “carpenter” refers to structural carpenters.

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1 The royal residential buildings in the palace built during the reign of King Rama I.

2 One of the wooden residential buildings of the Sanamchan palace designed by *Praya Wisawakam-sinprasit*, the renowned master artisan and architect during the reign of King Rama VI.

3 The pointy decorative ornament on the top of the roof, used exclusively for the king's buildings.

4 Decorative element for temple roofs and other decorative woodcarvings.

## Traditional Apprenticeship and the Learning Process

As in other traditional crafts, apprenticeships have long been the main learning format for traditional carpentry in Thailand. In general, apprentices ask a master to take them in and train them by allowing them to observe, imitate, and practice while working alongside the master. Sometimes, the master has to indulge the apprentice; given how much time the learning process requires, the apprentice is expected to repay the master by helping out with chores or other tasks (Artworks of Royal Artisans 2011, 13; N Saowanit 2017, personal communication, 22 June). In the past, techniques were usually passed down within the family, and certain families of artisans were famous for certain crafts. There are a few written records describing families that had mastered wood joinery for construction and the apprenticeship process they used. However, according to Pravet Limparungsri<sup>5</sup> (Sumran 2020) and an interview I conducted with Pramuk Banjerdasakun on 14 June 2018, the most important process is repetitive training on site.

It is clear that the construction process is crucial for knowledge transmission. Thus, because the kings considered it their mission to cultivate traditional arts and craft (Phraratchadamrat top nai kan poet rongrian pho chang 1913: 2498–2501; Thiphakorawong (Kham Bunnag) 1916), they ordered several construction, restoration, and repair projects to create opportunities for royal court artisans to polish their skills and pass on their knowledge to their apprentices during the early Rattanakosin period (1782–1868). Both Naruporn Saowanit<sup>6</sup> (N Saowanit 2017, personal communication, 22 June) and Phahonchai Premjai<sup>7</sup> (P Premjai 2017, personal communication, 28 June) similarly noted the central role that the construction process plays for local carpenters. They explained that when wood and other local materials were the main building materials for houses, people in the community with basic construction skills would help each other build their homes. In addition, people with specific skills (e.g., carpenters, painters, stucco artisans) would help build basic infrastructures such as temples and other religious buildings as well as the bridges in their neighbourhood, thereby encouraging knowledge sharing within the community (Artworks of Royal Artisans 2011: 13).

5 Thai architectural specialist who was an apprentice of Phra Phrombhichitr, one of the most respected Thai master craftsmen. Pravet was given the title National Artist in the Visual Arts.

6 Naruporn Saowanit is a professional architect in the Office of Architecture, Department of Fine Arts, Ministry of Culture who has been in charge of various traditional Thai architecture projects.

7 Phahonchai Premjai is an architect and a founder of PO-D Architects. Apart from modern architecture, he also specializes in vernacular architecture and is in charge of Isan Village at Jim Thompson Farm (an outdoor north-eastern vernacular architecture museum which gathers various characteristic local timber houses)

## Educational Institutes

Traditional crafts were included in the formal education curriculum for the first time during the reign of King Rama VI. The Poh-Chang School<sup>8</sup> was founded in 1913 to conserve traditional skills. Carpentry was originally a part of the curriculum but was later removed. There are also traditional Thai crafts and architecture programs offered in a fully hands-on learning format as Diploma/High Vocational formal education. However, most of these programs are not associated with traditional structural carpentry, focusing instead on decorative woodworking and modern carpentry. As for university-level architecture education, graduates of Chulalongkorn University who majored in traditional Thai architecture told me that although students in this program develop a comprehensive understanding of traditional Thai wood joints for construction, they would not be able to build a house themselves (N Saowanit 2017, personal communication, 22 June; S Wongsim 2019, personal communication, 5 Oct). In contrast, the School of Architecture at the Arsom Silp Institute of the Arts places a strong emphasis on hands-on learning. Apart from lectures, students are required to work at a construction site under the supervision of their professor. However, it is unclear whether graduates of this program are able to use traditional techniques.

## In-house Training

Saowanit told me that since the position of royal court artisan was dissolved by the government, the private sector has been responsible for the construction of royal buildings as well as national heritage repair and restoration projects, under the supervision of the Department of Fine Arts (N Saowanit 2017, personal communication, 22 June). There are a few construction companies specialized in traditional Thai architecture. P.V.C. Likitkarnsrang (hereafter, P.V.C.) is one such company and it is widely celebrated for its expertise<sup>9</sup>. As for traditional Thai home builders, Sor Rauycharoen is a well-known corporation with more than 40 years of experience<sup>10</sup>. The present study collected data on the in-house training programs of P.V.C. and Sor Rauycharoen to illuminate carpenter training in the present day because both parties have a good track record of developing new generations of carpenters, although they have different approaches.

8 Current name: Poh-Chang Academy of Arts, Rajamangala University of Technology Rattanakosin

9 P.V.C. Likitkarnsrang has been entrusted with a slew of royal projects as well as the repair and restoration of national treasures. For instance, Phramerumas (temporary construction for royal cremation ceremony) of royal family members and Thai pavilion overseas.

10 Sor Rauycharoen's outstanding projects are for example Thai traditional house at Suan Pakkard Palace and Thai pavillion in Tel Aviv.

Banjerdsakun, the master carpenter and founder of P.V.C, told me that he trains the apprentices himself. Some of the apprentices stay at the compound that includes his house and woodworking studio. There, they learn the basics before they start working at actual construction sites where they learn more advanced skills. He noted that although the hardship of training has been alleviated somewhat by modern electric tools, carpentry remains a tough skill to master, and he has to supervise his apprentices very closely. He also added that hands-on learning remains crucial because carpentry cannot be taught through words alone (P Banjerdsakun 2018, personal communication, 14 June).

In contrast to the in-house training provided by P.V.C. that resembles a traditional apprenticeship, Sor Rauycharoen has adopted a more adaptive approach based on the business background of Suk-ruai-charoen, the company's founder. She spent years teaching herself by observing carpenters while they were working on traditional Thai houses, and she even took measurements of houses she was interested in. Even though she could not build a house herself, she learned knowledge<sup>11</sup> such as structure, proportion, and assembly well enough to work with carpenters and set up a training system. The carpenters of Sor Rauycharoen are divided into four groups according to task: general carpenter, wood-panel carpenter, roof-ornament carpenter, and assembly carpenter. Young carpenters are trained by a senior carpenter who possesses a higher level of skill (Chaiwong 2020). Despite differences in the details of categorizing, the organization is similar to how traditional carpentry roles were divided by task in the Krom Chang Sip Moo (traditional arts department)<sup>12</sup>.

Despite their differences, both companies currently face the same problem: a lack of new carpenters. Even though trainees do not have to request the master to take them in and they are paid a salary, the training takes at least 5 years, so many trainees quit and look for other work rather than committing to perfecting their skills.

### **Preliminary Conclusions**

The objective of this study is to identify the development of traditional carpentry apprenticeships in order to grasp the core of the learning process. The findings to date have revealed that the format of learning has transitioned from living with one's master and working for compensation to two main approaches: learning in a formal school

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11 She also received an honorary degree in traditional Thai houses and sometimes gives lectures on this subject.

12 Carpentry in the Krom Chang Sip Moo department used to be divided into various categories such as demolition carpenter, roof ornament carpenter, and wood-processing carpenter.

or undergoing in-house training at a company. Although most institutional education programs provide a comprehensive understanding of Thai architecture, the lack of hands-on experience with skilled carpenters does not lead to mastery of the necessary skills. In contrast, in-house training follows a more traditional approach despite the shift in relationship from master and apprentice to employer and employee. Both of the companies examined in this study emphasize hands-on learning supervised by senior carpenters. This implies that the essence of the learning has not been affected by the format. Therefore, to conserve traditional carpentry techniques, it is important to highlight experiential learning and provide incentives for trainees to complete their studies.

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