A Synthesis of Traditional Knowledge Used in the Construction and Restoration of Thai Buddhist Ubosot in Bangkok and Its Surrounding Provinces

Sumphan Phormsit¹, Ying Keeratiburana¹ & Pairat Thidpad¹

¹ The Faculty of Cultural Science, Mahasarakham University, Khamriang Sub-District, Kantarawichai District, Maha Sarakham Province, Thailand

Abstract

This qualitative investigation synthesises the use of traditional knowledge in the architecture of Thai Buddhist temples. The focus of this paper is on the main worship hall of the temple, the ubosot. The research was carried out between August 2010 and March 2013 using data collection tools of interview, observation, focus group discussion and workshop. The findings show that current restoration projects neglect traditional knowledge of ubosot construction in favour of more modern techniques. Six problems with traditional knowledge in this field were identified: lack of inheritance, insufficient funds, poor budget management, skilled labour shortages, lack of historical records and no standardisation. This paper synthesises traditional knowledge of ubosot construction and outlines five steps for the successful application of traditional knowledge in the creation and restoration of ubosot: a) planning; b) creation and restoration using traditional methods and processes; c) evaluation of construction and restoration; d) correction and improvement; e) recording of results for use as a future guide and model. These results can be used as a model for future restoration projects in Bangkok and beyond.

Keywords: traditional knowledge; Thai architecture, ubosot, restoration, Thai temples

1. Introduction

Thai traditional knowledge is a valuable heritage that originates from ancestral exploitation of the surrounding environment to enhance everyday life. The role of traditional knowledge in modern Thai society is under threat from modernization and must be conserved for future generations to benefit from and enjoy (Jaroenrot, 2000). The Thai government has emphasized the importance of Thai traditional knowledge since the first economic development plan in 1961 but the urgency of active inheritance has become increasingly apparent in the last decade (Tangsaku, 2004).

A Thai Buddhist temple comprises a number of structures, the most important of which is the worship hall, or ubosot (Jiratasanakul, 2000). The ubosot is vital for maintaining the code of monastic discipline and the Buddhist beliefs of locals. It is still popular for community members to practice their faith in the ubosot on a weekly basis. For the most part, ubosot in Bangkok and its surrounding provinces are very similar and the only differences are in scale. This scale is determined by the number of resident monks who perform services, in turn affected by the amount of Buddhist idols housed within the temple.

Currently, the ubosot of Bangkok are in bad condition and are not adequately maintained by the government. There is a lack of community participation in restoration projects and the traditional knowledge used in the creation of the structures is being consigned to history. This knowledge is vital to successful and accurate restoration of the ubosot, yet has not been inherited in the community. Despite its importance, there has also been very little formal academic research on the traditional structure of the ubosot (Tongjiao, 2002). Given these problems, the research team began this investigation to examine the traditional knowledge used in restoration of Buddhist ubosot in Bangkok.

2. Methodology

This qualitative investigation was conducted between August 2010 and March 2013. The research had three aims: to detail the extent of traditional knowledge used in current restoration projects, to outline the problems with using
traditional knowledge in restoration and to synthesise the traditional knowledge used in creation of a Buddhist ubosot. The principal features of the ubosot that were considered during this investigation were the foundations, the main building and the roof. Data was collected from document study and field research. Tools used for the collection of data were: structured and non-structured interview, participant and non-participant observation, focus group discussion in groups of six to ten people and a workshop. There were four criteria for selection of the research area for this study. Firstly, the area must have a current or recently finished ubosot restoration project. Secondly, traditional knowledge must have been used during the restoration. Thirdly, the ubosot must be part of a public (not royal) temple. Finally, the temple must have been continually used for worship by local residents for over fifty years. After applying these four criteria, six temples were purposively selected for study:

- Wat Luang Paw Opasee, Bang Mot Sub-district, Thung Khru District, Bangkok
- Wat Chomnimit, Bang Khru Sub-district, Phra Pradaeng District, Samut Prakan Province
- Wat Sahakorn Kositaram, Khok Kam Sub-district, Mueang District, Samut Sakhon Province
- Wat Kiertipradit, Bang Pakok Sub-district, Rat Burana District, Bangkok
- Wat Krunai, Bang Khru Sub-district, Phra Pradaeng District, Samut Prakan Province
- Wat Bang Krajow, Bang Krajow Sub-district, Mueang District, Samut Sakhon Province

The research population included citizens in the fifty districts of Bangkok and the five surrounding provinces of Nakhon Pathom, Samut Sakhon, Samut Prakan, Pathum Thani and Nonthaburi. The purposive research sample of 110 individuals was divided into three groups: 15 key informants, 45 casual informants and 50 general informants.

Data was gathered and recorded according to the three aims of the research. All collected data was verified using a methodological triangulation technique (Chantachon, 2006). If there were any discrepancies found, further data was collected. Traditional knowledge used in the creation and restoration of the structures was analysed according to the part of the ubosot: foundation, building and roof. This data was then used to create a synthesis of traditional knowledge used in the creation of Thai Buddhist ubosot. Problems with the application of traditional knowledge were analysed separately and individually. The research results were presented at a workshop on Friday 8th June 2012 held at Wat Kiertipradit, Bang Pakok Sub-district, Rat Burana District, Bangkok. The findings of the research are here presented as a descriptive analysis.

3. Results

3.1 The Application of Traditional Knowledge in the Creation of Ubosot

The creation of the ubosot at Wat Luang Paw Opasee applied traditional knowledge in Garuda-patterned stucco on temple boundary markers, gables, pillars and archways. The ubosot is ornamented inside and outside with decorative screens (Figure 1). There are four interlocking gables at the front and back of the ubosot (Figure 2). The ceiling has been drilled above the principal Buddha image of the temple to attach four corner orb lights with a large drooping chandelier in the centre. The ceiling in the middle of the ubosot is similarly drilled but with two orb-lights outside three chandeliers. Throughout the temple are historical Buddhist drawings. The symbol of Wat Luang Paw Opasee is the large Thai letter (equivalent to O and representing ‘Opasee’) on the roof and represented in the architecture around the ubosot; ‘whoever sees it knows they are at Wat Luang Paw Opasee’ (Phrakhru Sutiyanopat, 2012, interview). ‘Modern studies have been used to adapt the architecture and make the temple stronger, such as by driving in pillar piles by using a crane rather than by hand’ (Chaloempon Meesilarat, interview, 2012).

Figure 1. Decorative screens within the ubosot at Wat Luang Paw Opasee
The structure of Wat Chomnimit has been adapted to modern society by including three levels. The first level is used to park vehicles, the second level is used as multipurpose space and the third level is the ubosot proper. ‘Although the construction of three levels is still just one building, it allows three uses for the temple’ (Phrakhru Sukom Seenkun, 2011, Interview). The roof is a pointed spire chedi and is filled with Buddha relics. There are four gables at each of the front corners of the ubosot. There are fire escape stairways from each level of the temple. The roof structure and handrails are all made from stainless steel (Figure 3). ‘The creation and design depends on the needs of the temple. Appropriate use and benefit of space should be determined by the government to ensure strength and beauty’ (Angsumalin Jutajindaket, 2012, Interview).

Traditional knowledge was used in the creation of Wat Sahakorn Kositaram to create stairs from the earth. The stairs provide access to the ubosot and are 5.6 metres wide, the same width as the front and back of the ubosot. There are chaw fa, bairaka and hang hong (elaborately curved roof decorations) on the roof. These decorations are designed and created by local artisans using block or mosaic mirrors (Figure 4). There are three layers of roof because the ubosot is 33 metres long. The temple was made so long because there are ‘many monks and even more family members who come to worship within’ (Phrakhru Sakorn Thammakosit, 2012, interview).
Traditional knowledge was used to merge the old and new foundations of Wat Kiertipradit. Bricks have been used to link the old and new walls (Figure 5). Bali decorations have been used on the roof and a Naga head has been used instead of a chaw fa and hang hong. These changes ‘have increased the beauty and image of the temple’ (Phra Attikarnsutee Suntaro, 2012, interview). The temple interior has been restored by local artisans (Figure 6).

The ubosot of Wat Krunai is decorated with ceramic tiles on the walls and ceiling rather than paint. Paint is reserved for the doors, windows and their frames, both inside and out. Lighting has been fitted inside the ubosot (Figure 7).
Traditional knowledge has been applied to renovate the roof of Wat Bang Krajow so that the materials used are as similar to the original as possible. Local artisans were used to replicate the original wooden chaw fa, bairaka and hang hong. New coloured mirrors and paint were used to decorate the interior and exterior, while the eight sema stones and front and back porch pillars were each painted. ‘The temple is hundreds of years old and very dilapidated. However, we must renovate the areas that the monks use most first’ (Phrakhru Baitikasutin Sutinno, 2012, interview).

There are six problems with application of traditional knowledge in the creation and restoration of ubosot in Bangkok:

- There is no transmission of traditional building knowledge from one generation to the next.
- There are no standards for the construction of ubosot. Temple management employs external contractors to take full responsibility for construction and restoration, which reduces expression of the local community in the ubosot structure.
- There is a shortage of skilled labourers with experience in construction and renovation of ubosot.
- Budgets are managed incorrectly, causing construction and renovation projects to be delayed and abandoned.
- Historical records of ubosot creation and renovation are incomplete.
- There are insufficient funds to continuously repair and renovate ubosot.

3.2 A Synthesis of Traditional Knowledge Used in Ubosot Creation and Restoration

Traditionally, ubosot are single-level structures with high foundations. The weight of the building is supported by the pillars, beams and walls. Corbels are used to help support the roof. The ubosot faces east and usually has a three-tiered roof with four breaks. In the final break, an eaves jut out to meet the supporting porch pillars. The porch extends around the entire ubosot and it is possible to walk around the building on the porch. The gable ends are decorated with chaw fa, bairaka and hang hong. The door and window frames are traditionally decorated with stucco in a monthop style. There are two doors at the front entrance to the ubosot and two at the rear. There are five windows in monthop style on each side of the ubosot, placed between the pillars. Within the ubosot is a lobby with a replica image of Phra Buddha Chinnarat and various historical Buddhist paintings and murals. Outside the ubosot is a kampaeng kaew or ‘mirror wall’ and sema stones at each of the eight compass points to define the ubosot area. There are five steps for the successful application of traditional knowledge in the creation and restoration of ubosot: a) planning; b) creation and restoration using traditional methods and processes; c) evaluation of construction and restoration; d) correction and improvement; e) recording of results for use as a future guide and model.

4. Discussion

Apichai Pantasen argued that community culture is an expression of ancestral belief that has been inherited from generation to generation (Pantasen, 1998). The temple is the most important structure of that expression, in particular the ked putthawat or holy area of which the ubosot is a component (Jiramanee, 1981). If the temple management hire external constructors to complete renovations to the ubosot, the local culture will not be retained and external influences will be visible in the architecture, as consistent with the cultural diffusion theory.
of Franz Boas (Boas, 1891). Indeed, local communities benefit most from a specifically designed local culture (Yodmanee, 1994). Therefore, in order to successfully restore ubosot in Bangkok, a basic concept of traditional knowledge is necessary.

Six problems were found with the application of traditional knowledge in the construction and restoration of ubosot. These six problems are all influenced by five primary factors. Firstly, the funding is limited by community and government donations. Secondly, material quality is limited by the budget. Thirdly, many companies employ migrant labourers, who have little understanding and experience of the Thai ubosot. Fourthly, labour costs must be paid up front and are limited by the budget. Finally, waste and debris from reconstruction is not managed correctly and affects the surrounding temple area and the local community. It is clear that there are not enough structures in place to manage the restoration programs and their relationship with the community (Radcliffe-Brown, 1940). The particular structure that would help the success of conservation projects is a plan or model, which this research aims to provide. Julian Steward identified the need for culture to adapt to its surroundings and this is something that temples must do to preserve the application of traditional knowledge in ubosot restoration (Steward, 1990).

The following suggestions can be made for future application of traditional knowledge in the restoration and construction of ubosot in Bangkok and its surrounding provinces:

- Government ministries and local institutions, especially the ministry of culture and the office of national Buddhism, should support and supplement temple restoration budgets.
- A local curriculum should be designed to incorporate traditional knowledge of ubosot construction. This curriculum should then be implemented by local municipalities to educate the community in correct restoration practices.
- Abbots wishing to construct or restore ubosot must consider the problems identified by this investigation.
- The results of this investigation should be presented to building contractors so that they are made aware of the specifics when constructing or restoring ubosot and the potential problems.
- Temples must introduce a system for storing and maintaining historical records, including details related to the construction and restoration of ubosot.

5. Conclusion

This is a unique synthesis of traditional knowledge used in the construction and restoration of Thai Buddhist ubosot. The significance of this study lies in its rarity. At present there is little emphasis placed on the traditional practices related to the ubosot during restoration. This has led to six problems with ubosot renovation. By using this research as a foundation, temple management committees may successfully integrate traditional Thai architectural knowledge in their reconstruction projects and ensure that Thai temples continue to reflect the essence of the local community for the foreseeable future.

References


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