

## Conservation Practice of Vernacular Houses in the Northeastern Thailand<sup>\*</sup>

### การปฏิบัติการอนุรักษ์เรือนพื้นถิ่นในภาคตะวันออกเฉียงเหนือของประเทศไทย

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#### Abstract

Northeastern Thailand has various styles of vernacular houses of Tai-Kadai and Mon-Khmer ethnic groups passed as the architectural heritage with the long history of settlement for a few centuries. Since many decades ago, locals and conservationists have preserved the vernacular houses located in many places in the region but now there are only a few researches exposing their practice. This article aims to answer a related question, “How have the ethnic-vernacular houses in the northeastern Thailand been preserved?”. Therefore, an integrated approach to collect data were both from the methods of qualitative research including historical document review and key informant interview, and the architectural observation from 23 case studies across the region. The discussion of the results emphasizes on the concept of conservation with minimum intervention which giving precedence to preserve the authentic value of architectural heritage as much as possible. As a result, the study found that the conservation of vernacular houses came with various techniques and building use different from case to case due to the context and limitation of each specific place. Overall conservation practice could not preserve the authentic value of vernacular houses as it should have been. Strengthening the local awareness and knowledge on the conservation of vernacular houses, and balancing between the authentic preservation and profitable management, are recommendations for the quality enhancement of conservation practice under the concept of minimum intervention.

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(This article is funded by Center for Research on Plurality in the Mekong Region (CERP), Faculty of Humanities and Social Sciences, Khon Kaen University)

**Keywords:** Vernacular house, northeastern Thailand, conservation practice

## 1. Introduction

The northeastern Thailand is a region with the largest area in approximately one third of the country (168,854 sq km). Historical evidences indicated that this vast land was a settlement of language ethnic groups of “Tai-Kadai” and “Mon-Khmer”, citizens of an ancient kingdom of “Lan Xang”, which their settlement appeared spread across the region since the end of the 18<sup>th</sup> century (Schliesinger, 2000, 2001a, 2001b).

Traditional houses that belong to the lineage of Tai-Kadai and Mon-Khmer ethnic groups referred in this article “vernacular houses” are the architectural heritage of the region. Both locals and conservationists from several sectors (i.e., community, public authority, academic institute, and private entity) have preserved such ethnic-vernacular houses for different purposes such as residential, conservative and tourism since many decades ago. Currently, the conservation of traditional vernacular houses as a cultural asset is getting a lot of attention from Thai society due to the popularity of community-based tourism in the region; for example, a group of Tai-Kadai vernacular houses conserved at “Isan Village, Jim Thompson Farm” in Nakhon Ratchasima province, a well-known tourist attraction in the lower northeast, and the awarded architectural heritage conservation of Tai Loei houses in a village of “Ban Na O” in the upper northeast. However, until now there are only a few researches exposing such practice. For example, an article on the conservation of “Tai Loei houses”, a type of houses of Tai-Kadai ethnic group at the Ban Na O village, mutually implemented by a group of conservationists from community, municipality, and academic institute (Sutthitham, 2001).

Therefore, this article aims to explore the status of the conservation practice of vernacular houses in the northeastern Thailand in order to understand the current phenomenon and to find appropriate recommendations on conservation approach that can be adopted under the socio-economic and cultural changes in the region. To response this intention, the conservation practice in terms of techniques and building use would be explained and discussed with a concept of conservation with minimum intervention: giving precedence to preserve the authentic value of architectural heritage as much as possible.

## 2. Methodology

### 2.1 Case Studies

In this study, 23 case studies in the northeastern Thailand (see Figure 1) had been chosen to study the conservation of vernacular houses under 3 criteria:

1) All sampling cases had to appear the conservation of vernacular houses. This could be practiced by either the locals (daily maintenance of the houses for residential purpose) or the conservationists from several sectors such as community, public authority, academic institute, and private entity (conservation projects implemented for conservative and tourism purposes).

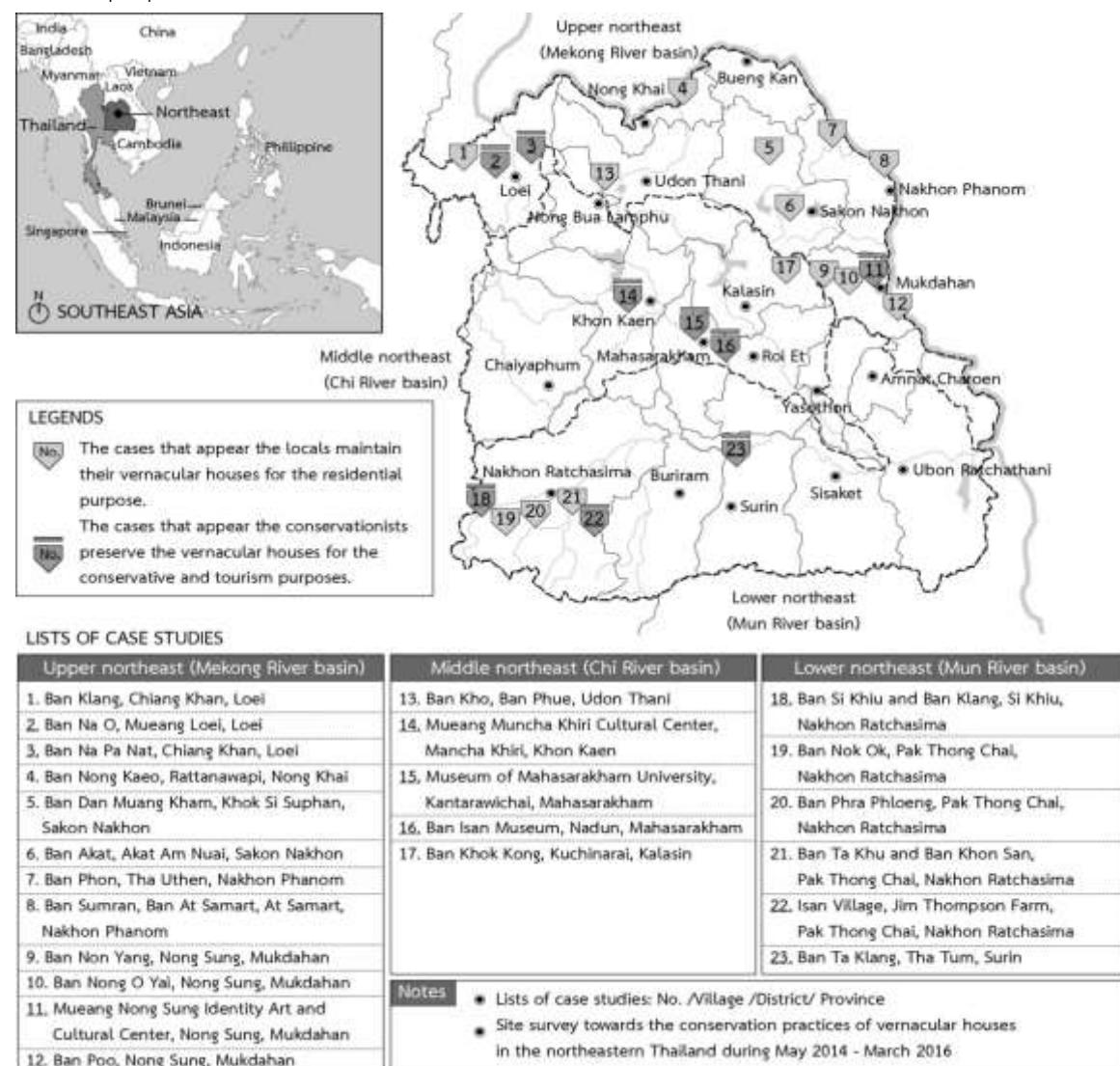


Figure 1: Group of case studies

2) Physical identities of vernacular houses such as forms and characteristics had to be accepted as traditional styles of the ethnic groups who settled in the northeastern Thailand.

3) Distribution of case studies had to cover key settlements of the ethnic groups in the northeastern Thailand such as the upper northeast (Mekong River basin), the middle northeast (Chi River basin), and the lower northeast (Mun River basin).

## 2.2 Data Collection

In the field of social sciences, the conservation of vernacular houses had been considered as a social phenomenon. In many case studies, we could see efforts of locals and conservationists who sought possible and appropriate means to retain the existing vernacular houses under the different context of social and cultural as well as the impact of urbanization. In order to explain such phenomenon truthfully, a historical document review and a key informant interview had been mutually adopted with an architectural observation as the integrated approach to collect data in the field survey during May 2014 – March 2016, with details as follows.

1) Historical document review: to study the background of the vernacular houses and the ethnic settlements in the northeastern Thailand.

2) Architectural observation: to study the physical identities of vernacular houses including the physical outputs of conservative practice.

3) Key informant interview: to study viewpoints, objectives, techniques, limitation, and related issues towards the conservation of vernacular houses from interviewing both locals and conservationists<sup>1</sup> in the case studies.

## 2.3 Analytical and Discussion Framework

The conservation with minimum intervention had been considered as a universal approach for the architectural conservation since the statement of the Venice Charter in the mid-1960s, which gave precedence to the authentic preservation of architectural works as a

<sup>1</sup> In the step on interview, the questionnaire certified by the Khon Kaen University Ethnic Committee for Human Research based on the Declaration of Helsinki and the ICH Good Clinical Practices Guidelines was used as a research tool for interviewing both locals and conservationists. This could ensure that the private information of key informants would be kept confidentially and they would not get any harm or impact from being volunteers for this study.

part of historic monuments<sup>2</sup> (ICOMOS, 1964). These also included the declaration of later international and regional standards, i.e., the Nara Document on Authenticity 1994, the Berra Charter 1999, Charter on the Built Vernacular Heritage 1999, Principle for the Preservation of Historic Timber 1999, Xi'an Declaration 2005, Thailand Regulation of the Fine Arts Department 1985 and Thailand Charter on Cultural Heritage Site Management 2011, which emphasized on the authentic preservation of cultural heritages<sup>3</sup> in various aspects either tangible or intangible such as architecture, landscape, wisdom, and cultural meaning (ICOMOS, 1994, 1999a, 1999b, 1999c, 2005; the Fine Arts Department of Thailand, 1985; ICOMOS Thailand, 2011). Therefore, the preservation of authenticity was a mutual essence and a key goal of every standard to achieve the conservation of cultural heritage.

In this study, the word “authenticity” meant traditional characteristics, having a specific identity, being a qualitative factor which can indicate the value of cultural heritage (or referred in this article “architectural heritage”). The authenticity might be considered from building, setting, material, craftsmanship, use, and meaning. The phrase “preservation of authenticity” in practical meant all practices of looking after the architectural heritage with minimum intervention in order to prevent any impacts on the authentic value. This essence was a source of the concept of conservation with minimum intervention.

In Figure 2, an analysis by overlapping all standards revealed the conservation approach with minimum intervention. That is “Any conservation practice had to be the minimal intervention in order to maintain the authenticity of vernacular houses as much as possible”. In detail, it had been categorized into 5 main guidelines:

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<sup>2</sup>In the Venice Charter, the meaning of historical monument embraced either architectural works or urban and rural settings that were the evidence of civilization and showed the historic and cultural significance (ICOMOS, 1964).

<sup>3</sup>In the standards announced after the Venice Charter, a word “cultural heritage” was usually used in the field of conservation referring to the creative work made by people of the nation, being valuable-cultural property, handing down from the past generation, and appearing specific identity of place. A meaning of cultural heritage included all types of valuable-cultural properties either the tangible, (e.g., monuments, architecture, urban and rural neighborhoods, historic and cultural landscapes, ancient objects and artworks etc.) or the intangible (e.g., knowledge, meanings, beliefs, traditions and livelihood etc.) (ICOMOS Thailand, 2011).

International and Regional Standards Related to the Conservation of Vernacular Houses									Conservation Approach with Minimum Intervention
The Venice Charter 1964	The Nara Document on Authenticity 1994	The Bern Charter 1999	Charter on the Built Vernacular Heritage 1999	Principle for the Preservation of Historic Timber Structure 1999	XIAN Declaration 2005	Thailand Regulation of the Fine Arts Department 1985	Thailand Charter on Cultural Heritage Site Management 2011		
✓	✓	✓	✓	✓	✓	✓	✓	✓	1 To retain the relationship between vernacular houses and their environmental settings
✓	✓	✓	✓	✓		✓	✓	✓	2 To keep the traditional forms and characteristics of vernacular houses
✓	✓	✓	✓	✓		✓	✓	✓	3 To promote the use of tradition techniques and materials for conservation practice
✓	✓	✓	✓			✓	✓	✓	4 To determine the building use with the respect of traditional functions of vernacular houses
✓	✓	✓	✓			✓	✓	✓	5 To retain the value and meanings of vernacular houses

Note: ✓ The content implied to the conservation approach with minimum intervention.

**Figure 2:** Review of the conservation approach with minimum intervention

- 1) The conservation practice had to retain a relationship between vernacular houses and their environmental settings. In this implication, building location was generally unacceptable except it was a sole technique to ensure the building survival.
- 2) The conservation practice had to keep the traditional forms and characteristics of vernacular houses as much as possible.
- 3) Use of traditional techniques and materials was admirable for the conservation of vernacular houses. However, modern techniques and materials might be used as much as necessary, but as little as possible.
- 4) Building use had to respect the traditional functions of vernacular houses. An adaptive use for some locally useful purpose was acceptable but required a cautious approach of changing as much as possible.
- 5) The conservation practice had to retain value and meanings of vernacular houses as a part of authentic preservation.

In this study, the mentioned concept and guidelines would be adopted as a framework to discuss the conservation of vernacular houses in the aspects of techniques and building use.

### 3. Conservation Background

In the beginning of timeline (see Figure 3), the ethnic groups of Tai-Kadai and Mon-Khmer as the native people in the northeastern Thailand would comply with their original belief on the construction of houses and living in the houses. This was logged on palm-leaf manuscripts or through a knowledge transfer of craftsmanship from generation to generation. Such belief reflected the wisdom of locals on building the vernacular houses in harmony with the natural and cultural context so that their family members could live happily. For example, Phu Tai people, a sub-ethnic group of Tai-Kadai, living in villages of “Ban Non Yang” and “Ban Nong O Yai” in the upper northeast (Case No. 9-10) built their vernacular houses with the timber material, which once was plentiful and could afford from the forest nearby the villages. In addition, each house's structure and proportion would be measured from the specific body of the house owner called “Sok belief”. This would create favorable luck and happiness for the resident (Thungsakul and Wongkham, 2005). The mentioned belief was considered as a traditional system that had been through the socialization and it resulted in the inheritance of vernacular houses in terms of form, material, space, and building technique but almost for the residential purpose.

However, the practice in compliance with the traditional system began to fade out due to the impact of urbanization: a development of rural community into urban society that caused a demolition of vernacular houses or a renovation of vernacular houses without concerning the preservation of authenticity, finally led to sharply decrease number of vernacular houses in the region. The locals also turned their value of building the house from the traditional style into the popular or modern style as they saw: more comfortable to live in; more suitable for today's way of life; lower cost; and less time of construction. This phenomenon affected the survival of vernacular houses in the region over the past decade.

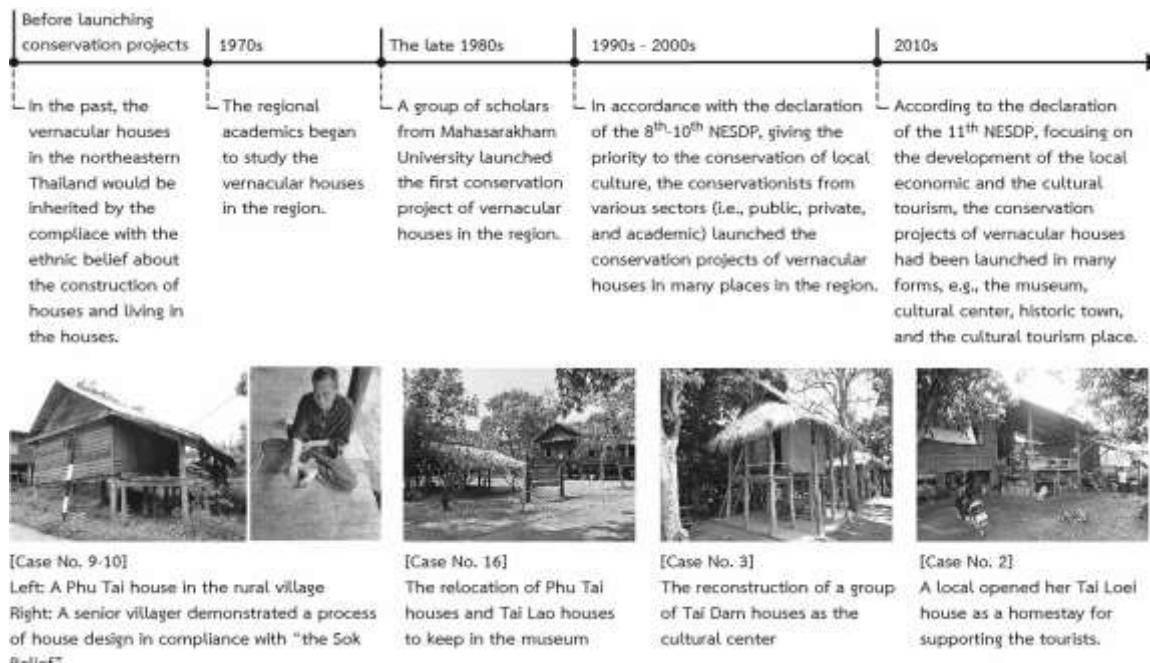


Figure 3: Timeline of the conservation of vernacular houses in the northeastern Thailand

The serious conservation of vernacular houses began in the decade of 1970 by a movement of regional academics who studied the ethnic-vernacular houses in the region. The research results raised the social awareness towards the value and significance of vernacular houses as a part of architectural heritage. Then, in the late 1980s, we could see their implementation concretely in a form of conservation projects. For instance, the establishment of "Ban Isan Museum" in the middle northeast (Case No. 16) by a group of scholars of Mahasarakham University in the year of 1989 to 1992, which was considered the first project in the region, placed importance on the relocation of vernacular houses of "Phu Tai" and "Tai Lao" people from the original settings to the museum.

During 1990-2000, later conservationists from various sectors (i.e., community, public authority, academic institute, and private entity) started their projects to preserve the ethnic-vernacular houses in many places in the region. These were partly a result of national policies, starting from the declaration of the 8<sup>th</sup>-10<sup>th</sup> National Economic and Social Development Plan (NESDP) 1997-2011 (Office of the National Economic and Social Development Board, 1997, 2002, 2007), which gave priority to promote the conservation of local culture both tangible and intangible as a root of nation development. For example, the establishment of "Ban Na Pa Nat Tai Dam Ethnic Groups Cultural Center" in the upper northeast (Case No. 3) in 2003 to reconstruct a group of vernacular houses of "Tai Dam" people with the involvement of

partners, i.e., the locals, municipality and educational institute. Until the announcement of the 11<sup>th</sup> NESDP 2012-2016 (Office of the National Economic and Social Development Board, 2012) focused on the development of cultural capital and tourism in the local communities. This resulted in the preservation of vernacular houses not only the conservative aspect but also the tourism purpose that could generate income and economic development to the local communities. For example, the cooperation of Tai Loei people at the village of “Ban Na O” in the upper northeast (Case No. 2) to initiate a project called “Na O Homestay”, which persuaded the owners of vernacular houses to open a homestay service for supporting tourists who visited the community.

In according to chronological events in the timeline, at present, the traditional system of the ethnic groups that effected on the inheritance of vernacular houses had fallen considerably. This was caused by the change of social and cultural environment through time, while the conservationists had played a key role in the conservation of vernacular houses even more. The movement of the academics in the field, as well as the national policies emphasizing on the conservation of local culture and the development of local cultural tourism, were influenced factors that lead to the conservation projects of vernacular houses in the forms of museum, cultural center, historical town, and cultural tourism place.

#### 4. Study Result

The analysis of collected data from 23 case studies in the northeastern Thailand reveals the diversity of the conservation of vernacular houses not only the house’s styles that are empirical evidences, but also a group of people who play the key role in conservation with the use of different techniques and building use (see Table 1).

##### 4.1 Styles of Vernacular Houses

In Figure 4, a mapping shows that most of vernacular houses preserved by both locals and conservationists belong to the Tai-Kadai ethnic group, i.e., Tai Loei house, Tai Dam house, Tai Lao house, Phu Tai house, Tai Yuan house, and Tai Khorat house. Such houses are located in different areas throughout the region either in the upper northeast, middle northeast, and lower northeast. Besides, the vernacular houses of the Mon-Khmer ethnic group, another main ethnic group in the region, nowadays are mostly changed from their original styles due to the influences of the social and cultural dynamics as well as the impacts of urbanization. It has only a group of Kui houses at a village of “Ban Ta Klang” (Case No.23) in the lower northeast, which their physical identity meet the criteria for the selection of case studies.

Table 1: Analysis of collected data from 23 case studies in the northeastern Thailand

NOTE	
No. : The cases that appear the local people maintain their vernacular houses for the residential purpose.	
No. : The cases that appear the conservationists preserve the vernacular houses for the conservative and tourism purposes.	

No.	Group of Case Studies (Place, District, Province)	Key Informants in Conservation Practice						Conservation Techniques	Building Use
		A	B	C	D	E	F		
1.	Ban Klang, Chiang Khan, Loei	✓							
2.	Ban Na O, Mueang Loei, Loei	✓							
3.	Ban Na Pa Nat, Chiang Khan, Loei		✓						
4.	Ban Nong Kaeo, Rattanawepi, Nong Khai			✓					
5.	Ban Dan Muang Kham, Khok Si Suphan, Sakon Nakhon				✓				
6.	Ban Akat, Akat Am Nuai, Sakon Nakhon					✓			
7.	Ban Phon, Tha Uthen, Nakhon Phanom						✓		
8.	Ban Sumran and Ban At Samart, At Samart, Nakhon Phanom							✓	
9.	Ban Non Yang, Nong Sung, Mukdahan							✓	
10.	Ban Nong O Yai, Nong Sung, Mukdahan								✓
11.	Mueang Nong Sung Identity Art and Cultural Center, Nong Sung, Mukdahan								✓
12.	Ban Poo, Nong Sung, Mukdahan								✓
13.	Ban Kho, Ban Phue, Udon Thani		✓						✓
14.	Mueang Muncha Khiri Cultural Center, Mancha Khiri, Khon Kaen		✓						✓
15.	Museum of Maha Sarakham University, Kantarawichai, Maha Sarakham		✓						✓
16.	Ban Isan Museum, Nadun, Maha Sarakham		✓						✓
17.	Ban Khok Kong, Kunchinai, Kalasin		✓						✓
18.	Ban Si Khui and Ban Klang, Si Khui, Nakhon Ratchasima		✓						✓
19.	Ban Nok Ok, Pak Thong Chai, Nakhon Ratchasima		✓						✓
20.	Ban Phra Phloeng, Pak Thong Chai, Nakhon Ratchasima		✓						✓
21.	Ban Ta Khu and Ban Khon San, Pak Thong Chai, Nakhon Ratchasima		✓						✓
22.	Isan Village, Jim Thompson Farm, Pak Thong Chai, Nakhon Ratchasima		✓						✓
23.	Ban Ta Klang, Tha Tum, Surin		✓						✓



Figure 4: Styles of vernacular houses in the northeastern Thailand

Such styles of vernacular houses still retain their physical identities quite complete and have mutually architectural forms and characteristics: single storey house with the raised floor; well-ventilated living space divided by the mix of solid wall, open wall, and different floor steps; and high slope roof. These are the features of vernacular houses in the tropical zone of Southeast Asia which the performance of hot and humid ventilation and rainfall drainage are required more those vernacular houses in the other climate zones. In terms of the construction, in the past, the vernacular houses were made of natural materials that could be easily found in their environmental settings, e.g., hardwood, bamboo, grass, and clay. However, in the present, the traditional materials may be replaced by the modern materials such as using the metal sheet to replace the timber and clay tiles that become rare and expensive. For the building use, the vernacular houses have the living space as needed for the agrarian society, which the subsistence of locals depends on rice crop, animal farming, and handicraft. Moreover, the traditional beliefs of each ethnic group towards the construction of houses and living in the houses are the factors that determine the style of vernacular house in the aspects of form, utility space, and decoration. These make each style of vernacular

house to form the unique identity in greater details. For example, the design of the pediment of Tai Yuan houses was made of wood with the half-sunshine shape and the batten siding in the halo form for the heat ventilation. This also implies the meaning of prosperity and glory of the residents.

The mentioned vernacular houses, therefore, are the empirical evidence that reflects the history of the settlement of Tai-Kadai and Mon-Khmer ethnic groups in the northeastern Thailand. As well, they indicate the local wisdom on the vernacular house's construction responding to the natural and cultural environment of the region which the locals depend their lives on farming, belief, and tradition of the specific ethnic group. These motivate the conservationists from several sectors to implement the conservation projects of vernacular houses at many places in the region since the late 1980s until now.

#### **4.2 Conservation Techniques**

Practically, there were many techniques of architectural conservation specified by scholars and conservationists from academic institutes. For instance, Fielden (2003) proposed 7 techniques of architectural conservation: prevention of deterioration, preservation, consolidation, restoration, reproduction, and reconstruction. In addition, Insall (2008) proposed the architectural conservation with 10 techniques: day-to-day building care, programmed maintenance, conservation, major repairs, radical improvement, restoration and rebuilding, rehabilitation, reincorporating existing buildings, new building in context, and conservation in a change historic area. Most of them had been sorted respectively from the least to the greatest of the intervention of cultural heritage. Furthermore, there were also several techniques recommended in the international and regional standards related to the conservation of vernacular houses such as preservation, restoration, reconstruction etc. However, the use of each technique depended on the conservationist's viewpoint, the purpose of conservation, and the context of architectural and site condition.

In this study, the site survey of 23 case studies expose various techniques that both locals and conservationists use to retain the vernacular houses located in the specific places. The classification of such techniques referred to the above concepts of Fielden (2003) and Insall (2008) as well as the international and regional standards can be categorized into 4 main techniques in the order of the architectural intervention from the least to the greatest: day-to-day care, relocation, reconstruction, and re-creation (see Figure 5).

### **1) Day-to-day care**

For a group of case studies or the communities that the locals maintain their vernacular houses for the residential purpose, most of them take routine care of the houses under the limitation of knowledge, manpower, and capital, so the activities appear only cleaning and repair of damaged parts. The reasons that the locals still maintain their vernacular houses are not either the compliance with the traditional residential-ethnic belief or the international approaches of architectural conservation, but they do because of a few simple factors: still be used as their residences, having closely relationship with the living place, and keeping the houses as the family's legacy. As a result, the locals do not strictly maintain the traditional forms and characteristics of vernacular houses. For example, at "Ban Nong Kaew" village, the locals often collected the old clay tiles as the original material for roofing renewal of the Tai Lao houses. Such clay tiles bought from any neighbor who just removed his/her Tai Lao houses. The locals also reported that if in the future, they could not afford the old clay tiles. It was necessary to replace the roofing with the modern materials like the tin sheet and zinc roof (Case No. 4).

### **2) Relocation**

The nature of vernacular house's structure in the northeastern Thailand entirely built from the hardwood and bamboo that are effortless for the craftsmen to disassemble or reassemble. In addition, almost vernacular houses and land have been occupied by the locals as the individual tenure which are difficult for the conservationists to intervene for the house conservation at the original site, especially the house owner intends to remove the old house and replace with the modern one. Therefore, the relocation of vernacular houses to be reassembled at a new location either in the same neighborhood or in the territory of the ethnic settlement is the popular practice that the conservationists normally apply for the conservation projects in order to preserve the vernacular houses in the appropriate environment.

The process of relocation starts from: (1) purchasing the vernacular house from the house owner, (2) architectural measurement, (3) house disassembly, (4) transportation of all house's elements (taking a few days), and (5) house reassembly following the recorded-architectural design (taking 1-4 weeks). This working process requires the craftsmen who specialize in the construction of vernacular houses and woodworking. For example, during 2007-2015, the conservationists from the private sector titled "Jim Thompson – The Thai Silk Co., Ltd." relocated the vernacular houses: Tai Khorat houses and Tai Yuan houses, from many communities in Nakhon Ratchasima province to keep and exhibit at the Isan Village, Jim

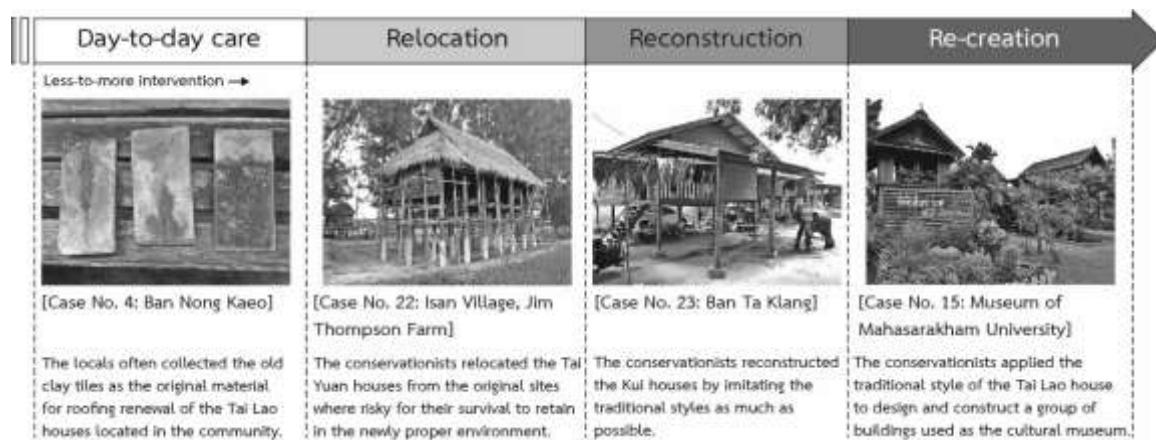
Thompson Farm, the well known-cultural tourism attraction in the lower northeast (Case No. 22).

### **3) Reconstruction**

The reconstruction is an alternative technique of the architectural conservation that the conservationists apply to preserve the vernacular houses in the northeast, especially in the case that the conservation cannot be done at the heritage site or the vernacular houses have vanished from the communities. According to the reconstruction, the style, size, and form of vernacular houses will refer to the architectural researches. The assembly of the house will use all new materials and need the proficiency of craftsmanship especially the woodworking. For example, in 2006, Surin Provincial Administrative Organization, a local government authority, reconstructed a group of Kui houses to serve as the reception houses for the visitors who came to visit “The Elephant Study Center” at Tha Tum district, Surin province (Case No. 23).

### **4) Re-creation**

With the features of vernacular houses in the northeastern Thailand, having the small size of house and the compact space in accord with the rural household life but on the other hand, these are the limitation of conservation if the house’s function has to be modified beyond the residential purpose. The re-creation then is another conservation technique of vernacular houses that the conservationists used to retain both the house identities and the building use with the maximum benefit. The design of re-created buildings mostly have the new utility spaces, e.g., exhibition hall, meeting room and office etc., but the forms and characteristics of buildings still show the traditional identities of vernacular houses: lifted open space under the building, tall pediment, construction with the timber as the traditional material, house’s decoration in compliance with the belief and culture of each ethnic group. For example, the construction of “The Museum of Mahasarakham University” in the years of 2003-2004, the exterior design applied the forms and characteristics of the Tai Lao house while the interior design provided the utility spaces for exhibition, meeting facility, office and learning activity (Case No. 15).



**Figure 5:** The conservation techniques of vernacular houses in the northeastern Thailand

When discussing all mentioned techniques with the conservation approach with minimum intervention, we can see that the conservation of vernacular houses implemented by both locals and conservationists still highly intervene the architecture and settings and cannot maintain the authenticity as it should be.

In the cases practiced by the locals, it is seen that the technique of day-to-day care: cleaning and repair of the damaged parts, intervenes the vernacular houses and settings less than other conservation techniques. However, the behavior of locals in repairing the vernacular houses is changing from the use of traditional building materials (e.g., wood, bamboo, clay tile etc.) to industrial building materials (e.g., cement, steel, ready-made products etc.) due to the advantages of shortening the construction period and the lower cost of construction. Such situation is a risk issue that reduces the authenticity of the architectural styles and characteristics of vernacular houses.

For the cases practiced by the conservationists, almost of them have a viewpoint that the current context and environment are not appropriate for the conservation of vernacular houses in their original settings, especially the impact of the development of rural community into urban society, and the limitation arising from the land and housing tenure owned by the individual. Therefore, the conservationists prefer to use other techniques that can be easily implemented for the conservation of vernacular houses even though they require the higher level of intervention such as relocation, reconstruction, and re-creation. However, such conservation techniques inevitably affect the authentic preservation of vernacular houses and may become a criticism in the field of architectural conservation. For example, (a) the disadvantage of the relocation is a disconnect between the vernacular houses

and their settings, and (b) the result of the reconstruction and re-creation may be criticized for the loss of the authenticity in terms of the traditional styles and characteristics, the use of traditional techniques and materials, and the cultural value and the meaning of the vernacular houses.

#### **4.3 Building Use**

In terms of the building use, the vernacular houses in the northeast have been used in many functions which depend on the conservative purposes such as residence, museum, cultural center, homestay etc. Such types of building use could be explained by the application of the concept of Chapman (2007) that classified the building use in architectural conservation into 4 categories by the order of descending levels of intervention: (1) no use, (2) original use, (3) minimal change of use, and (4) completely change of use (see Figure 6).

##### **1) No use**

In the communities that still have the vernacular houses, some of them are not in use, closed, or abandoned. These are caused by: the lack of fund for repairing the vernacular houses, the death of house owner without his/her heir, or the emigration of house owner. For example, at “Ban Phu” village, a senior villager closed the Phu Tai house inherited from his parent because of its deterioration. Currently, his family had moved to live in a new-modern house next door and he was planning to fund for the renovation of the Phu Tai house to open the homestay accommodation (Case No. 12).

##### **2) No use**

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##### **3) Original use**

In the communities that appear the locals maintain their vernacular houses, almost vernacular houses are still used for residential purpose. If the locals have enough funds, they usually extend their vernacular houses with the construction of the additional rooms and space to respond the current lifestyle such as bedroom, kitchen, bathroom, multi-purpose area, parking area etc. For instance, an owner of Tai Khorat house at “Ban Nok Ok”

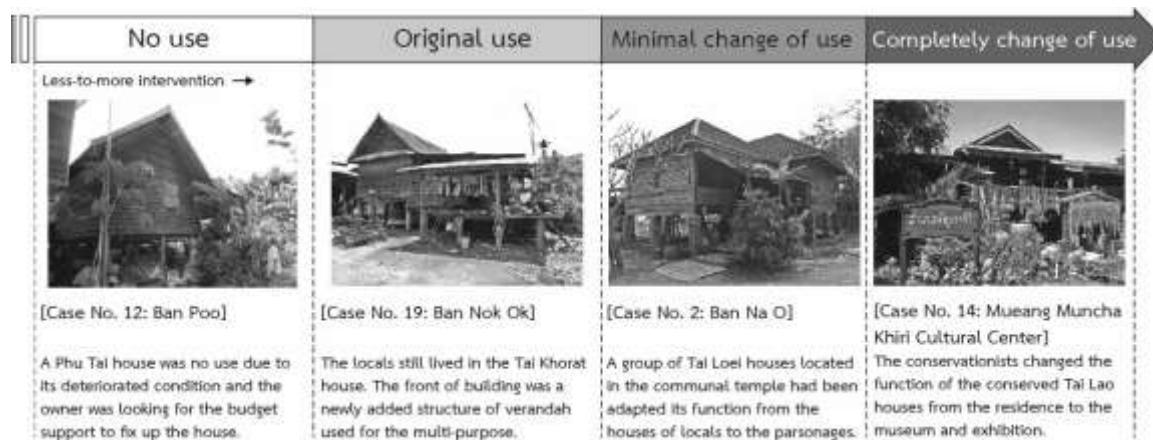
village constructed a newly added structure of verandah in front of the house used for the multi-purpose activities such as cooking, dining, and relaxing (Case No. 19).

#### **4) Minimal change of use**

In many conservation projects of vernacular houses, the conservationists will adapt the building function from the residential purpose to other activities as much as necessary, but as little as possible. For example, at “Ban Na O” village, the community sector in cooperated with the local municipality and academic institutes relocated a group of Tai Loei houses from their original settings to preserve in the communal temple established as the cultural center of the community. The conserved Tai Loei houses had been adapted their function as the parsonages which they still retain the utility space close to the traditional floor plan of the house (Case No. 2).

#### **5) Completely change of use**

For the cases that the conservationists preserve the vernacular houses beyond the residential purpose, they will completely change the use of the houses responding to the new purposes to maximize the benefits for themselves and society such as the museum, cultural center, historical town, cultural tourism place etc. In the practice, the conservationists including the craftsmen will play the key role in designing and constructing additional functions and space of vernacular houses (e.g., exhibition hall, meeting room, office, shop, and other services) while the exterior identities of the houses (e.g., form structure, building skin, and decorated elements) will be preserved as much as possible. In addition, the modern materials may be used to replace the traditional materials to enhance the stability of the vernacular house: the use of the reinforced concrete structure instead of the hardwood to bear more weight load, especially for column, beam, and floor. For example, an owner of “Mueang Muncha Khiri Cultural Center” in cooperated with the local municipality and academic institutes relocated a group of Tai Lao house and changed its function as the museum for the exhibition of local art and culture (Case No. 14).



**Figure 6:** The building use of vernacular houses in the northeastern Thailand

Regarding the classification of above building use, the functions of vernacular houses have been determined by either the locals for the residential purpose or the conservationists for other purposes: museum, cultural center, tourism place etc. Such practices are also criticized in terms of the authentic preservation when considered under the conservation approach with minimum intervention.

In the local communities, although the locals still maintain the vernacular houses for the residential purpose, their increased demand for the living space to meet the modern lifestyle influences the survival of houses in the long run. The house extension with the additional rooms: bedroom, kitchen, bathroom, multi-purpose area etc. and the construction with the modern techniques and materials: masonry wall, concrete and tiled floor, ready-made door and window etc., can be more easily found than the preservation of traditional forms, characteristics, materials, and living space. It also includes the worst-case scenario that they decide to demolish the vernacular houses and replace with the construction of modern houses to respond their living desire. These situations considered as a social phenomenon reflects the development impact of rural community into urban society and push the survival state of vernacular houses into vulnerable. Therefore, the practice of local people towards the building use is still far from the conservation approach with minimum invention that the preservation of the traditional function and physical identity of vernacular houses indicate the quality of the architectural conservation.

In the cases that the conservationists implement the conservation projects of vernacular houses, the building use has mostly adapted beyond the local residence and can be classified into the minimal change of use, e.g., parsonage, homestay etc., and the

completely change of use, e.g., museum, cultural center, cultural tourism place etc. Furthermore, the adoption of the concept of living museum: the demonstration of tradition art and culture of ethnic groups is popular among the conservationists to create the atmosphere of the real local community such as rice farming, weaving, crafts, cooking, folk dance etc. These activities are the efforts of conservationists to fill the contents towards historical, social, cultural of the ethnic groups to maintain the quality of the conservation of vernacular houses. However, in the authentic aspect, the adaptive use may change the value and meaning of vernacular houses from the local residence suitable for the natural and cultural environment to the public building or the cultural product beneficial for the specific group of people or authority. This issue may be criticized about the loss of the authenticity, especially the historical and cultural values that embed in the vernacular houses.

## 5. Conclusion

The conservation of vernacular houses of Tai-Kadai and Mon-Khmer ethnic groups, which are the specifically architectural heritage in the northeastern Thailand, both locals and conservationists who play a key role in conservation practice adopt various conservation techniques, i.e., day-to-day care, relocation, reconstruction and re-creation, and determine the building use for several activities, e.g., residential, conservative, and tourism. Such practice has different levels of architectural intervention and the adoption of each technique and the determination of building use depend on many related factors such as stakeholder's views, objectives of conservation, context and limitation of each specific place.

When consider with the conservation approach with minimum intervention: giving precedence to the authentic preservation of architectural heritage either tangible or intangible, the conservation practice of vernacular houses in the northeast is still not consistent with such concept and guidelines as it should be.

1) The existing circumstance: some locals prefer to build the new-modern houses instead of to maintain their vernacular houses and almost conservationists decide to relocate the vernacular houses from their original settings to keep in the new-appropriate environment. In the aspect of the authentic preservation, this is an issue that diminishes or break off the relationship between the vernacular houses and their original settings: the formation of vernacular houses that correspond to the specifically natural and cultural environment.

2) In the cases that the locals use the technique of day-to-day care to maintain their vernacular houses at the original settings, improving and extending the houses without following the architectural conservation guidelines, in the long run lead to change or loss the physical identities of the houses both traditional forms and characteristics.

3) Due to the deficiency of traditional materials and craftsmen, the locals and the conservationists are undeniable to use the modern materials and techniques for the maintenance and preservation of vernacular houses. However, the lack of control over the suitable use of modern materials and techniques, in many cases, it negatively affects the authentic value of the houses.

4) In the cases that appear the conservationists implementing the conservation projects of vernacular houses, the trend of building use has changed from the residential purpose to conservative and tourism purposes due to they can provide more service function to the public and the owners can create more income from managing the project in the long run. Nevertheless, this adaptive use may change more or less the physical identities of the houses in terms of floor plan, interior space and decoration, which can be criticized in the aspect of authentic preservation.

5) According to the adaptive use of vernacular houses, the change of value and meaning from the local residences to the cultural products has still criticized for the authentic loss of the intangible-architectural heritage especially the historical and cultural values embedded in the vernacular houses.

The above study indicates the limitation of locals and conservationists to preserve the vernacular houses in different place. The followings provide recommendations to improve and develop the conservation practice to achieve the conservation approach with minimum intervention.

1) The stakeholders from relevant sectors such as central government agency, local authority, and academic institute should play more active role in strengthening the conservation awareness and knowledge for the locals, especially the house owners in order to maintain their vernacular houses at the original settings.

2) To conserve the vernacular houses appropriately, the conservationists should take into account the balance between the authentic preservation and the profitability management. Under this approach, the conservationists will concern more about the conservation of vernacular houses with minimum intervention while the project management can run continuously with the pursuit of profit from the conservation activities.

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