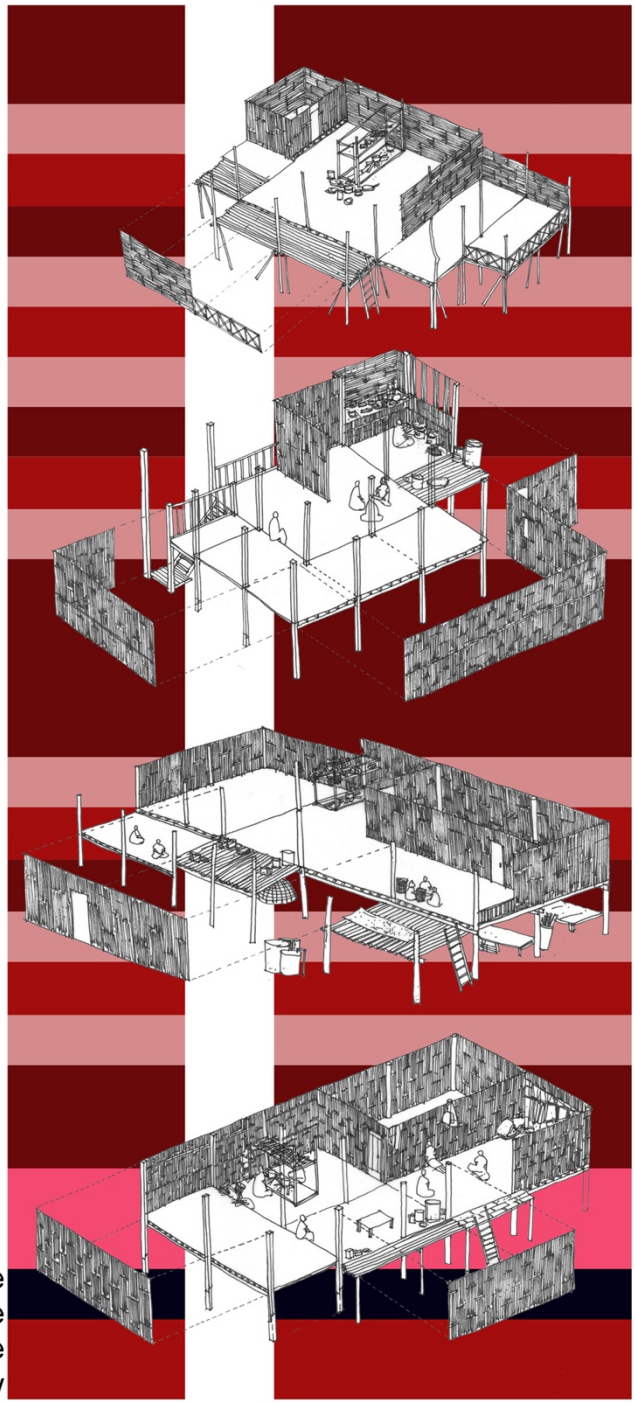
PARTICIPATION DWELLING AND ENVIRONMENT

Re-housing an Indigenous Karen Community in Thailand



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This study aims to understand and evaluate the impact and effectiveness of a re-housing process on the lifestyle and culture of a Karen community and to identify supportive factors and challenges affecting the process. The study investigates the people of a Karen village who were forcibly evicted from their village homes by armed Thai forces and national park officials. They were relocated to new areas further from the Thai-Myanmar border but still within the national park where they constructed initial dwellings in a new village.

The study employs a multi-method perspective: architectural, anthropological and sociological. A participatory approach was employed throughout the project, with a focus on design workshops which were a key approach of the study. Furthermore, sub-themes focus on socio-cultural, environmental and economic issues, such as kinship, gender, tradition, income, building materials and construction. The empirical findings enhance our understanding of the roles and responsibilities of parties involved and the process of working in the indigenous environment.



PARTICIPATION, DWELLING AND ENVIRONMENT

Re-housing an Indigenous Karen Community in Thailand

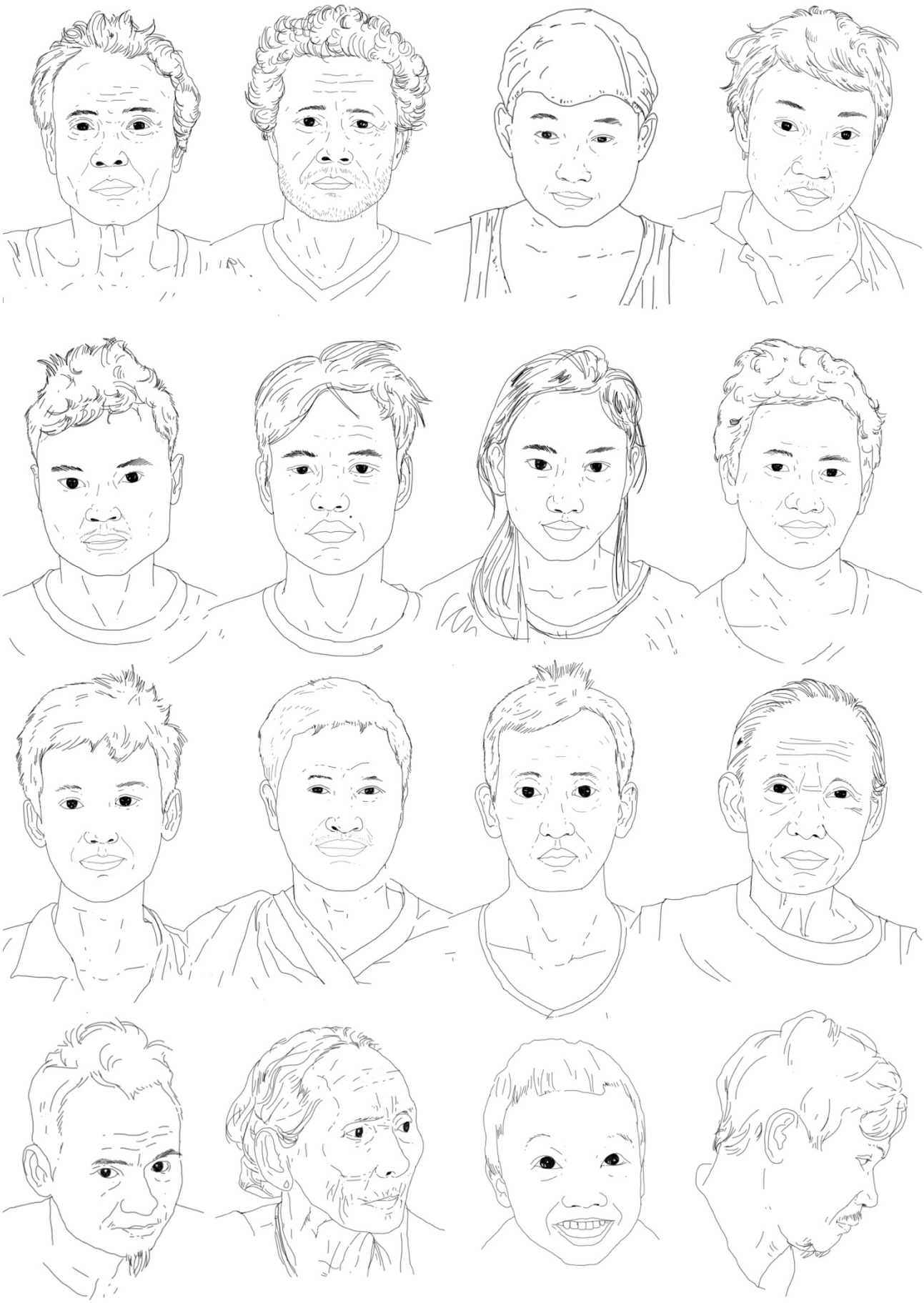
Thesis submitted in fulfilment of the requirements
of the Degree of Doctor of Philosophy

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July 2019







Dedicated to the Banggloy Karen and my colleague, Porlajee Rakjongjaroen (Billy)

Abstract

This study aims to understand and evaluate the impact and effectiveness of a re-housing process on the lifestyle and culture of a Karen community and to identify supportive factors and challenges affecting the process. The study investigates the people of a Karen village who were forcibly evicted from their village homes by armed Thai forces and national park officials. They were relocated to new areas further from the Thai-Myanmar border but still within the national park where they constructed initial dwellings in a new village. In 2014 the official Community Organizations Development Institute (CODI) approved funding for the first Karen Housing Project to improve their dwellings, and I volunteered to lead the project. The project was performed cooperatively with workshops and meetings to enable the Karen people to be the central actors of the solution-finding process. This project was carried out between 2013 and 2018 to document the functional and structural changes to the new dwellings and the community.

The study employs a multi-method perspective: architectural, anthropological and sociological. A participatory and collaborative approach was employed throughout the project, with a focus on design workshops which were a key approach of the study. Furthermore, sub-themes focus on socio-cultural, environmental and economic issues, such as kinship, gender, tradition, income, building materials and construction. All of them being influential to analyse the Karen dwelling process within a traditional culture and the use of domestic space. The systematic participatory process brought me closer to understanding how we can work to understand and develop reciprocity in determining good practice. The empirical findings enhance our understanding of the roles and responsibilities of parties involved and the process of working in the indigenous environment. The building process of the indigenous houses relates not only to the common conditions, such as climate, materials, technology, economics or culture, but also to the pressures from the national park policies. This re-housing process is a starting point for collective community management and rethinking the park policies for future living in relation to sustainable resource management and cultural integrity.

Keywords: participation, dwelling, environment, indigenous Karen, Thailand

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I would like to thank very much the poor people from both rural and urban settlements whom I have met on my journey and talked and worked with. They have inspired me to think how to make this world better through social and architectural processes.

Sadanu Sukkasame
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Abbreviations

AR Action Research

CODI Community Organizations Development Institute

CTF Chumchon Thai Foundation

EBR Environmental Behaviour Relations

EBS Environmental Behaviour Studies

GIS Geographic Information System

HSAO Huaimaepriang Subdistrict Administrative Organisation

IUCN International Union for Conservation of Nature

KKFC Kaeng Krachan Forest Complex

KKNP Kaeng Krachan National Park

KHDP Karen Housing Development Project

KNCE The Karen Network for Culture and Environment

NCPO National Council for Peace and Order

NHRC The National Human Rights Commission

PAR Participatory Action Research

PRA Participatory Rural Appraisal

PTLF Pid Tong Langpra Foundation

RFD Royal Forest Department

RRA Rapid Rural Appraisal

SAO Subdistrict Administrative Organisation

UCDO Urban Community Development Organisation



CHAPTER 1: INTRODUCTION

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INTRODUCTION

December 2012
I returned to Thailand after working in India for a year. "*I have a job for you if you are interested in it. It is about Karen*[1] *villages*", Montha said. "*I have no idea what should I do*", I thought.
A couple of days later, she convinced me to visit her Karen NGO colleague's house in northern Thailand. So, my first experience with the Karen started at Sameong Tai village, Chiangmai province, to know who the Karen people were. I used this chance to make a connection with Preu, who is a leader of the Northern Karen network.

In February 2013, Montha and CODI's staff invited me to visit the Banggloy Karen village for three days. They asked me to take responsibility for conducting a housing improvement project with the Karen. At that time, I did not answer the CODI's staff, because it seemed high risk, given the conflict in the area. After a few months, I decided to take on the project.

A couple of years later….

28 December 2015
9.30 am: "*Come on, come listen to Danu*", a Karen leader said.
The Karen gradually walk to the community house. Some of them wait and chew betel nuts at the community house.

"*Hello, everyone. Today we would like to summarise the project and make plans together for building phase two*", I explained.
"*In the last year [2014], we got financial assistance from CODI*[2] *which works under the Thai government; in other words, we obtained funding from the government to do the housing project. It is a tool to develop the community; it does not mean that CODI comes to build the houses. CODI does not create the house; CODI tries to encourage you to deal with the problems yourself. This is a good opportunity for us all to develop the community together*", I further said.

(The Karen listen intently to what I am saying, but I am not sure if they understand my language. The leaders have to translate my words from Thai to the Karen language, sentence by sentence.)

[1] The Karen are the largest ethnic minority group which are scattered in various places in Thailand. They are found in northern, western and some parts of southern Thailand approximately 15 provinces. See Section 4.1.2 Who are the Karen people?

[2] Community Organizations Development Institute (CODI) (a public organisation under the Ministry of Social Development and Human Security) is an amalgamation of the Urban Community Development Organization (UCDO) and the Rural Development Fund that started in 2000.

In October 2014, CODI approved funding for the housing project in Banggloy village, where the Karen were moved to, and I volunteered to lead the project with Montha Ajchariyakul from the Chumchon Thai Foundation (CTF).[3] The aim was for the project to be performed cooperatively by allowing the Karen people to be the core actors and to decentralise the solution-finding process, focusing on people's participation, to repair and build the houses. Funding from CODI was passed directly to the community, allowing the Karen to manage their finances following collective plans.

In this process, I play two interrelated roles: one as leader of the CODI project, and the other as researcher in my doctoral study. The first aims to rebuild the Karen's houses and to strengthen the community organisation through participatory processes. The second is to find the knowledge and practice of participation in housing. The mutual learning means the Karen and myself working together to create the practical knowledge based on equal cooperation between two domains: practice and theory.

There are many challenges to working cooperatively with the indigenous people by integrating the research and practice together under many constraints. These include building materials, limited budget, strict national park regulations and building skills. This project works on sharing the knowledge and experience to explore participative inquiry and practice. On the other hand, working on the conflict between the Karen and the park officials becomes a critical process in how community-based practice encourages people toward citizen control of the project, and how they become the centre of finding solutions.

Furthermore, the Karen should have the right to adequate housing like the urban poor. However, this does not mean that the state is required to build housing for them; it does mean that it has the responsibility to take a role to ensure that the Karen can access housing as equally as the urban poor. Undeniably, scarceness is the defining aspect of the living conditions of the Banggloy Karen community. Additionally, the Karen have no means to maintain themselves without land. Thus, some of them found that they had to move to somewhere else; for instance, migrating to live in the town or the Myanmar border.

The Karen often live in overcrowded conditions, tending to accelerate the deterioration of dwellings and increase the risk of disease transmission. They also lack basic services such as clean drinking water and electricity. This indicates the ignorance and lack of concern of the national park and the state. Therefore, promoting their rights can help preserve their culture, identity and tradition, and improve the economic conditions which are essential for their survival and well-being. The essential strategy

[3] CTF is a non-government organisation (NGO), founded in 1991, to promote and encourage the development of poor urban and rural areas, as well as to improve the quality of life of local communities and collaboration with various partners, both public and private. Its working area covers both urban and rural areas.

of the housing project is the promotion of the right to participate in the housing process, land tenure systems and self-determination. The Karen voices are vital in the decision-making process. Participation is a critical approach that informs the consent of the Karen in decision-making processes to design and build their dwellings.

> The meeting continued:
> 10.00 am: "*We started this project with Porlajee before he went missing in April 2014.*[4] *We collected data together before proposing the project to CODI.*
>
> *Actually, Porlajee himself was supposed to present the project to CODI. Unfortunately, he disappeared. So, I had to take the responsibility to propose the project on behalf of Porlajee and all of you.*
> *This project concentrates on building and repairing houses, including 91 houses. It is divided into three phases. Now, we have done 27 of 36 houses in phase 1, including this community house*."
>
> 10.30 am: Montha leads the meeting to discuss problems they are facing; lack of land and water, cultivation crops, strict regulations of national park, the World Heritage site proposal, missing Porlajee. We discuss all these pressing issues but we still do not know what the possible solutions are. However, we know what we are facing. I make a short summary on the board. In the end, we leave many questions with them.
>
> 12.30 pm: "*Now my turn, for the workshop in the afternoon, we would like to know what kind of house you need to build. We will come to draw the house together. Do not worry. I will show you and teach you how to draw. You will see it is easy. I know you all have ideas about what your house should look like. If you have no idea, do not worry, we will do it together. We have graph paper, pens, pencils, coloured pencils and oil pastels. We will come to do it together.*
> *However, the constraint is we have a limited budget for building houses, so you have to manage your building to fit within this cost*", I explained and Plu translated.
>
> "*As you can see on this graph paper, one block means one elbow unit, two blocks equal two elbow units… etc. Is it hard for you?*
> *We will start by drawing like this. We will do together it in the afternoon.*
> *We will see you again in the afternoon at 2 pm*", I said before letting them get lunch at home.
>
> Field note, 28 December 2015

[4] Porlajee Rakjongjaroen is a Karen activist who disappeared in 2014 (see Chapter 4).



Fig 1.1 The housing design workshop in December 2015

The design workshop is a stage of participation providing an opportunity to learn about and design the houses. It is an interactive programme, sharing, discussing and exploring possible housing designs. The discussion focused on the housing challenges with respect to affordability, quality and construction.

1.1 RESEARCH BACKGROUND

> When I was an architect at CODI in 2011, before going to the CODI office, I watched the morning news on TV. A piece of news: there was a helicopter that crashed in the Kaeng Krachan National Park and many people died. At that time, I did not know the background behind this event. I ignored it. A couple of weeks later, two more helicopters crashed in the park.
>
> In a news programme, a correspondent reported that on 16 July 2011, a helicopter engaged in the mission of evicting ethnic minority groups crashed in the Kaeng Krachan forest due to weather conditions. This resulted in the helicopter crashing in the border area.
> On 17 July, five dead bodies were found. Later, on July 18, the Royal Thai Army sent a rescue team to bring the bodies back using a Black Hawk helicopter. Due to weather conditions, the mission was postponed by one day.
> On 19 July, eight soldiers and one journalist were sent to the area of the accident. The result was that the Black Hawk crashed in the forest. The nine helicopter passengers died.
> On 24 July, the Royal Thai Army sent a helicopter (Bell 212) to bring all the bodies back to the city. It appeared that this last helicopter crashed into the woods. Three deaths were reported and one person survived.
>
> It was unbelievable how this happened. A correspondent said that they [military and park officials] operated the mission together for the relocation and eviction of the ethnic minority groups. But they did not report on the Karen houses.

1.1.1 The evacuation and the housing project

The operation to relocate the Karen ethnic minority group in 2011 by force from the Kaeng Krachan National Park (KKNP) was a huge issue that led to the death of 16 officials and one photographer, while the Karen were widely labelled as a delinquent group.[5] These traditional areas are where the Karen have lived for hundreds of years. The military and park officials destroyed Karen properties and burned houses and granaries, as well as accusing and arresting the Karen as intruders and for illegal deforestation along the sensitive Thai–Myanmar border. These operations have contributed to the Karen people losing their homes and lacking the farmland to sustain a safe and stable life. They were evicted to an allocated piece of land called “Banggloy village” within the national park, further from the border. However, currently the solutions for the evicted Karen community are unclear; they are still living in poor conditions with not enough land for farming and living.

[5] The last operation took place in June 2011. During the operation, 98 houses were burnt down, and rice granaries were destroyed by military and national park officials. The National Human Rights Commission (NHRC) was requested to investigate the case and proposed the following measures: the national park should stop arresting people until the truth has been established, an integrated coordination mechanism should be established among the parties involved to resolve the problems, the provincial government office should establish a committee to assess the harm caused to villagers and find methods of redress and compensate for any damage caused (Rattanakrajangsri, 2012: 268).



Fig 1.2 Armed park officials burn Karen houses in 2011

Source: Porlajee Rakjongjaroen

Before Porlajee disappeared, he gave me many photos. This is one of them. Park officials held guns and burned houses on the original land. As a result of this operation, the Karen lost their dwellings and farms. Increasing pressure from the national park forced the Karen in Banggloy village to end their cultivation–fallow cycle in the forest as it is regarded as illegal.

Loy Jeebong, a former Karen leader of Pongloug village, explained their problems to a newspaper:

> *The national park officials moved them to this land without an announcement. Before the operation, the officials did not carry out a meeting between the Karen and the officials. After evacuating, most Karen had to live with their relatives, which increased the relatives' burden.*
>
> *Let's think about this, is it right? Since they were moved, no one said anything about the solution at all; they were given no choice about deciding to return to the original land. Moreover, there are people who were evacuated in 1996. The state and national park officials did not care, and when villagers returned, the national park officials burned their houses.*
>
> *Let's think, if you brought one bucket of rice, and then I throw your rice away, how do you feel? Now, the state claims that the Karen are destroyers and lets you see the hills and forests. I will take you to see them. The Karen did not do that; they just cultivate hill rice in the traditional way. If they have destroyed forests, these villages have also been destroyed (*Khaosod*, 2011).*

1.1.2 What are the problems of communities living in the forest?

The main problems of Banggloy village are limited land for agriculture and the lack of resources necessary to build their new dwellings. The Karen people need to cut down trees and bamboo to build their dwellings, but cutting certain kinds of wood is illegal in national parks, which means that they are regularly arrested. The encroached forests policy would take control over the land aiming to improve forest management in the country.[6] This policy has led to both human rights activists and the people living in the forests fearing that it might result in large-scale population displacements, especially under the current oppressive political environment under the junta. Many people argue that the Karen communities were settled in the forest well before the forest areas were established as national parks. Therefore, they should be given the rights to live in these regions and participate in sustainable forest management. When the authorities look at the green areas on the satellite image, they do not see that people are living in the forests and afterwards they tend to declare them as protected areas. This is problematic for the Karen people, who have been settled in the forests for hundreds of years, because after these areas become protected national parks, the communities in those areas can be evicted (Arrerat, 2014).

1.1.3 The challenge facing the Karen: loss of traditional way of life

> *Unlike in Jai pan din [original land], it is not easy to live here, because I am too old, not like a young Karen who can adapt to something new in life easily. Another thing is that here we cannot find something to eat such as betel nuts, which we have to carry from afar. The key to living here is to have rice, but when we lived at Jai pan din, we were able to make a living ourselves.*
>
> Ko-ee Mimi, 101 years old, 25 December 2013

The lack of the right to self-determination is a critical issue in sustaining their lands, resources and territories, affecting livelihoods, cultures and socio-economic conditions (UN-HABITAT, 2009: vi). The Karen need rules to protect their rights and traditions. These are different from the majority of the Thai people, who dominate the mainstream culture. Therefore, their way of life, spirituality and identity are challenged and threatened by government policies. The loss of lands and dwellings and the lack of employment and income-generating opportunities force the Karen to move to urban areas, which can be either temporary or permanent. This creates massive problems and dilemmas for the Karen, and they may suffer from restricted access to basic

[6] Since the junta's NCPO announced Order 64/2014 on 14 June 2014 to take legal measures against encroachers, many ethnic minorities and other marginalised Thai people living in areas overlapping with national parks have been affected (Areerat, 2014).

services and dwellings. On the other hand, moving to urban areas can provide educational prospects for their children. The Karen who move away from the village often live in groups to keep safe and reduce threats and violations. This means that they can still preserve the language and some parts of culture in the urban context; in turn, many of them experience a loss of spiritual, cultural, community and family relationships.

In 2014, we started the housing project, which was supported with financial assistance from CODI. This is a starting point that attempts to improve living conditions in a peaceful environment, contributing to fairness and reducing inequality in society by providing community-centred development. It creates opportunities for the community to develop their physical, intellectual and spiritual faculties through participating. The challenges of the research are working under pressure and regulation and the unique context and people. The study employs a participatory process, drawing on my experience with the urban poor (Sukkasame, 2018c). Although it is a similar process to the urban areas, the context and sequence of work are significantly different and more challenging.

The main objective of this study is to analyse the participatory re-housing process. Its specific objectives can be formulated as follows:

- To evaluate the impact and effectiveness of the participatory re-housing process on the lifestyle and culture of the Karen.
- To identify both supportive factors and challenges affecting the re-housing process.

Following these objectives, there are detailed research questions within the working process. They can be formulated as follows:

Table 1.1 Research questions

Chapters	Research questions
Chapter 5	How is the identity of the Karen explained through the material culture and artefacts of the home?
Chapter 6	How do the Karen create and adapt their houses within the regulations of the national park?
Chapter 7	What are the results of the participatory house design and building process? What form of housing, materials and techniques is appropriate for the long-term building of the Karen community?

It is intended that insights gained from the study will inform policy debates in other similar cases in the future. This is particularly relevant to the government and park policies that affect the indigenous dwellings in the national park.

1.2 APPROACH AND METHODOLOGY

The working process drew on my experience from when I was working as a community architect at CODI. I have been working with poor urban communities in central Thailand, but this is only my second experience of working with an indigenous community. In fact, this is the first re-housing project with an indigenous community in Thailand and it has few precedents in other countries. The project obtained the funding from the Baan Mankong (secure housing) programme. This channels government funds in the form of infrastructure subsidies and housing loans direct to poor communities, which aim to improve the housing environment and basic services (Boonyabancha, 2005). However, the Banggloy Karen housing project is distinctive and does not follow the established process of Baan Mankong programmes with urban communities. It was necessary to build trust with the Karen and involve them closely to ensure they played a key role in the process. From the outset, it was clear that a participatory process would be the key approach to conducting the project.

Throughout the participatory process, various qualitative methods are employed in fieldwork, including group discussions, workshops, drawing, making models, interviews, mapping, and genealogical and photographic methods. These tools and methods bridged theory and practice. This in-depth study process is an analysis into the relationship of the environment, culture, activity and space utility of dwellings to discover the changes and adaptations of the Karen houses and to provide clues to future ones. The specific innovative tools – workshops, making models and drawing – are a language system that offers me insight into understanding their dwellings. In addition, bringing them together into the workshops is an essential component of a collaborative learning process. These methods become a two-way interaction between the Karen and me. The collaboration is one of the most essential tools to exchange knowledge between the researcher and stakeholders to design and conduct all phases of research (Turnbull *et al.,* 1998). These processes enable us to see the possibilities, learn how to plan and develop the project, and be free to develop their unique land and dwelling solutions by applying the concept of a people-driven housing development process, in which the Karen themselves are the critical actors and the main solution-finders.

1.3 ORGANISATION OF THE DOCUMENT

This thesis is constructed in eight chapters, reflecting my work with the Karen people, learning from practice, reflecting on both methods and theory. Following this introductory chapter, Chapter 2 (**Participation and theoretical frameworks**) discusses the theoretical perspectives of this study on three issues: participation, culture and environment, and vernacular dwelling. These bodies of literature form the guidance of the study and help to clarify the key themes.

Chapter 3 (**Participatory research approaches and methods**) describes the research plan and methods. The study discusses how to frame the research, focusing on my experience of how to deal with field research in various ways. The discussion offers the essential form of participation in housing at each stage. This chapter also presents several data collection methods from the fieldwork, particularly visual methods and ways to communicate and build trust. This chapter ends with analysis and interpretation. The following chapter (**Livelihoods and dwelling security: the challenges of indigenous Karen people**) illustrates the cultural, political and social contexts of the research area. This chapter clarifies the circumstances of the indigenous people and the Karen in Thailand by explaining the history, general domestic life, social life and traditional beliefs of the Karen. The political contexts under the government policies are the crucial issue; for example, the movement of the Karen, land and forest rights, the relocation policy and World Heritage site. These challenge the rebuilding processes within the specific context.

Additionally, it is necessary to know what the Karen think about their dwelling spaces and environment, and how they orient themselves in house spaces. Chapter 5 (**Expression and material culture**) investigates the identity of the Karen by examining the artefacts and material culture. Photos were taken by the Karen of their important artefacts in houses. These clearly show the relationship between the Karen and the artefacts and material culture in various meanings and reasons.

Chapter 6 (**The process of creating dwelling**) offers a number of stories of the house building process that are associated with many factors: socio-cultural, economic, political and environmental issues. This chapter therefore reveals how the Karen create their houses within the regulations of the national parks. It discusses the social organisation, kinship groupings and the role of gender, identifying the characteristics and describing the culturally specific pattern of the community. Also, shortages, needs, materials and income are an essential foundational issue that reveals how and why they modify and rebuild houses. Furthermore, cultural factors indicate collective wisdom and tradition, which are the main ingredients of the building process.

Chapter 7 (**Beyond the dwelling design and building**) reflects on building dwellings at both individual and collective group levels, and how design and building elaborate the continuity and change of the elements of the houses. This indicates how design choice can be implemented in the context and what can be learned from their design and building. It includes investigation of the elements of the house, beyond the building and re-housing concept. The chapter ends by re-thinking after building houses what has been learned from collective building.

Chapter 8 (**Conclusion and reflections**) reflects on the participatory process output: the effectiveness of the participatory method while working with the Karen people. The chapter also discusses what we learn from the practice and vital insights into the

aspects of the working process based on the empirically practical methods. It also includes the contribution of the study and suggestions and implications of the findings. The challenges of the study and recommendations for future research are also provided at the end of the chapter.



CHAPTER 2: PARTICIPATION AND THEORETICAL FRAMEWORKS

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PARTICIPATION AND THEORETICAL FRAMEWORKS

I graduated as Bachelor and Master in Thai Architecture at Silpakorn University. The discipline aims to study the vernacular architecture, traditional architecture and other Thai architectural culture. I spent almost nine years studying at the university. In 2008, I obtained an Indian government scholarship to study in Agra, India. When I came back to Thailand, my friend who worked at the Community Organizations Development Institute (CODI) invited me to visit the low-income communities near my hometown, so I had an opportunity to observe and help my friends and low-income people to organise the meetings. Many months later, I got a full-time job as a community architect at CODI. A part of my responsibility was to train the people to design budgets, manage finances and design community layouts, as well as communicate with government representatives. I undertook many low-income housing projects covering many provinces in central Thailand. I worked together with social practitioners.

Working with low-income people made me interested in the participatory process and the housing process of the urban poor. I feel I can develop the living condition of the poor through the architectural process. Also, CODI is a place where I have learnt and understood the participatory design and planning processes.

In 2012, I left CODI to work in India, and I returned to Thailand in 2013 to work at Bangkok University. Now I try to think over the theory and practice from the university and CODI, such as vernacular architecture, culture, participation in housing and collaborative design. I try to integrate them to extend my body of knowledge. Here, Banggloy Karen village is the place to apply this knowledge. The challenge is to support the Karen in a way that allows them to lead the process. A participatory process is an approach and technique of design method that we use in this study and project.

This chapter will examine the key theoretical perspectives that can guide the research and practice. This study is concerned with a participatory process of working with the Karen community. The chapter thus aims to construct the conceptual framework to investigate the interconnection between the Karen house, culture, environment and participation, including how Baan Mankong and housing programmes work. This theme is applied to investigate the building process and provide a comprehensive understanding of participation in housing.

2.1 WHAT IS PARTICIPATION?

Participation is a key approach to working with the Karen and fundamental to this thesis. It is considered a reflection of the building and design processes, and also the self-organising practice of participants. The term “participation” has been evolving and developing since gaining international recognition in the 1960s (Claridge, 2004) and achieved wider acknowledgement during the 1970s (Stiefel and Wolfe, 2011). Thus, today, participation is not a new concept; it is widely used in various disciplines. However, it is often seen to be employed in planning and community development. It may be seen that modern participation means the involvement of the community in the implementation of a project to increase the acceptance and efficiency of use (Lane, 1995). Hamdi (1991, 2004, 2010) notes that participatory development is the essential approach for empowering communities to review and improve themselves. Importance of participation increases gradually in developing countries, in that people are affected by many development projects. Then, stakeholders need to be involved in development decisions, implementation and benefits (Holcombe, 1995). As mentioned above, unsurprisingly, the community development movement of the 1950s and 1960s was a source of inspiration for participation theory today (Claridge, 2004).

2.1.1 Definition of participation

Participation is adapted to apply in different ideological frames. Different actors use participation in different ways and provide different definitions (Nelson and Wright, 1995) depending on the situation. Thus, we usually see a variety of definitions, but important questions are how we define participation, whom it is expected to involve and what is expected to achieve. Generally, participation refers to the process of decision-making, in which people express their views and influence decisions (Bratteteig and Wagner, 2014). So, every meaning of participation expresses a decision-making role and it is usually applied to community and city development.

Many scholars attempt to define participation. For example, Lawrence (2006: 282) mentions that *“the word ‘participate’ [is] simply defined as ‘to share or take part’, ‘participatory’ has become a term loaded with social, ideological, political and methodological meaning”.* Sheng (1987) argues that participation assumes an activity

in which the community takes part and the involvement of at least one other party, usually a government agency or a non-governmental organisation (NGO). Kelly (2001: 15) mentions that *"participation is a range of processes through which local communities are involved and play a role in issues which affect them".* Thus, the power shared in decision-making varies according to the level of participation, and this process tries to make all participants have equal voices.

On the other hand, one view of participation is to get people to agree and to go along with a project that has already been designed for them. This shows that a working system of participation is not proper for all projects, because people do not have a chance to engage with the project to identify themselves with the assets. Saxena (1998: 111) suggests that *"participation should include the notions of contribution, influencing, sharing or redistributing power and of control, resources, benefits, knowledge, and skills to be gained through beneficiary involvement in decision-making".*

Cornwall (2008: 269) argues that *"an infinitely malleable concept, 'participation' can be used to evoke – and to signify – almost anything that involves people. As such, it can easily be reframed to meet almost any demand made of it"*; whereas Sanoff (2005: 63) notes that *"participation means different things to different people depending on the issue, its timing, and the political setting in which it takes place".* In a variety of definitions of participation, it is possible to summarise that participation has different meanings depending on the participants, time, circumstances, issues and objectives. However, I would like to summarise by borrowing a definition that is mentioned by the World Bank (1996: 3), *"participation is a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them".*

2.1.2 Why participation?

Many scholars (Geenwood *et al.,* 1993; Wallerstein, 1999; Hamdi, 1991) mention that the aim of participation is to empower participants through the co-generation of knowledge with facilitators or researchers, and also increase the ability to use knowledge. Similarly, Richards *et al.* (2004) note that participation can increase public trust in a decision and in civil society. Furthermore, stakeholders can teach each other through creating new relationships within communities. Social learning is a mechanism that can deliver pragmatic benefits from participation and creative solutions through reflective deliberation.

In terms of a research project, Reed (2008) and Hansen (1994) mention that participation may make research more robust by providing in-depth information inputs. A participatory process leads to a search for new ways for participants to work together. Participation can transform relationships, changing people's perceptions of

each other's views, and enabling them to identify new ways of working together (Stringer *et al.,* 2006). Participation can foster social learning. It also creates a sense of ownership over the process and outcome (Reed, 2008) by encouraging diverse stakeholders to work together in the framework (Stringer *et al.,* 2006).

From a political view, Guijt and Shah (1998) state that participation is a means to increase the involvement of socially and economically marginalised people in decision-making over their own lives. Political concerns may be used to justify participation, such as the wish to empower previously marginalised groups (Stringer *et al.,* 2006).

Pretty (1995: 1251) mentions that two overlapping schools of thought and practice have evolved: *"One views participation as a means to increase efficiency, the central notion being that if people are involved, then they are more likely to agree with and support the new development or service. The other sees participation as a fundamental right, in which the main aim is to initiate mobilisation for collective action, empowerment and institution building".* Participation is a mechanism that encourages a diversity of engagement. It leads one to see other perspectives. Harder *et al.* (2013) state that the notion of participation is significant to a diversity of professions, such as architect, town planner, community developer or farmer. It has become a focused debate among academics and practitioners in diverse fields.

2.1.3 Typologies of participation

As mentioned, participation is applied in many disciplines. It can therefore indicate ideological, social, political and methodological meanings in various ways (Lawrence, 2006). In 1969, the publication of Arnstein had an impact on understanding citizen participation for developed countries. She proposed a ladder of citizen participation; it was considered one of the classic participation theories, providing a useful starting point in considering different levels of involvement. She illustrates eight rungs on a ladder of participation to analyse participatory design corresponding to the formal planning and decision-making process (Arnstein, 1969). Her ladder distinguishes between citizen power and forms of tokenism and non-participation. Sheng (1990), however, argues that the weakness of Arnstein's ladder is the inconsistency of the criteria to distinguish forms of participation. He further mentions that there is no difference in the locus of power between placation, consultation, informing, manipulation and therapy, where the power remains in the control of the authorities. These five rungs merely demonstrate the techniques that are still employed by authorities to deal with communities.

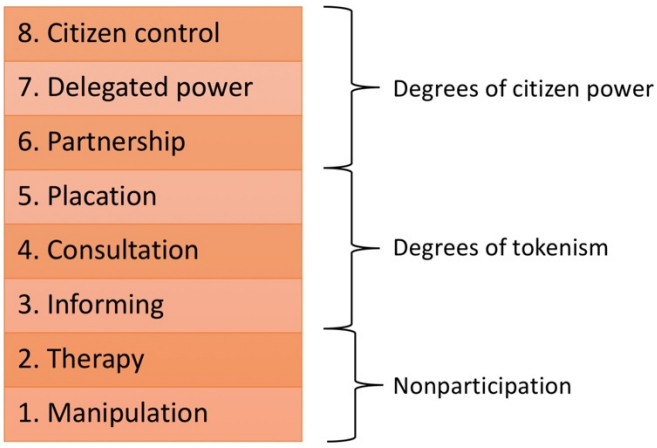


Fig 2.1 Arnstein's ladder of citizen participation for developing countries
Source: Arnstein (1969: 217)

In 1996, Choguill revised Arnstein's concept concerning citizen power and the redistribution of power. This enables the have-not citizen, presently excluded from the political and economic processes because of the misleading results of a development context and a tentative classification of the evaluation of participation within developing countries. She is concerned that community participation does not enable people to satisfy their needs and is also a means to influence decisions on the political issues that affect them (Choguill, 1996: 431). Choguill's study proposed a new ladder for developing countries by corroborating the findings of a great deal of Arnstein's work.

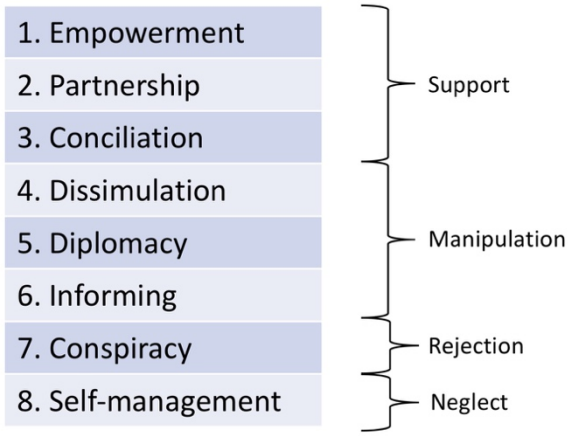


Fig 2.2 A ladder of community participation for developing countries
Source: Choguill (1996: 433)

The highest rung is empowerment, reflecting the willingness of the government and other power holders to provide comment with decision-making powers, while self-management expresses the daily struggle for one's livelihood and takes place without the interference of the government actors (Schinkel *et al.,* 2014: 18). On the other hand, much new knowledge was reproduced by using Arnstein's concept as a foundation and a role model; for example, Hurlbert and Gupta (2015) split the ladder to present it as both a diagnostic and evaluation tool for tackling policy problems.

Additionally, there are a variety of participatory models that can be employed with community development; for instance, Kusumanto *et al.* (2007) propose three types of interaction with stakeholders, such as extractive use, co-learning and co-management. Davidson (1998) develops the wheel of participation as an alternative metaphor to define and encourage levels of citizen participation in community planning and development.

In 1995, Pretty proposed a typology making clear each type of participation. Cornwall (2008: 271) mentions that *"what Pretty's typology helps make clear is that the motivations of those who adopt and practise participatory approaches are an important factor – if by no means the only one – in shaping interventions"*. It can be seen that his typology reaches "manipulative participation", where participation is simply pretence and participation has no power. The highest level is self-mobilisation. It is a point that people can control how resources are used.

Table 2.1 Pretty's Typology of Participation

Type	Characteristics of each type
Manipulative participation	Participation is simply a pretence, with 'people's' representatives on official boards, but who are unelected and have no power.
Passive participation	People participate by being told what has been decided or has already happened. It involves unilateral announcements by an administration or project management without any listening to people's responses. The information being shared belongs only to external professionals.
Participation by consultation	People participate by being consulted or by answering questions. External agents define problems and information-gathering processes, and so control analysis. Such a consultative process does not concede any share in decision-making, and professionals are under no obligation to take on board people's views.
Participation for material incentives	People participate by contributing resources, for example, labour, in return for food, cash or other material incentives.
Functional participation	Participation seen by external agencies as a means to achieve project goals, especially reduced costs. People may participate by forming groups to meet predetermined objectives related to the project.
Interactive participation	People participate in joint analysis, development of action plans and formation or strengthening of local institutions. Participation is seen as a right, not just the means to achieve project goals. As groups take control over local decisions and determine how available resources are used, so they have a stake in maintaining structures or practices.
Self-mobilisation	People participate by taking initiatives independently of external institutions to change systems. They develop contacts with external institutions for resources and technical advice they need, but retain control over how resources are used. Self-mobilisation can spread if government and NGOs provide an enabling framework of support. Such self-initiated mobilisation may or may not challenge existing distributions of wealth and power.

Source: Pretty (1995: 1252)

Meanwhile, White (1996) proposes a diversity of form, function and interests within the term *participation*. He distinguishes four major types of participation and the characteristics of each. The first column shows the form of participation. The second column shows the interests in participation from the "top down": that is, the interests that those who design and implement development programmes have in the participation of others. The third column shows the perspective from the "bottom up": how the participants themselves see their participation, and what they expect to get out of it. The final column characterises the overall function of each type of participation.

Table 2.2 Interest in Participation

Form	Top-Down	Bottom-Up	Function
Nominal	Legitimation	Inclusion	Display
Instrumental	Efficiency	Cost	Means
Representative	Sustainability	Leverage	Voice
Transformative	Empowerment	Empowerment	Means/end

Source: White (1996: 7)

As can be seen in Table 2.2, this demonstrates the different interests at stake in various forms of participation. White focuses more on a way of working out how people make use of participation, which is an essential tool to investigate ideas about what and how each stage of participation does.

Table 2.3 Cornwall's Typology of Interest

Form	What "participation" means to the implementing agency	What "participation" means for those on the receiving end	What "participation" is for
Nominal	Legitimation – to show they are doing something	Inclusion – to retain some access to potential benefits	Display
Instrumental	Efficiency – to limit funders' input, draw on community contributions and make projects more cost-effective	Cost – of time spent on project-related labour and other activities	As a means to achieving cost-effectiveness and local facilities
Representative	Sustainability – to avoid creating dependency	Leverage – to influence the shape the project takes and its management	To give people a voice in determining their own development
Transformative	Empowerment – to enable people to make their own decisions, work out what to do and take action	Empowerment – to be able to decide and act for themselves	Both as a means and an end, a continuing dynamic

Source: Cornwall (2008: 273)

In 2008, Cornwall adapted White's idea by adding the dimension of how participation is seen by the participants (Bratteteig and Wagner, 2014). Cornwall (2008) concentrates on who participates and what they receive and do for what. Cornwall's typology shows a set of generalised interests such as legitimation, efficiency, sustainability, inclusion, cost, leverage and empowerment. In reality, when we undertake a project, the interests of participants are various and specific depending on the objectives of the project. Moreover, sometimes these generalisations can be in conflict with each other, which may not be clear, and need to be modified.

Meanwhile, Reed (2008) categorises typologies of participation to develop understanding of the difference between interpretation, approaches, methods and contexts in which they are most appropriate. As can be seen in Table 2.4, many academics attempt to develop typologies and offer many choices both methods and approaches. These indicate available approaches that can adapt appropriately to the purpose of the work in the context. However, the World Bank (1996) notes that the critical characteristic of a participatory approach is the collective stance, so that stakeholders influence and share control over the decisions that are made. Therefore, it should be borne in mind that applying an appropriate typology to work in a particular project relies on circumstances.

Table 2.4 Typologies of Participation

Basis of Typology	Example
Typology based on different degrees of participation on a continuum. Numerous alternative terms suggested for different rungs of the ladder (e.g. Biggs, 1989; Pretty, 1995; Farrington, 1998; Goetz and Gaventa, 2001; Lawrence, 2006)	Arnstein's (1969) ladder of participation. Sometimes presented as a wheel of participation Davidson (1998)
Typology based on nature of participation according to the direction of communication flows	Rowe and Frewer (2000)
Typology based on theoretical basis, essentially distinguishing between normative and/or pragmatic participation	Thomas (1993), Beierle (2002)
Typology based on the objectives for which participation is used	Okali *et al.* (1994), Michener (1998), Warner (1997), Lynam *et al*. (2007), Tippett *et al.* (2007)

Source: Reed (2008: 2419)

2.1.4 How does a participatory process work?

What is a good practice of participation? This question is often raised between individual practitioners and stakeholders. Sanoff (2005) mentions that participation requires sufficient planning time and clearly stated goals; because of tight time and financial constraints, structured participatory techniques have proven to be successful. He therefore classifies participation techniques into three major categories: awareness methods, group-interaction methods and indirect methods.

On the other hand, participation should be considered as early as possible and throughout the process. Relevant stakeholders need to be analysed and represented systematically. Also, clear objectives for the participatory process need to be agreed among stakeholders at the outset (Reed, 2008). The World Bank (1996) demonstrates a willingness to work collaboratively with stakeholders in carrying out the steps; they undertake the following:

- Identify the strength and weakness of existing policies and service and support systems; that is, the stakeholders conduct analysis and diagnosis collaboratively.

- Decide and articulate what is needed; that is, the stakeholders collaboratively set objectives.

- Decide in pragmatic terms, directions, priorities and institutional responsibilities; that is, the stakeholders collaboratively create a strategy.

- Develop or oversee development of project policies, specifications, blueprints, budgets and technologies needed to move from the present to the future; that is, the stakeholders collaboratively formulate project tactics.

Furthermore, tools can help to organise the workshop and meetings, such as post-it notes and flip-charts, together with site visits where the participants could use the landscape as their visual aid. Sometimes we can begin with a small group or a focus group to create opportunities to socialise with each other. This helps and generates relationships and enhances relationships between participants (Reed, 2008). Furthermore, to obtain successful use of participation, practitioners are required to have many skills, particularly communication, facilitation and conflict negotiation (Scoones, 2011); the implications of working emphasise processes rather than outputs, diversity rather than conformity, attitudes rather than quantifiable targets (Chambers and Guigt, 2011: 120).

2.2 COMMUNITY PARTICIPATION IN PRACTICE

2.2.1 The meaning of community

What is community? This is not an easy question because there is no single definition. Community typically implies that there are relationships between a group of people, usually in a certain locale (Bruhn, 2005: 11). The idea of community has always been associated with cohesion, belonging, and rootedness that influences how people live and relate to each other (Day, 2006). Also, there are many aspects of community such as communities of place, culture, interest, practice and resistance. This part therefore aims to review the arguments that can help to make sense of what community is in various contexts.

First of all, community is a social and cultural unit. Little (2002: 7) mentions that "*community is a key ingredient in the complex matrix of social organisation.*" Sheng (1987) states that community is defined as a group of people with face-to-face contact, a sense of belonging together and shared interests and values. Community also shares context of meaning and a sense of purpose and justice, with rules and routines (Handi, 2010). Day (2006: 16) argues that "*traditional conceptions of community tend to emphasise primordial attachments to the family and ties of kinship and place*." He further mentions "*a perception of community as a particular kind of social structure or environment, with some very specific characteristics, with certain typical patterns of action and belief*." Therefore, religion and belief are a key source that brings people together in a network. It serves as a social resource producing social connections (Bruhn, 2005). Similarly McMillan (2011) views community as responsibility and resources of people. However, Hamdi (2010) argues that community is not just social and organisational but also spiritual. Hence, community is a social construction. It connects people and fosters meaningful human interdependence in social collections (Adelman & Frey, 1997). It also is more than the set of people; it has a variety of shapes.

Moreover, community is a spatial unit. This also refers to sharing a locality. Frazer (1999) mentions that community is a locality with settled inhabitants and a stable social structure consisting of networks of complex relations. The community is a place where people come to interact and live. Therefore, it is clear that the community acts as both a social space and a social structure, and also represents a physical area where experiences and resources are shared. Another viewpoint is, community as an economic unit. It is a place where people share an economic interest and reveals information about their social and economic structures. For example, land use of a community is a financial and productive asset. It could encourage economic growth, creating employment opportunities for people (Hamdi, 2010). In terms of economic relationships, it is defined as people practicing similar economic activities to make their

livelihoods (Kepe, 1999). In rural communities, they also share resources with each other such as land and water. In other words, a community provides for an economic and socially functional life.

In terms of a sense of community, in a seminal work, McMillian and Chavis (1986) identify four aspects of the sense of community. The first is the sense of 'membership', that is being a part of the group. The second aspect is 'influence'. The third is the 'integration and fulfilment of needs'. The last aspect is 'a shared emotional connection' which people feel about participating in the community. It is about feeling, knowing or the degree of comfort that people participate in activities toward a common goal (Sarason, 1974). Hamdi (2010: 32) argues that "*belonging is not just about location but about meaning and association – the kind that offers a multiplicity of opportunity for social change, informal encounters in transit and collective ownership*." Similarly, Wenger et al (2002: 4) mention that "*communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis*." They further note that

> *These people do not necessarily work together every day, but they meet because they find value in their interactions. As they spend time together, they typically share information, insight and advice. They help each other solve problems. They discuss their situations, their aspirations, and their needs. They ponder common issues, explore ideas, and act as sounding boards. They may create tools, standards, generic designs, manuals, and other documents – or they may simply develop a tacit understanding that they share* (Wenger et al., 2002: 4–5).

Above all, community members are practitioners who share experiences and practices. For the Karen, a community of practice enables the Karen to take collective action for managing the rebuilding process. Consequently, it could be concluded that community is the relationship of a group of people who shares some common goals, values, feelings, hopes, way of life and economic interests, mutual commitment and responsibility. They also share a context of meaning and share a sense of purpose, with rules and routines. However, the meaning of community for the Karen does not only mean a group of people with face-to-face contact who share stories, goals, values and experiences, but is also a place which includes the natural environment and resources such as forests, hills, rivers and land associated with the way of life. Thus, in this sense, rebuilding houses is not just about creating a place for living, but about building community and empowering people. However, in all these aspects, we need to know something about the structure of the Karen community. How can we engage positively with the Karen community? Thus, we have to think about what we can learn about relationships in and between Karen families; how participation can change the nature of the place, cultivate community and, with it, the livelihoods and sense of belonging that come with ownership (Hamdi, 2010).

2.2.2 Community Participation

Generally, participation is an activity in which the communities take part and there is involvement of at least one other party. It helps participants reach decisions that are equitable and efficient and widen choice (Hamdi, 2010). Combining the meanings of community and participation, Amundsen (1982) mentions that community participation is a prerequisite to community acceptance of public work projects and a framework for participation must be structured around the concept of representative and participatory democracy. Sheng (1990: 56) notes that *"community participation refers to involvement by communities as a whole as well as by its individual members".* Sanoff (2005: 62) states that *"community participation is an attitude about a force for change in the creation and management of environments for people".* Hamdi (2010) mentions that community participation represents the shift from a situation of providing for the poor to empower them to provide for themselves, it can also create opportunity for organisations to emerge, providing continuity.

The United Nations defined community development as *"the process by which the efforts of the people themselves are united with those of governmental authorities to improve the economic, social and cultural conditions of communities, to integrate these communities into the life of the nation and to enable them to contribute fully to national progress"* (UNDESA, 1971: 2). Sheng (1990) further notes, by referring to UNDESA (1971), that community development has two essential elements: first, the participation by people in efforts to improve their level of living with as much self-reliance as possible on their initiatives. Second, the provision of technical and other services in ways which encourage initiative, self-help and mutual help and make these more effective. In terms of community-based participatory research, it has been established and maintained as a basis for successful collaboration between the outside researcher and the community (Kapuire *et al.,* 2015).

However, Botes and Van Rensburg (2000: 43) argue that *"community participation, in some instances, is not a genuine attempt to empower communities to choose development options freely but is rather an attempt to sell preconceived proposals and then participation process often begins after project have already been designed".* This shows that community participation is often used by governments as a means of legitimising the political system and as a form of social control, and assumes the notion of common purpose and good. Many community developments are faced with the failure to reach a goal. This is about the lack of community participation. They often accuse community participation of needing funding to support activities. In fact, participation can do without external funds. Sheng (1987: 78) argues that *"community participation is often not successful in such projects due to most government policies not [being] conducive to community participation".* Community participation is often managed by a host of consulting agencies on behalf of pre-designed, party-directed

planning programmes and is quite clearly not encouraged to empower local communities (Williams, 2006: 198).

Botes and Rensburg (2000) expose the obstacles to community participation that can occur from internal and external factors. For example, the paternalistic role of development professionals, the inhibiting and prescribing role of the state, the over-reporting of development successes, a bias towards hard issues, conflicting interest groups within end-beneficiary communities, gatekeeping by local elites, excessive pressure for immediate results; the accentuation of product at the expense of process and the lack of interest by the public in becoming involved. On the other hand, they also demonstrate that people who need to become involved in participatory development should demonstrate an awareness of their status as an outsider, respect the community's members, promote co-decision-making, believe in the spirit of people, listen to community members and empower communities to share equitably in the fruits of development.

To sum up, community participation allows people to gain access to information with regard to the method used to gather it; this is a critical factor that promotes community development actualising the capacity of community to activate its human resources, solve problems and promote social empowerment (Talo *et al.,* 2014). Hence, it can be said that community participation is concerned with community member engagement and active involvement in issues that affect people's lives and communities. Thus, the success of community participation does not depend on an individual, but all participants and a holistic view of the community programme's cohesion.

2.3 PARTICIPATION IN DESIGN

2.3.1 Participatory design

Participatory design is an approach and technique of the design method. It demonstrates the involvement of different types of dwellers, reflecting the social process. In the early stages, participatory design is designed and developed to guide the advancement of technology development (Kang *et al.,* 2015). An aim of participatory design is to gather stakeholders such as designers, clients, users and others at each step of the design process to exchange design ideas (Kang *et al.,* 2015). This leads to the development of ideas and design concepts. Both ideas and understanding come together as a result of verbal exchange (Luck, 2003). The approach can be implemented in many ways, including workshops, ethnography, cooperative prototyping, mock-ups, card sorting and user design (Kang *et al.,* 2015). For example, in a workshop, people engage in the social process and play a role in examining the problem-raising, discussion and decision-making processes that are part of the design process.

A participatory process intends to clarify goals and needs, designing coherent visions for change. Luck (2003: 523) stresses that *"participatory design as a process [has] many approaches and techniques".* Simonsen and Hertzum (2012: 10) mention that

> *participatory design undoubtedly has a lot to offer. For example, combining business-oriented and socially sensitive perspectives, initiating participation and partnerships with different stakeholders, using ethnographic analyses in the design process, establishing mutual learning processes with users from the work domains in question, conducting iterative experiments aimed at organizational change, managing stepwise implementation based on comprehensive evaluations, and providing a large toolbox of different practical techniques.*

Many people use game metaphor to understand or organise participation, as Wittgenstein mentions that the notion of language-game constitutes human practices (Brandt, 2006). Thus, various voices contribute to a productive way of seeing a participatory design. The democratic principle underpinning participatory design is expressed through participants and users discussing their potential equal contribution to the design outcomes (Luck, 2003). In this perspective, participatory design is more than a collection of the design methods that have an influence on the design: *"It also has a human dimension and can engage the people who form the community in the process"* (Luck, 2003: 523). It is a social process that involves communication, negotiation and making compromises (Brandt, 2006).

2.3.2 Participation in architectural design

A designer or facilitator often uses a participatory design process with many approaches and techniques to enable the participants to develop an understanding of itself. It is more than a collection of design methods to influence the built form, and it also has a human dimension that engages people in the process, with users acting as participants in various activities and situations (Luck, 2003, 2007). Luck (2010) further mentions that the meaning of coordination of design is plural phenomena and a multi-faceted concern in construction; this happens in the details of interaction through the self-organising practices of the participants.

Participation in the architectural design process enables designers and their clients to assess a large number of design hypotheses and priorities and simulate them prior to the planning of a building (Lawrence, 1985). Luck (2003: 524) states that *"participatory design facilitates the exchange of information and enhanced the designers' understanding of the needs and expectations of the future building areas".* Turning to another positive aspect, *"participatory projects can be empowering processes resulting in empowered outcomes"* (Hussain, 2010: 100).

Participation is an effective tool to get people involved in the design process. Design ideas will arise in collaboration with participants from diverse backgrounds. Designer

and practitioners will spend time with users in their environment, and then share ideas. Luck (2010: 641) mentions that *"the concept of design coordination embraces design information, activities that produce design information, and design activity as it happens on a project".* Carroll and Rosson (2007) propose that two radical propositions should be integrated into a participatory design; moral and pragmatic propositions, which become a social negotiation among partners, and the designers' responsibility in the process is to faithfully translate, collaborate and respond to the concerns of the other stakeholders. As such, it can be said that participation in architectural design is not merely for the purposes of achievement, but also to engage people in meaningful and purposive adaptation to their environment (Sanoff, 2000, 2007); and it also illustrates a sphere of design activity.

2.3.3 Limitation of participation

Participation is widely used at both community and national levels. Meanwhile, many people fail to apply a participatory process. A concern of stakeholders whether they have unequal voices, as participation may reinforce existing privileges and group dynamics may discourage minority perspectives from being expressed (Nelson and Wright, 1995). Power inequalities within groups are a barrier. *"It is necessary to consider how inequalities in age, gender and background can be overcome to enable stakeholders to participate on the level playing field"* (Reed, 2008: 2422).

Furthermore, a significant challenge is that participation uses enormous time and may endlessly delay and circularise decision making (Botes and Rensburg, 2000). Sarkissian *et al.* (1997) also consider that participation may include time-consuming processes and financial costs, lack of skills among proponents and planners and uncertainty about the outcome of public involvement. Participation generally takes time in a process, maybe many months and years, because of differences of knowledge and understanding between researchers and participants. Thus, a great concern of participation is the time to be taken and the power relations between the stakeholders in the process. The adaptive management literature emphasises the need for iterative learning in long-term participatory processes in which participants can investigate the outcomes of decision-making and actions (Gunderson and Holling, 2002). One last thing that participatory methods cannot guarantee is the success of any project (Biggs and Smith, 1998). Thus, next I would like to discuss the work of CODI and its challenges.

2.4 CODI, BAAN MANKONG AND HOUSING PROGRAMME

> *The CODI's goal is to build a strong civil society by empowering community organisations and social networks and they have a motto "Every region should be stable, every community should be strong, and the people should be happy". One of the most significant approaches of CODI[7] is to strengthen community organisations.*
>
> (CODI, 2018)

2.4.1 What is the Baan Mankong programme?

In 2003, the Thai government announced two new programmes for the urban poor. The first was the *Baan Mankong* programme, which channels government funds in the form of infrastructure subsidies and housing loans to improve poor communities. The second is the *Baan Ua Arthorn* programme, which is a part of the National Housing Authority, to construct and sell ready-to-occupy flats and houses for low-income households (Boonyabancha, 2005).

The Baan Mankong programme is a part of CODI's strategy, established to support low-income communities to design and manage their community organisations and networks. Therefore, the targets of Baan Mankong are low-income settlements lacking in security of tenure; this programme signified a change in strategy, from a supply-side policy to a demand-driven policy (Archer, 2010).

How does the Baan Mankong programme differ from conventional approaches? Boonyabancha (2005: 27), a former director and founder of CODI, mentions concerning this programme that

> *Urban poor community organisations and their networks are the key actors, and they control the funding and management. It is demand-driven by communities rather than supply-driven. The programme does not specify physical outputs, but provides flexible finance to allow community organisations and local partners to plan, implement and manage directly.*

This programme promotes more than physical upgrading. It helps to retain social structures and encourage managerial systems and confidence among poor communities. It also aims to improve city-wide development by reaching all low-income communities (CODI, 2018).

[7] In 2000, the Urban Community Development Organization (UCDO) officially merged with the Rural Development Fund to become a new public organisation called the Community Organizations Development Institute (CODI). The government mandate that brought CODI into existence allowed CODI to operate as an independent public organisation, providing greater possibilities, additional flexibility, wider linkages and expanded possibilities for collaboration between urban and rural group (Boonyabancha and Kerr, 2018).

2.4.2 How does the Baan Mankong programme work?

> *The Baan Mankong Programme encourages existing slum communities to form co-ops and develop their housing in a collective way; each participating community would end up having a collective land title. This method is designed to discourage speculators from buying off individual housing units from the poor and selling them out to higher income groups. Collective housing provides the security for low-income families so that they can have access to jobs in the city – usually as day laborers and street vendors - and where they can have the opportunity to get out of poverty.*
>
> (CODI, 2018)

The heart of the Baan Mankong programme is people, and it works alongside communities by offering tools, technical assistance and funds throughout the process; for example, by providing funds in the form of infrastructure subsidies and soft loans directly to poor communities. It was therefore started with the creation of community saving activities (Boonyabancha, 2009). This development process allows stakeholders to plan and manage solutions to their housing problems. Therefore, community members are the primary actors for the success and sustainability of the project.

Table 2.5 The Baan Mankong programme

Baan Mankong Programme
1. Identify the stakeholders and explain programme
2. Organise network meetings which may include visits from people in other cities.
3. Organise meetings in each urban poor community.
4. Establish a joint committee to oversee implementation.
5. Joint committee holds a meeting with representatives from all urban poor communities.
6. Survey is organised to cover all communities with information collected about all households, housing security, land ownership, infrastructure problems, etc.
7. From the survey, develop a plan for the whole city.
8. Support community collective saving.
9. Select pilot projects on the basis of need, community's willingness to try them out and learning.
10. Prepare development plans for pilots; start construction.
11. Extend improvement processes to all other communities.
12. Integrate these upgrade initiatives into city-wide development.
13. Build community networks around common land ownership.

Source: Boonyabancha, 2005

Of course, a participatory process is a significant approach that CODI applies to all projects. Additionally, one of the most important tools in this people-driven upgrade process is flexible and accessible finance (CODI, 2018). When this financial resource is available, people can see possibilities and can organise their savings groups. They learn how to plan and develop projects and can be free to develop their own unique land and housing solutions. Then, flexible finance can link with collective saving groups. They also learn together to manage funding for the projects. Table 2.5 shows

the sequence of the working process of the Baan Mankong programme. However, in the case of Banggloy village, they did not follow these steps.

Furthermore, as mentioned, the participatory process is the critical approach; thus, another important requirement to join the upgrade programme is that communities have to find ways to do things together, and that everyone in the community has to be included in the process, as a way of creating and strengthening their organisations (CODI, 2018). The participatory process of Baan Mankong exists not only at the community level but also the city-wide level (Archer, 2012); it aims to increase citizen participation in urban governance. The Baan Mankong programme also supports the involvement of a growing number of community architects, planners and design students to assist communities to develop their settlement layout plans and housing designs (Boonyabancha and Kerr, 2018). This helps communities to visualise new possibilities (CODI, 2018).

Archer (2010) mentions that this programme has benefits for the state, in that this approach can take some of the burdens of providing housing off the government. However, working with local people, it often sees as many problems. Saeung (2012) mentions the problems of the applied strategies of the programme. For example, low-income people do not have enough knowledge of the working process and lack building technology. Also, in some projects, building materials are below standard and the building code is not available for these projects. Some projects are not finished on time. In the same way, Bhatkal and Lucci (2015: 28) mention certain challenges of Baan Mankong: *"Baan Mankong supports slum populations, it does not prevent the formation of new slums. The poorest people may not benefit from the programme. The sustainability of the programme could be at risk due to financial constraints and political instability".* These are challenges that we might be faced with and think over.

2.4.3 The role of Baan Maankong for the Karen

In 2014, the Karen housing project obtained funding through the Baan Maankong programme. The concept of the programme is a people-driven housing development process, in which the Karen are the key actors and solution-finders in the project and research. In the case of Banggloy village, it was placed in the type of on-site upgrading that improved the physical environment in an existing community, including enhancing the quality of life. The programme provides the Karen themselves with an opportunity to use the funding to solve a housing problem. Altogether, a challenging question is how this working process differs from those of the urban poor communities. The programme challenges the Karen's ability to not only control funding and management, but also build the houses as a team, which makes the funding go much further. In other words, the programme not only focuses on building the houses, but it also creates the people's process, as a lesson learned along the way.

2.5 INVESTIGATING CULTURE AND ENVIRONMENT

This part aims to give some sense of what culture means. How do we understand culture? We can see what people do or not do, but what do they feel? Delaney and Kaspin (2011: 21) note that

> *when anthropologists conduct fieldwork, what they are really doing is collecting clues to help solve the mystery of culture: what do these people do things the way they do? What are their motivations and goals? How are they constrained by cultural definitions of their race, gender, age, class, and so on?*

Also, to study Karen culture, I focus more on the material culture and artefacts to understand the Karen people and their thought, through which artefacts are given meaning, how they use them and how these materials, culture and artefacts are linked to their life.

2.5.1 What is culture?

Culture is one of many complex concepts that have a wide range of meaning. Culture is sometimes understood as the way of life (Williams, 1985). Bennett (2015) argues that culture is the whole pattern or configuration of values and meanings in society and the form of an integral part of social life. Altman and Chemers (1986) mention four groups within the definition of culture: first, it refers to beliefs and perceptions, values and norms, customs and behaviours of a group or society, including what people believe to be true of the world and their environment. Second, the term "culture" is used to indicate that cognitions, feelings and behaviours are shared among a group of people in a consensual way. Third, the term implies that these shared beliefs, values and styles of behaviour are passed on to others. Fourth, a society's values, beliefs and practices involve more than mental and behavioural processes; culture appears in objects and in the physical environment.

Jabareen (2005: 134) argues that *"the concept of culture and its manifestation framework appears not merely in people's perceptions, beliefs, values, norms, customs and behaviours, but also in the design of objects and the physical environment including houses and environments".* Rapoport (1987) notes that culture is defined as a way of life typical of the group. He further mentions that culture may be about a group of people who have a set of values and beliefs that embody ideas and are transmitted to members of the group through enculturation. These indicate that there cannot be a single definition of culture in this study. I will focus particularly on the process of culture that can be adapted to use in housing research. Next, I will focus more on material culture to see how it can be applied to investigate the Karen's life.

2.5.2 Material culture

A study of material culture began with interest in artefacts in the field of archaeology. It was almost the only field of knowledge that had a keen interest in artefacts to reconstruct the way people lived in the past (Aronin and Hornsby, 2018). Furthermore, anthropology, ethnology and ethnography also have a long-standing interest in exploring objects (Deetz, 1977 cited in Aronin and Hornsby, 2018). The objects (or artefacts) include everyday life objects such as food and utensils, furniture and crafts, tools and buildings (Aronin and Laoire, 2013). Thus, material culture has historically occurred within a framework of social purpose (Buchi, 2002: 13). Tilley (2006) mentions that material culture indicates what people thought of themselves and their lives and identities through the medium of different kinds of things. It studies the relationship between people and things.

In the social sciences, material culture is a term that refers to the relationship between artefacts and social relations (Aronin and Hornsby, 2018). We can understand society through these things or artefacts in a way in which people create it. It reflects the relationship between society, thought and development. Material culture is a fundamental component of human culture in general, and just as the concept of culture has hundreds of potential definitions and manifestations and is never just one entity or thing, so has the material component of culture (Tilley, 2006: 4).

In the same way, Aronin and Laoire (2013: 227) note that *"material culture is the realm of physical items, produced by humans as well as events and spaces interconnected by and with local and global mentality, culture, tradition and social life". "All produced by humans and interconnected by and with local and global mindset, culture, tradition and social life"* (Aronin and Hornsby, 2018: 2). Thus, an important aspect of material culture is the reflections of the nation's mentality, tradition, values, beliefs and social life (Wlosowicz, 2018).

It can be said that material culture indicates the existence of interaction, the interrelationship between objects and beliefs, objects and the way of life, objects and human behaviour, objects and identity (Aronin and Laoire, 2013: 228). Artefacts are recognised as a mirror of culture (Bronner, 1985). The realm of material culture embraces spaces, dwellings, buildings and landscape. It is also seen as the cultural landscapes that people create regarding tradition and lifestyle (Marshall, 1981). It represents a form of group or subjective vision reflecting culture, belief, attitudes and values explicitly.

2.5.3 Physical environment

The relocation of the Karen community from the original land to an allocated piece of land influences the building process regarding the change of physical environment. In

terms of the environment, many studies of Rapoport (1969, 1970, 1977, 1987, 2002, 2006) deal with the concept of environment. For instance, he points out that the environment can be conceptualised as a system of settings within which human life takes place. These systems of setting consist of relations between people and people, people and things, and things and things. In the case of the physical environment, it can be divided into the natural environment and the built environment. *"Physical environment refers to places and geographical features such as mountains, oceans or valley, conversely, built environment refers to the results of people's alterations of environments such as home, communities or farms"* (Altman and Chamers, 1986: 4). Lawrence (1990: 454) argues that *"built environment is an abstract concept which explains the products of creating human activity, referring in the broad sense to any physical alteration of the natural environment from hearths to cities through construction by humans".* Similarly, Altman (1993) argues that the physical environment is more than a behavioural mechanism and the physical environment is also salient in placemaking or the establishment of a home. He also shows several examples that place and objects symbolise and make salient the bond between people, reflect unique individual and personal histories, and display significant events in their joint past.

How does physical environment influence dwellings? As we know, building design requires fundamental knowledge based on an interaction between people and the environment. Rapoport (1983: 250) notes that the man–environment relation approach is a tool to aid in programme design based on generalisation by using the broadest possible evidence such as historical periods, cultural traditions and forms of design. Undoubtedly, the design environment thus influences human actions, well-being and social life in numerous ways (Næss, 2016); nonetheless, the impact of change on the built environment depends on many factors such as the socio-cultural factor.

Rapoport (1987: 11) mentions that *"the combination between design and environment is the organisation of four things: space, time, meaning and communication".* Hence, house design should be considered in relation to environment. Quality of environment has influenced housing, what happens or does not happen; and then it can help to explain the role and nature of neighbourhoods, settlement patterns and transport routes (Rapoport, 2002: 147).

The physical environment often serves as a repository of individual experiences and social relationships. Environment is temporal, and it can be seen as the organisation of time (Rapoport, 1976: 19), and it is more than a cause of behaviour and a behavioural mechanism; it can also be a context or surrounding in which personal relationships are embedded (Altman, 1993: 32). It is a subset of social activities and has the potential to influence human actions. Therefore, changing the physical environment contributes to transformations in the environment–human relationship, and also influences human activities and social phenomena.

2.6 VERNACULAR ARCHITECTURE STUDIES

> *Vernacular architecture as 'comprising the dwellings and all other buildings of the people. Related to their environmental contexts and available resources they are customarily owner or community-built, utilizing traditional technologies. All forms of vernacular architecture are built to meet specific needs, accommodating the values, economies and way of life of the cultures that produce them'.*
>
> (Oliver, 1997: ii)

2.6.1 Dialectic of vernacular house

Undeniably, a Karen house is vernacular architecture. The term "vernacular architecture" may be similar to certain terms such as traditional or primitive architecture, emphasising a process that culminated in built form regarding the form of building as an original aspect of building in a definable geographical setting (Ozkan, 2006). This section is intended to examine why should we consider study of the vernacular.

The term vernacular architecture has been defined as an organic process referring to indigenous, local and native buildings. The Encyclopedia of Vernacular Architecture of the World (EVAW) notes that vernacular architecture comprises the dwellings and all other buildings of people relating to their environmental contexts and available recourses (Oliver, 1997).

There are several theoretical and different practices of vernacular architecture. It includes primitive, indigenous, ancestral, folk, rural, ethnic or anonymous architecture (Oliver, 1997). The vernacular house is defined as a building built by people who take into consideration social conditions, environmental factors and local materials. Rapoport (1990) attempts to define or redefine "vernacular" and reflect its true nature, which must include the process and product characteristics of the vernacular with their polythetic classifications. In addition, he further mentions that the folk tradition is the direct and unself-conscious translation into physical form for a culture, its need and values (Rapoport, 1969). Mercer (1975: 1) argues that *"vernacular buildings are those which belong to a type that is common in a given area at a given time, and qualities of buildings as social and architectural phenomena will be borne in mind".*

As noted by Oliver (2006: 17), *"the vernacular as simpler building, of the short life and made of local, and often very light materials, they may be the constructions of ethnic or other minorities".* Similarly, Brunskill (1974: 15) found that the *"vernacular is the products of local craftsmen meeting simple functional requirements according to traditional plans and procedures and with the aid of local building material and constructional method".* A further definition is given by Turan (1990: ix) who defines *"vernacular architecture as a practical activity pursuing environmental adequacy involves a process and a special knowledge, each an inseparable part–and a product–*

of social relations wherein vernacular design is realised". Although a variety of definitions of the term vernacular architecture have been shown, this study concentrates on the concepts of Rapoport (1969) and Oliver (1997). This study will examine how these concepts relate to the participatory re-housing process.

2.6.2 Vernacular house form

A considerable amount of vernacular architecture study looks at buildings chronologically, with techniques, forms or building concepts developing over time, as well as a specific point of view. This part therefore aims to look at how a vernacular building is formed.

One of the common conditions is that dwellers build houses that are influenced and modified by many factors; for instance, climate, material, construction and technology, location, economics, religion, and culture (Oliver, 2003). In the same way, Allsopp (1977) notes that the development of the natural architecture of a region is definable by climate, culture and materials. Rapoport (1969: 46) argues that *"house form is not simply the result of physical forces or a single causal factor, but is the consequence of a whole range of socio-cultural factors seen in their broadcast terms".* In his seminal study, vernacular house forms are less the result of individual desires than of aims and desires of the group for an ideal environment. Turan (1990) maintains that vernacular architecture as an outcome of human intellect, experience and skills operating in structural relations is environmental wisdom. He further notes that vernacular architecture is a product, process and knowledge.

A possible explanation for this may be that the built form of vernacular architecture relates to various factors, of which social and cultural factors are most influential rather than physical forces in the creation of house form (Rapoport, 1969). Furthermore, these factors may explain the relative correlation between two sets of significant factors: first, the physical approach, such as materials, technology, politics, economics and the environment; second, the cultural approach, such as way of life and religion.

2.6.3 Future of vernacular house

> *Untold number of buildings in use today are the products of the past, while many more that are still being built perpetuate the forms that satisfied the same societies in earlier times. Dwellings may outlast lineages and in some cultures may be re-occupied and adapted, their survival to the present being a testimony to their responsiveness to changing life-ways. Changes may be induced by economic conditions, some building also serving other purposes.*
>
> (Oliver, 2003: 16)

Today, vernacular architecture is increasingly faced with modern issues such as planning regulations, climate change or technology transfer and the important problems contributing to them; it has to adapt itself to modern needs. The impact of globalisation and its effect on rural communities can bring new methods and aspirations to the study of future vernacular architecture. Ozkan (2006) claims that one major positive characteristic of vernacular architecture is as the highest form of sustainable building that uses the most accessible materials and employs the widest available technologies. Vernacular buildings have the potential to contribute to the development of sustainable architecture (Oliver, 2003).

Vellinga (2006) examines how vernacular architecture changes and adapts to the cultural and environmental challenges and circumstances of the present and future. He focuses on the way in which non-Western traditions change in response to the process of globalisation to create new buildings that are appropriate to contemporary and future requirements, needs and expectations. He further challenges the idea that vernacular traditions as homogenous, passive and rather static entities that can be classified into bounded geographical chronological and typological categories. In the same way, Oliver (2003) mentions that the idea that changes to the vernacular house relate to family and culture, such as ancestry, inheritance, gender, age, religion or belief systems.

Rudofsky (1964) and Oliver (1987, 1997, 2003) state that vernacular architecture uses technological sophistication and ingenuity with limited material resources while respecting their natural limitations. On the other hand, in many places, modern materials like concrete and metal have become the primary materials for building vernacular buildings and informal settlements, either because people can easily access them or they are cheaper than natural materials such as wood. This can be explained by the fact that the change of materials is the basis of a new vernacular form, particularly in developing countries (Oliver, 1997). Richards (2012: 41) notes that *"materials were sourced locally, prepared sustainably and put together with techniques perfected over time to address the local conditions"*; however, this approach exposed the inadequacy of life and failure to satisfy real human needs in a modern consumer society.

Vernacular form has always changed. Oliver (2003: 14) mentions that *"vernacular houses may be adapted or developed over time as needs and circumstances change, which is a convenient way for people who build the houses themselves".* Both Oliver (1987, 1997) and Rapoport (1969) further mention that the developing neo-vernacular architecture employs recycled and modern materials to extend the life of the vernacular building in modern contexts.

These works of literature indicate that vernacular houses are more than the physical structure, but also the life of the dwellers and the environment. We therefore have to

re-think traditional architecture connecting to modern society concerning social, cultural and physical building, which may assist in its reinvention to satisfy real lifestyle needs. In the case of the Karen, the images and characteristics of the Karen house need to be re-examined – how do they create and adapt their houses and how do the traditional houses fit into a change of social environment?

2.7 A CONCEPTUAL FRAMEWORK

This chapter has constructed a conceptual framework by working on these items within the literature: participation; culture and environment and the vernacular house; how the Karen design, shape, use and react to the culture and environment. Also, whether participation provides a strategy for local development and sustainable development, and how the environment provides cues to explain the circumstances.

From various perspectives, to work with the Karen, we need to understand the interrelationships between the spatial, the social structure, culture, environment and participation. For example, socio-cultural factors are employed to interpret the vernacular architecture in several ways. Rapoport (1969) notes that socio-cultural factors are fundamental to the understanding of vernacular architecture and a primary influence on vernacular houses.

This study attempts to explain phenomena through these approaches and describe reality from working with the Karen. I believe that it is necessary to understand several disciplines to reach the world of the Karen from many points of view and different interpretations. Understanding various approaches can assist in conducting and formulating research and clarify the epistemology and methods, what occurs and creates housing phenomena, and what we should focus on.

For example, we have long known that a Karen house is a vernacular building, but they have a particular building house process within many constraints that can add more discussion in the literature. We also need more discussion on how they react to their vernacular environment. These bodies of literature provide a direction for the working process. Together, this group of literature also offers a comprehensive understanding of the study and practice. However, the study needs to discuss and find out more knowledge by investigating the Karen dwelling process. Lastly, this practical research approach attempts to enhance community participation and environment. As mentioned, participation is not a new concept, but it brings both opportunities and challenges to the Karen. The opportunities exist to change the community and practice, in turn, they also bring many challenging working processes.

These items within the literature are applied to investigate the process and give a more comprehensive understanding of the nature of the Karen dwelling and collaborative working process. They can thus be categorised into themes of study in Table 2.6.

Table 2.6 A Framework of Study

Themes	Sub-themes	Issues
Community history	• Personal history	• Household members, age, gender, occupation, education
	• Family story	• Family structure • Family life
	• Kinship groups	
	• Political issues	
Domestic life	• Daily activities	• Waking up, cooking, eating, working and sleeping • Social interactions and leisure • Relationship with neighbours
House and identity	• House identity elements	• Material culture • Presenting identity through objects
Rebuilding process	• Social organisation	• Relationship between kinship groups • Gender role
	• House form	• Physical form • Element of houses • Material and structure • Important things in the houses and life • Spatial arrangements
	• Building materials	• Material choices • Impacts of material on built form • Role of materials • Combining materials • Influence of industrial materials • Impacts of national park regulation
	• Changing the house to current practicalities	• Requirement of occupants • Change to support household members • Changing use of space
	• Economic issues	• Household income • Budgets • Income generation
	• Cultural and environmental issues	• Spirit of house • The birthing house • Influence of rituals and beliefs on lifestyle

Themes	Sub-themes	Issues
Post-rebuilding process	• Investigating house elements • Learning from design and building	• Land sharing • Management • Craftsmen teams
Participatory process	• Collaborative working process	
	• Effectiveness of the process	• People's process • Decision-making process • Democratic process • Empowering community
	• Supportive and challenges of the process	



CHAPTER 3: PARTICIPATORY RESEARCH APPROACHES AND METHODS

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PARTICIPATORY RESEARCH APPROACHES AND METHODS

In October 2013, on the first day of the project, we arrived at the Kaeng Krachan temple in the town to see the body of Norsa, who was a son of Ko-ee Mimi and died yesterday. The next day, we took the body of Norsa using Noi's car to the village. We arrived at the village in the afternoon and took the corpse to Ko-ee's house to the funeral. After that, we had some time; Porlajee took us to survey the village and to see the terrace hill rice project. I saw the rice was small and weedy. Then, Porlajee led us to see the hill rice fields in the forest, which were surrounded by woods. The rice was as tall as my shoulder. A variety of crops were planted in the forest field that [people] can consume all year round. During our walk, we met people carrying firewood and vegetables walking out of the forest. At night, we slept in a temporary building that was built by Porlajee. Next day, we started a small meeting group with leaders and young Karen who knew the Thai language to initially explain the project and what should we do together. At that time, Plu, Porlajee and Mana led the data collection team. This small meeting was a starting point to introduce the project. We realised that it was not easy to create understanding about the project for the Karen people in one meeting. Then, a huge barrier to work with them was the park policy. Certainly, this work is different from the project when I worked with the urban poor in terms of culture, environment and politics. So, we have to think over again and again.

23 November 2013
We revisited the village using Kratong's car [a former Karen leader] with Porlajee to make sure that we could drive past the national park gate and access to the village. At that time, we still had not told the park officials that we were carrying out the project with the Karen because the conflict between them. We arrived at the village in the evening. I asked Porlajee to tell the leaders that we would hold the meeting at the weaving house in the evening. Plu, Jaroen, Madee, Porlajee, Doimooyaw, Kratong, Noi and Montha and a few other Karen villagers joined the meeting. I outlined key issues from the last meeting. There were eight issues: dwelling, culture, resources and environment, education, health, citizenship, facilities and occupation. We brainstormed how we were going to deal with these issues, how we could obtain the details of each issue. Questions arose at that time: why do we need to carry out this plan? What benefit do they [the Karen] get? This data is about the village; we will get to know the strengths and weaknesses of the village. We can analyse the holistic view of the problems and solutions of the village. Even though we cannot solve all problems, we know the real problems. Also, at least, we hope that we create a team for work in the future and we can help them to solve initial problems of dwelling to create better living conditions.



Fig 3.1 The meeting in a temporary building in October 2013



Fig 3.2 The meeting in the weaving house in November 2013

This chapter aims to clarify perspectives, methods and approaches that were employed in the project and research. It draws on the qualitative methods constructed as a research strategy, emphasising interpretation, understanding and creative dialogue; mutual action and learning. Multiple perspectives were gathered from the diversity of fieldwork, workshops and first-hand experiences. A participatory research approach differs from a traditional research approach in that the design workshops ask the participants to engage in the process and take action to find solutions in the form of collective and reciprocal dialogue and learning. Various information and data collection methods were used in this study such as interviewing, focus groups, photographic methods, participant observation, drawing and making models. This chapter also shows how these methods work in relation to the objectives and shares my experience during the fieldwork, how I was involved in the village and learned from the villagers.

3.1 ENGAGING THE KAREN

The fieldwork of this project was undertaken in a single location. It is a specific area that has a unique culture, livelihood and way of life as well as its environment. Thus, to work with the Karen in this project, it was necessary to learn from their livelihood and, in the same way, they learned from us about project management, in order to discover ways to work together. Working with the Karen, we used various methods, such as design workshops, drawing and photographic survey, based on a participatory approach. This project therefore aims to provide an in-depth elucidation of study focusing on the experience and wisdom of the Karen to improve their home and environment. This part presents how I engaged with the Karen community and how we established the research based on participatory principles. This research area is a real practical operational project by employing collaborative approach on various elements such as culture, environment and architecture. Table 3.1 shows how I engaged the Karen and the stages of the participatory process between 2013 and 2018.

Table 3.1 My Working Process between 2013 and 2018

Months	Contents
February 2013	CODI's staff invited me to visit Banggloy village to explore a possibility to work with the Karen to improve the housing condition of the community.
June 2013	I started teaching at Bangkok University, and I agreed with CODI to facilitate the project by taking it as a part of the university project.
July 2013	Memorandum of Understanding (MOU) between Bangkok University and CODI: I obtained funding to collect primary data to find the possibility of undertaking the housing project. I had a contract with CODI for ten months.
October 2013	I started preliminary data collection with the Karen.
November 2013	Focus groups with leaders, data collection team and other Karen. Reflecting on what happened and is happening and improving ideas from the last meeting. Survey of the village to create a preliminary map with the Karen.
December 2013	Meeting with the whole village to search for problems and preliminary solutions. We divided into two groups concentrating on different issues; Group 1 focused on dwellings, culture, resources and environment, and education. Group 2 focused on education, health, citizenship, facilities and occupation. Survey of the villagers' attitudes with the Karen by using questionnaires. We surveyed 50 households.
February 2014	Mapping of the village with the Karen people.
June 2014	Meeting focus group with Karen leaders and committee to analyse and develop an action plan.
July 2014	Rechecking of data and plan with Karen leaders to propose the Karen housing project to CODI.
August 2014	I proposed the housing project to CODI and my contract with CODI ended.
October 2014	CODI approved the project to improve and rebuild the Karen houses by passing the development budget directly to the Karen community, and allowing the Karen to manage the project themselves. I was a volunteer as an architect to facilitate the project, working with Montha Ajchariyakul from the NGO Chumchon Thai Foundation.
December 2014	Meeting and planning. After obtaining approved financial assistance, we carried out a meeting for construction management, dividing into three phases: 30, 24 and 37 houses respectively. We agreed to build the first building of the community; it was a community house.
August 2015–May 2016	Building 30 houses (Phase 1) and a community house.
September 2015	I started PhD at Newcastle University.
December 2015	Fieldwork to test methods and techniques such as interviews, focus groups and design workshops. Creating new methods to collect the essential data.
June–December 2016	Building 24 houses (Phase 2).
July–September 2016	Reflecting on Phase 1: looking at what happened; what the problems and the strengths and weaknesses were; how we could improve the process for building the next phase.
June–September 2017	Reflecting on Phase 2: Meeting and sharing experiences with each other; housing design workshop; mapping the original land.
June 2017–December 2018	Building 37 houses (Phase 3).



Fig 3.3 Signing the Memorandum of Understanding (MOU) between Bangkok University and CODI in 2013
Source: CODI (2013)
Associate Dean for Student Affairs, Sadanu Sukkasame, Dean of School, Assistant Director of CODI, two CODI staff members (from left to right).



Fig 3.4 Meeting at Pongloug community house in December 2013

It can be seen that the timeframe of study is related to the timing of the housing project. This study challenges ways of thinking and framing many issues; for example, how I deal with the Karen language. In turn, this becomes a chance to learn the Karen language and understand the different world of knowledge. Also, how we build trust with each other, how I stay in the village and how they provide me with life lessons.

3.2 CONSIDERING OUR METHODS: WAYS TO COMMUNICATE, BUILD TRUST AND COLLECT INFORMATION

The first step of fieldwork was getting involved in the village, as well as finding an appropriate position to learn about people and their environment. Before starting the project, I had to prepare myself to find a way of connecting with the villagers to make them familiar with me. Adapting myself to the Karen community environment was the first challenging task of the fieldwork. This section therefore aims to share my stories and experiences of working with them.

3.2.1 Getting involved in the village

This thesis has been developed from the housing project that I conducted. When I first arrived in the village in 2013, I had to introduce myself to the Karen leaders to explain why we had come here and what we would like to do together. We also started introducing the purpose to other Karen in small groups of people who were interested in the project. However, we had to be patient in starting the project because there were many organisations who came to carry out projects with the Karen. Sometimes they conflicted with each other; also the Karen might judge the project and ask what the benefit from it for them was.

Therefore, the objectives of the project should clearly identify the benefit for the Karen before working in the field. However, some organisations disagreed with the housing project, such as the Western Karen networks. They thought that this project might support the eviction policy to move the Karen rather than help them. Additionally, it was necessary to contact the local government agency and the national park to inform them about the project[8] because we had to maintain a long-term engagement and spend many years to complete the project.

3.2.2 Learning the culture of the community

When I stayed in the village, I had to mingle with the Karen and started to create a relationship with them by going to see them in their houses, shops, fields or at the weaving house. We also exchanged ideas and knowledge with each other. Giving and taking things often occurred during visiting; for example, I usually took sweets and milk to children or brought some foods to some families. This helped them to feel positive while talking to me and relaxed in conversations. Staying in the village and helping

[8] When we first collected data between 2013 and 2014, we did not inform the national park officials. We collected data with the Karen and made the proposal to CODI. After CODI approved the project in 2014, we informed the park officials and the local government agency about the housing project.

them was the proper way to learn the lifestyle and also create a good relationship. The real habits and activities of the villagers were revealed through this stage.

Furthermore, the Karen kinship groups were a significant issue that was the key structure in investigating the relationships of the grouping of houses: all the inhabitants were related to each other. Staying in the village, it was necessary to know who they were, and who was related to whom to understand and develop a close association with the people. Also, I had to be careful to stay out of conflicts between the Karen, and between the Karen and other organisations, because the study and project required me to spend time to work with the Karen. The unavoidable culture shock on the first visit made me realise that the world of the Karen was very complicated and was not like my world.

3.2.3 Living in the community

Selecting an appropriate place to stay, sleep or eat was very important to observe the activities of the community members. Thus, it had to be a place that I could get access to comfortably without disturbing the householders. When I started working in the village, I stayed in a couple of houses as long as they invited me to stay with them. Many families invited me to stay with them at least a night, but I could not, because some families were very crowded and I did not wish to disturb them.

Living in the community is fundamental to effective ethnographic fieldwork (Kellett, 2011). Deciding to stay in a Karen family allowed me to observe them 24 hours a day, which is important as a part of the ethnographic method and helped me understand their culture. Additionally, for practical reasons, selecting a house that had sufficient electricity was sometimes essential to write reports at night for at least two or three hours, while many houses did not have electricity. Staying with the Karen was not only about learning the local culture but also understanding the Karen's lives in depth. This is a part of my note during my stay in Jua Jeebong's house. It indicates the importance of staying close the Karen. Observation started from waking up until going to bed.

> Jua woke up at 5 am. After washing his face and brushing his teeth, he turned on the radio first to listen to the news, music and also Buddhist stories. Then, he came to sit in front of the rooms and pestle betel nuts to chew, which is very popular among the Karen. After that, he went to boil water and cook rice around 6.30 am. I found that he had replaced a fireplace with braziers after re-housing. He said it was now easy and comfortable to use, but he might build a fireplace again in the future, but not yet.
>
> Field notes, 27 July 2016



Fig 3.5 Staying at the community house during fieldwork in December 2015
The blue tent was mine and the other one was that of my colleague. We went to work together many times and sometimes I went alone to collect data and organise the project.



Fig 3.6 Staying in Jua Jeebong's house during fieldwork in July 2016
I decided to stay in Jua Jeebong's house. He was the father of a Karen leader. I slept in the blue tent to protect me from mosquitos. His house was completed a couple of months before I arrived. This was an opportunity to see what the family had changed and adapted to the new house.

3.2.4 Learning the local language

Communication was an initial problem when we started the project in 2013 because we spoke totally different languages. The indigenous Sgaw Karen language is spoken by the Karen Banggloy people. It is marginalised due to the small number of speakers in Thailand. Although few Karen in the village are literate in the Karen language, they all still use the spoken Karen language to communicate. However, the younger generations can speak both the Thai and Karen languages, particularly those under 40 years old. Understanding the language is a way to understand the system of communication and culture, as language signifies identity and social stratification.

Learning basic vocabulary is also essential to chat to people or greet them. When we learned the Karen vocabulary that people used in everyday life, this led me to view them in ways similar to their own perspectives. For example, the Karen language identifies the status or position of people in society. Learning the local language provided me with exposure to their culture and opened the door to the Karen world. Therefore, learning the language was not only understanding them, but also creating relationships at the beginning of the project. Learning the language with children is good fun; on the other hand, I gained insight into Karen philosophy through learning the language with the Karen leaders and elderly.

3.2.5 Translation

I tried to learn the language but it took time. Therefore, we had to find translators: who should be a translator, what a translator should understand and how one finds them. These questions were raised at the beginning of the project. Thus, when we carry out fieldwork such as interviewing people, the translator will be determined by the topics that we interview people about on that day and who the interviewees are. If the topics are about general information such as everyday life, personal history or occupations, we will ask a young Karen or household members who can speak Thai. For example, when I interviewed parents, their son or daughter would translate the language. However, in the case of in-depth or complex information, such as cultural or political issues, a Karen leader and teacher would translate for us. Generally speaking, a translator had to be a Karen in the village who understood the contexts and could speak the Thai language. Nevertheless, we often faced the problem that we could not translate accurately what they needed to tell us from the Karen to the Thai language. Many times, it took a long time, because the translation process is not the replacement of one word with another, but the formation of concepts in another language. (Shamami, 2012: 244).

3.2.6 Creating trust

A relationship of trust between the Karen and myself led to a good work environment that supported better action. Creating any positive working relationship is based on trust. Creating trust in each other is a critical process that takes more than a year; for example, the project began in 2013, but we still keep building trust with the community up to today, because once trust is lost, it is hard to recapture the relationship between us.

The initial trust developed in 2013 when I started collecting data with Porlajee to present the housing project to CODI. Some Karen people became involved in the data collection team[9] to help us in preparing the project. After obtaining funding, the community committee was allowed to lead and manage the full funding of the project, together with my colleague and me as an architect and a facilitator. Allowing the people to lead the project means that you trust them to deal with the problems. This approach focuses on empowering them to increase their opportunities to improve their dwellings. The objective is to concentrate on the process rather than on the product. We focus on something positive to develop and help them to understand the problem. This is far more effective than comments on failures or negative things.

Also, there was less teaching and more action. To make sure that the Karen could take action, we had to conduct meetings and planning as well as training. We realised that teaching and training should be limited, in turn, taking action in the real situation gave people the confidence to make decisions; for example, encouraging the Karen committee to manage the funding rather than forcing them to follow my ideas. If people do not have confidence in themselves, then the building process cannot be successful. Also, it was important to avoid giving negative comments to the management of the Karen. This might have resulted in barriers to future working together because some people might be sensitive about the comments. Thus, asking, advising and supporting what people do is important; then they will prove themselves through their actions.

Finally, learning and listening from taking action is important; learning what people do that promotes effective communication with each other. Listening to the Karen's voices was a position of mine that we should practice. Additionally, listening and learning is a way to improve communication and creating trust in each other. It was essential to let people know that we believed in the project mutually. The participatory process is a long process, and we need to see the long-term impacts. There also are many things that we desire to explore. It was difficult to achieve a sufficiently collaborative process at the first meeting, even in the first year of participation. Without trust in the project, communication and cooperative working will be eroded. Positive thinking is the vital element to bear in mind, because people change more by building on their strengths

[9] The data collection team was formed from people in the village, consisting of Karen leaders, Mana Jaroensook, Porlajee Rakjongjaroen, Montha Ajchariyakul (NGO) and myself.

or confidence than by working on their weaknesses. This does not mean that the weak points should be ignored, but it does mean that we should concentrate on what we do best together.

3.2.7 Consent and ethics in research

> *Ethical issues are part of a wide consideration of the role that values play in the research process.*
>
> (Bryman, 2012: 149)

Ethics is important when conducting projects and research, especially with minority groups. How was I supposed to handle the Karen when we conducted the project? This question about ethics made me concerned about them; what kind of questions could be asked, who could or could not be interviewed? How was I supposed to refer to them in this research? Also, gaining access to people was a crucial thing; we first had to ask the householders for permission before entering their houses. At the beginning of the project, the leaders helped us to introduce ourselves to the householders and we also always introduced ourselves in the meetings to make sure they could recognise us. When we carried out data collection together, I had to make notes and records to report findings in such a way to put their names and dates on the notes to identify who they were. I also asked them for permission to take photographs and recorded our conversations. They always allowed me to do so; in one sense, this was because of trust. We conducted the project together from 2013; we took photographs and collected data together to create intensive data and report to CODI.

This personal information was collected and protected for research purposes. Furthermore, we are carrying out another research study: *The History of the Banggloy: Dwelling and Settlement.* Together, we collect in-depth personal information from each household and kinship group. Every interviewee, photo and recording have been permitted by the Karen in order to create the data. Therefore, the Karen are fully informed about their roles in the project process. They know that they are a part of the project and research. They are pleased to reveal the information to a project that they trust. This is because this information confirms the existence of the Banggloy Karen, who have lived in these areas before the establishment of the national park. Furthermore, this disclosed information is evidence that reflects the failure of state policy regarding the top-down approach. This information should be helpful to negotiate some policies that allow them to live peacefully in the forest. Hence, it is essential to reveal their voices and identities in the project, as you can see in my interviews of hundreds of people. Lastly, it should be borne in mind that building mutual trust is important in the consent of participants, while avoiding sensitive content that might be harmful to them.



Fig 3.7 Interviewing Jorjuemi in 2016
Jorjuemi was preparing the area to build a new house. I asked him for permission for access to his house and look around inside it. I also talked and played with the children and looked around the house with them, and took photos. After that, I interviewed and made conversation with him. Photo: Montha Ajchariyakul

3.2.8 Learning from the fieldwork

This part focuses on examination of the methods and techniques of the fieldwork. In fact, "*the desirability of piloting is not only to do with trying to ensure that survey questions operate well, but also has a role in ensuring that the research instrument as a whole function well"* (Bryman, 2012: 263). Therefore, I try to do so from simple methods to complex ones. A starting point was talking to the Karen and recording their thoughts and ideas. The essential practice was to take detailed notes and record their voices by using a digital sound recorder during conversations, also taking photos.

As mentioned, my fieldwork in December 2015 offered me an opportunity to experiment with existing and newly acquired knowledge. The initial stage focused on talking informally to check appropriate ways that we could work together. Also, things were prepared to ensure that the process was recorded, and that those records were relevant to the project objectives and coherent within specific processes, such as reflection, analysis and action. Moreover, contacts and networked relationships were important to get me closer to the group and navigate my journey throughout the challenging tasks. We experimented with many visual methods, such as participants

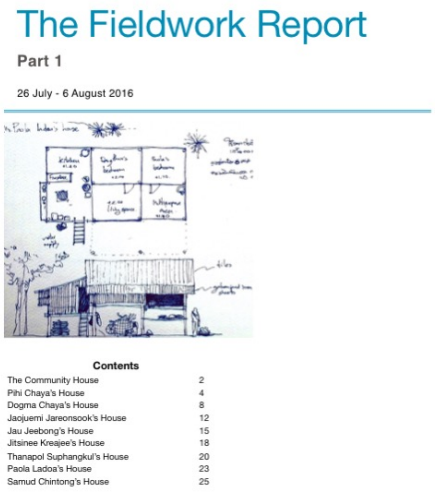
drawing and making models in the workshop; the Karen generated photos and other methods such as a focus group interview. Then, we usually used the community house as the central place to set up the meetings by providing space for people to join together as a way for people to connect, discuss and reflect ideas.

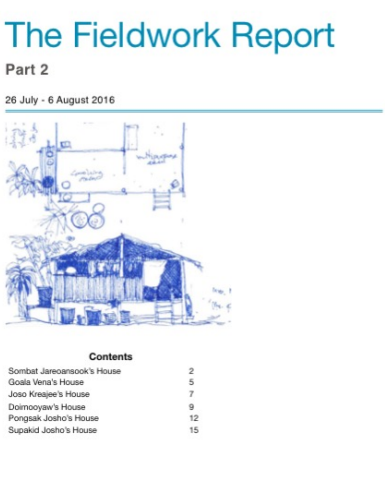
Many questions arose from meetings. This information could be used to discuss, for instance, questions to reflect on what we found during an initial investigation. What key ideas should we start with? What possibilities and chances seemed useful to explore in the Karen context? In addition, the nature and style of communication among the Karen were significant impacts on their ability to work effectively. Regarding effective communication, Stringer (1999) notes that listening to people when they are talking, apart from the elementary conditions of communication and characteristics, will provide a cue and message about what we can do. Collectively, this allowed me to determine and consider how I was to prepare and improve and also identify problems. I learned effectively through testing various methods on the pilot study as well as preparing to immerse myself in the community to collect more detailed information.

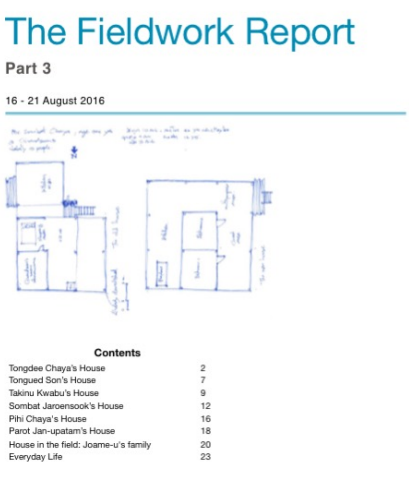
3.2.9 Field notes and fieldwork reports

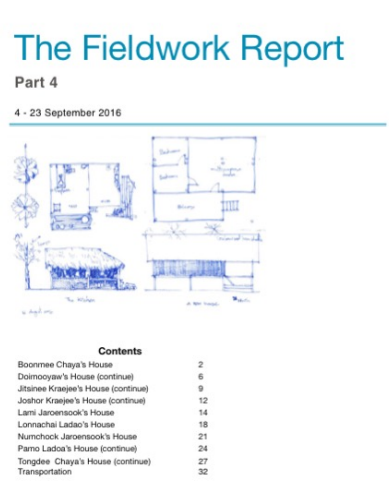
Notetaking is based on observations, interviews and workshops. These are summarised in my initial reflection in the field reports. I took notes as soon as possible after something interesting happened and I often included drawings together with the notes together to reflect the evidence that made me recognise what happened. Also, photography is an additional source to help to document and remember.

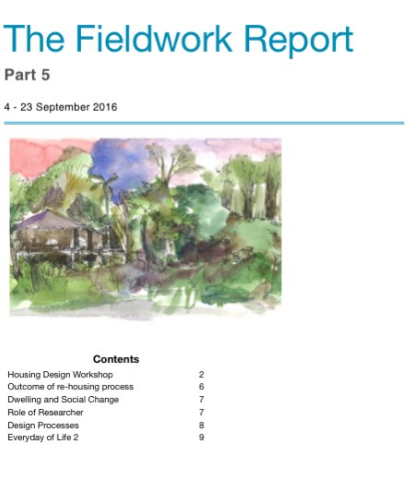
I usually wrote data down in small notebooks to recognise events. In terms of taking notes, I practised this in many ways. For example, firstly, by writing down notes as quickly as possible after seeing or hearing something interesting; secondly, by writing my personal reflections about my own feelings. This was helpful in formulating my reflections of field trips. Thirdly, using a digital sound recorder helped to write reports effectively, as due to of the voices and language of the Karen I needed to recheck problems of speech and vocabulary to transcribe their words correctly. Lastly, I wrote full field notes at the end of the day – who was involved and what happened – to describe the evidence. Bryman (2012: 463) notes that *"personalized accounts are essential and are more concerned with detailing how [the study was] carried out than presenting findings"*, which will bring the reader into a framework of facts, interpretations, observations and reflections.



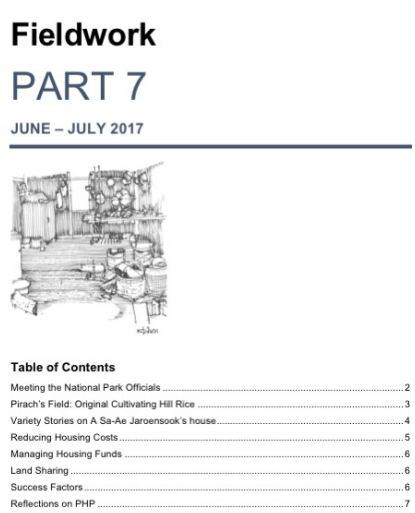












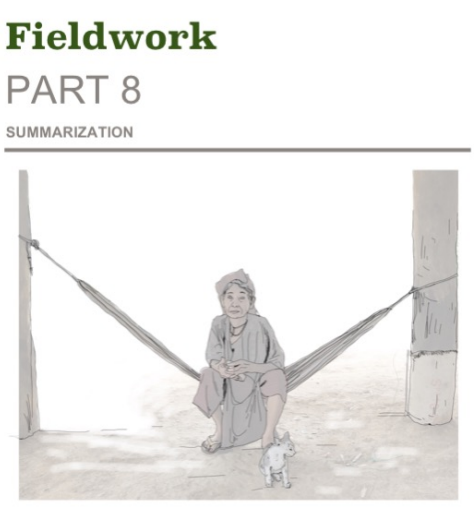


Fig 3.8 The fieldwork reports between December 2015 and July 2017

3.3 THE STRUCTURES OF INTERVENTION

3.3.1 A theory and practice

This project is established based on theory and practice in working with the Karen. Fals Borda (2006: 29) points out that "*academic accumulation plus people's wisdom became an important theoretical guideline for our movement*". "*Participatory Action Research (PAR) involves research **with** people rather than involve research **on** people by generating knowledge through the lived experience of participants*" (Lennie, 2006: 28). "*It also involves all relevant parties in actively examining together current action in order to change and improve it"* (Wadsworth, 2001: 15). Alston and Bowles (1998: 164) also support the idea that "*essentially PAR is about changing or improving a social situation and involving those most affected in the progress of doing this*". The participatory process is not a tidy linear process, but facilitators and participants can jump around between different elements in the cycle (DFHCSIA, 2010) and focus on participants changing their practices and behaviours, not those of others (Stringer, 2004). In other words, a participatory process can be a mechanism to enhance social inclusion.

The strength of a participatory process is that it can be implemented in complex contexts, with users and stakeholder groups, to improve the situations of people. It also provides a framework of systematic practice to produce understanding and improvements, including empowering minority groups and indigenous rights relating to basic rights. Grant (2008: 266) proposes that "*it can be adapted, changed, and redesigned as the process goes along*".

These ideas provide evidence that participation aims to help people to change in social structures. Consequently, working collaboratively with the indigenous Karen creates a system based equally on two cooperating domains.

- Research: a disciplined approach aiming to discover methods and cooperative working processes to evaluate the impact and effectiveness of the re-housing process on the lifestyle and culture of the Karen and to identify both supportive factors and challenges affecting the re-housing process.

- Practice: we work together to achieve the rebuilding of houses and strengthen the community. This differs from research. It does not need to create or discover any theory or answer research questions. It focuses on building the house only, and the Karen are the key leaders of the process.

Both are vital domains that determine the methods, tools and practical know-how as well as concepts to work to reach the goals. A relevant question is: how can we work together from the start to the end point? Fig. 3.9 clarifies the collaboration in the

coproduction process in that we act on it by sharing methods, frameworks, tools and goals with each other, such as participant observations, reflections, problems and solutions, interactive learning and design workshops, action planning and implementation. The results of the process will be checked and evaluated to edit and improve the methods and the process, in order to repeat the cycle to make sure that we get satisfactory outcomes. The key idea behind the working process is the mutual experience to answer the question of how we can work together. This process is a way of learning how to understand the particular social world of the Karen and how to build houses and improve the quality of life within the national park regulations.

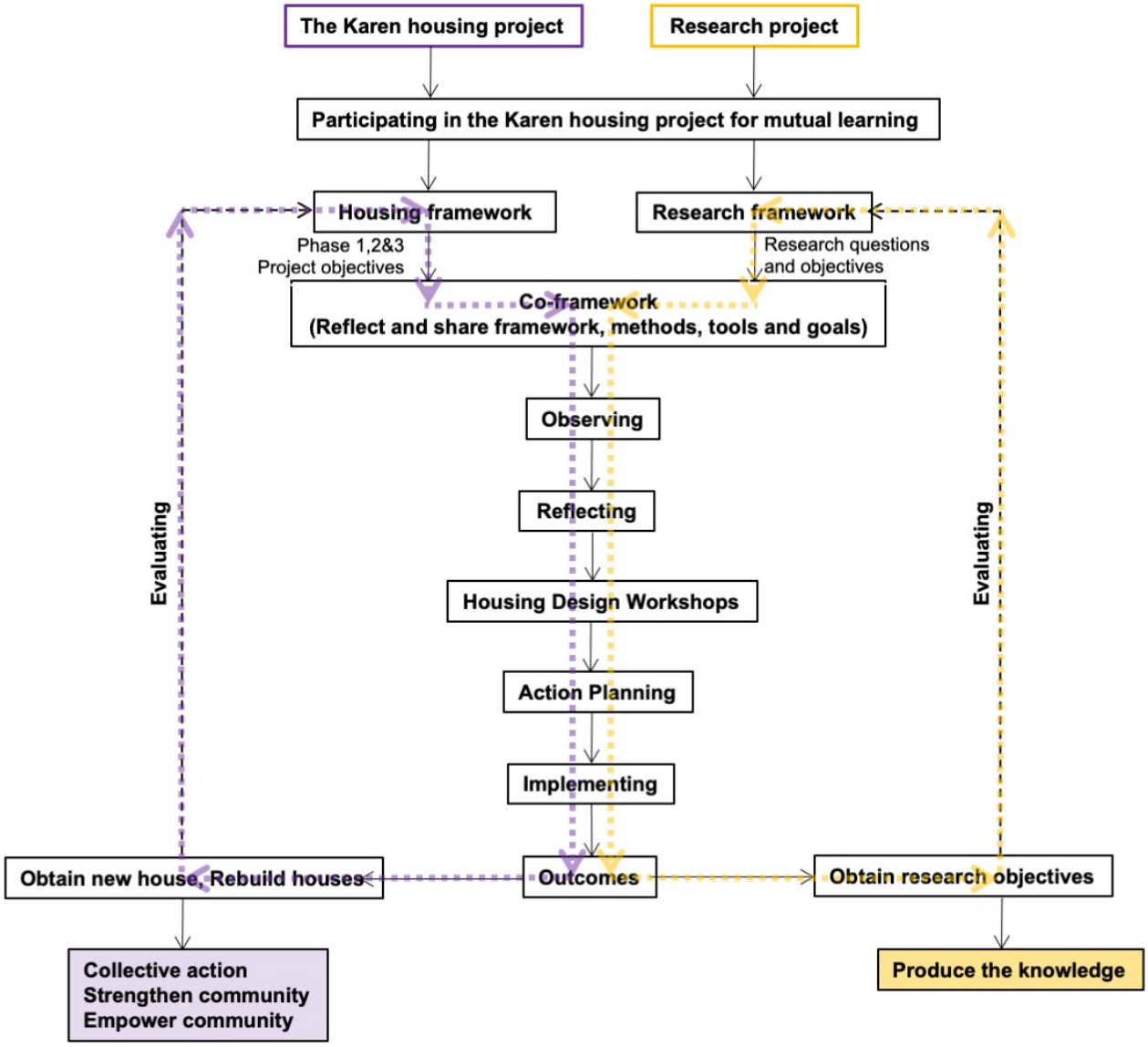


Fig 3.9 A working process for Banggloy Karen village

3.3.2 Rethinking the working approach

As mentioned in Chapter 2, participation can be defined in many ways; it depends on people who have different backgrounds and come from various disciplines. I would like to borrow Hamdi's (2014) idea, where he said that *"participation in practice is responsibility with authority in partnership with other stakeholders"*. However, for this project I would like to summarise that the form of our working process with the Karen is a collaborative action process. It is a tool to encourage the Karen to develop their life. This process also generates attention by the Karen to think more and search for an opportunity to develop the community for the future. The process relies on the actors who engage with and understand the issues.

Furthermore, there are differences of the working process between the urban poor community and the Banggloy community project. Firstly, the Karen community obtained a small amount of funding, around £80,000 (approximately £880 per household). The purpose of the fund was to improve the basic infrastructure, but we adapted it to improve the houses instead. Furthermore, they could not borrow money from CODI because the loan was tied up with the community collective saving group, and the Karen did not have spare money to save. In contrast, the urban poor obtain both housing loans and a subsidy for long-term repayment.

Secondly, the Karen did not join the urban poor network[10] of the province because they live in the national park and have to abide by its regulations. Also, sometimes they have conflicting ideas with people in the town who agree with the relocation policy of the park.

Thirdly, the national park regulations determine the building materials to be used. Before each phase of building a house, the house and status of the Karen must be approved by the park officials. In the same vein, when we identify the beneficiaries, we have to deal with the park officials to ensure that these Karen people were born and lived originally in Thailand. In addition, the Karen do not have rights over the land where they build the houses. The land is dominated by national park regulations, whereas the urban poor can apply various forms of development such as on-site upgrading, on-site reconstruction, land sharing, and relocation with CODI subsidies.

Lastly, the Karen housing process promotes various house designs, depending on the householders. The Karen can build their houses as they need; thus, each household has its own house designs. The urban poor community, however, are limited to around four house forms because they have to save the cost of drawing and construction.

[10] The urban poor network of the province refers to a group of low-income communities within the province that are grouped together as a network of collaboration in housing development.

Furthermore, all Karen houses are built by the householders in the village, whereas most urban poor hire construction companies to build their houses.

3.3.3 The key form of participation and preparatory phase in housing

"The key strength of PAR is itself a social and educational process, which offers opportunities to create forums in which the people can join as co-participants and join together in changing the practices through which they interact in a shared social world" (Kemmis and McTaggart, 2005: 227). Kemmis *et al.* (2014) further mention that the participatory process is a disciplined way of creating change. It presents through the spiral of self-reflection, consisting of observing, reflecting, planning, acting and evaluating. However, as mentioned in Fig. 3.9, this project is based on PAR by placing the housing design workshops between the reflecting and planning stages. Our participation in the cycle of housing therefore follows the key steps of PAR to incorporate people's experience to discover a way of creating change together.

The preliminary process is to set out the stages to identify the role of all participants. Employing a systematic process allows us to understand what could work better and encourages us to explore good practice within the context of the project. The process should thus be clearly articulated in the work and reflected in operational management. Therefore, the fundamental steps of the participation process we used in working with the Karen are detailed here:

- The first step was getting to know each other, listening to the Karen's voices and observing the context in order to define and describe circumstances. The Karen also learned about the project from us.

- The second was reflecting and sharing ideas with each other on what we found, to analyse and interpret the situation to understand the nature and context of Karen culture and how to maximise the potential of the project.

- The third stage was the workshop; drawing, making models and designing houses to investigate what they needed and required to change and build their houses.

- The fourth stage was planning the strategies to identify the building process and the action plan.

- The fifth stage was action or building the houses following the strategies and action plan.

- The last stage was evaluating the project outcomes and sharing them with the Karen. This is a vital stage to receive feedback and suggest tentative solutions to problems.

- The stages are repeated, and so on.

An initial level of trust was created through the meetings and workshops by introducing myself, my colleague and the project. *"The early sessions are a chance between all participants to get to know each other and encourage the development of collective decision-making"* (Savin-Baden and Wimpenny, 2007: 334). Managing space for observation, reflection, planning and engagement of the Karen set up a clear agenda to outline and manage a framework. It enabled us to think how we worked as partners in the process and with the active participants, implement the participation in housing that led us to decide what we needed to do and how to manage it. Repeating the cycle allowed us to check and improve strategies based on evidence and experience, keeping us moving through the research until we had sufficient information to develop the practice and also achieve the project objectives. The result of the initial process was not merely a collective commitment and reflection to investigate problems, but also created an alliance between the Karen people and the project team in terms of collective action.

3.3.4 Observing the evidence: participant observation

Observing is the starting stage to initially create a clear picture of research contexts such as places, people, objects, acts, activities, events and time (Stringer, 1999). Understanding the context of the project is the beginning of the participatory cycle. The aim of this stage was to describe the situation and collect primary essential information to reflect upon in the next stage. Typically, participant observers gather further data through interviews and the collection of documents (Bryman, 2012). Kellett (2011: 342) notes that *"participant observation can be seen as a logical approach to interpreting complex processes of house and settlement construction and habitation".* He further mentions that living in a community means sharing the residents' experience of their settlement and offers insights into their world (Kellett, 2011). I stayed in the village and engaged in community activities to become more a part of the community. I immersed myself in the Karen village, listening to what they said in conversation and observing their day-to-day activities and ways of doing things, contributing to understanding more clearly their culture and behaviour. Additionally, becoming a part of the community was a chance to create understanding about domestic life and relationships and use of space, as well as kinship groups reflecting how they produced and used spaces.

Observation allowed me to record the essential details that helped establish the formulation of descriptions by respecting and listening to the Karen's voices; for

example, recording the types of activities and houses by sketching. My observation-based practice was centred on the sketch: a visual transcription as representational subject matter. Furthermore, drawing and mapping a sequence of events and other relevant features of contexts helped to plan and identify some key features of complex issues, and I used this information to formulate those issues. Also, persistently collecting and recording evidence were vital tasks that offered helpful insights into domestic and community life. Observing evidence contributes to the raising of issues to propose in meetings and workshops on how we may improve the community.



Fig 3.10 Sketching in December 2015

Sketching is a tool that I usually employ by drawing in my sketchbooks what I see and find. For example, with these figures, I sketched the house forms and spaces, and then used them during the interviews with householders on issues what I found.

Tonight we stayed at Takinu's house. This was my first time staying in a villager's house. That night, Takinu's wife cooked food for us. We tasted Karen meals under the dim light of candles. We sat around the food on the bamboo floor that was my sleeping space at night. After dinner, we talked for a while and we went to bed. Porlajee went back to sleep at his brother's house.

Next day, Porlajee came to take us to see the rice harvest at Huay Pongloug. We walked into the forest, we saw Kina was harvesting rice. His field was rich on the slope of the hillside.

In the afternoon, Porlajee invited Jorsho to interview at Boonchoo's house. We climbed up to Boonchoo's house and waited for Jorsho. Norkae was weaving cloth on my left. She cannot speak the Thai language. She showed us pieces of beautiful cloth. It was very detailed.

Soon, Jorsho climbed up to the house. He smiled and sat beside Porlajee. Jorsho cannot speak the Thai language, so Porlajee was a translator. I told them I would record the video to check and transcribe in the Thai language. Porlajee said yes and Jorsho smiled. Then I set a digital camera to record videos. Porlajee moved around to find a good position for me to record the videos.

After the interviews, Porlajee led me to survey the village. I held a printed map from Google Earth and my sketch map. I also drew a social and physical map of the village. Porlajee took me to talk to householders and I marked positions of each house on my map including writing their names on the map. During surveying, I had chances to talk to them to become familiar. I marked the important places, such as a shop, church, leaders' house and elderly people's house. Essentially, a compass is a tool to prove the direction, layout and position of the houses when I draw it on a map.

On the last day before we left the village, Porlajee led us to see Ko-ee Mimi, his grandfather. Ko-ee moved from an old house to this house that was built by Porlajee. It used to be a temporary building where I slept and conducted a meeting a couple of months ago. It was adapted to be a new house for Ko-ee.

We were slowly walking to Ko-ee's house.
Ko-ee was sleeping, and his nephew was cooking rice. His son sat and chew betel nut on the opposite site. "*Hello*", we said. Ko-ee gradually opened his eyes and woke up. He sat and walked to sit near his son. We talked about the evacuation in 1996 and 2011. They were depressing stories.

In terms of a house, Porlajee said that ten people lived in this house, and it seemed not to be enough space for them. The roof was made of leaves, there were no walls. The floor was bamboo. Alongside the fireplace was Ko-ee's sleeping space.

After talking, we left the village and kept data to analyse in Bangkok. Obviously, I had many questions that we needed to find out [answers to]. We also planned for the next [stage of] fieldwork.

Field notes, 23–25 November 2013

3.3.5 Reflecting on the evidence

Formal and informal meetings were essential to discuss specific and general issues to reflect the ideas of participants – both the Karen and myself. We made a clear preliminary picture of the context at this stage. I started working with a small group so that we could discuss and manage the time easily. The process of reflection was to bring the data together and to reflect on the data synthesis, identify patterns and relationships. Each meeting began with an agenda, including the purpose of the meeting and the activities, that we – the Karen leaders, my colleague and myself – agreed to talk about with the villagers. We usually prepared and discussed the issues the day before the meeting. Actually, the meeting could be conducted in various stages, such as action, reflection, or planning, in order to reflect the ideas of all participants. Also, it is important to bear in mind that meeting procedures should ensure that all participants have an equal opportunity to express their ideas and perceptions.



Fig 3.11 Reflection and discussion in the meeting in December 2015
Reflecting – what we learned from the building process, what we have done so far, what the problems or weaknesses of previous building processes were – was a vital task that we had to carry out after completing the construction of each phase in order to find out the weaknesses and problems of the process. As can be seen in the figure, this was a meeting after completing construction of Phase 1 (30 houses). We found problems and constraints together to improve the process. We held the meeting at the community house and Plu (a Karen leader) was the translator.

A long vacation in December; I rang Porlajee to say that we [my colleague and students] would go to the village to collect more data and hold the meeting. We got some help from my students who were interested in the Karen culture. They also would like to help us survey the village and distribute questionnaires.

We arrived at the village in the evening. My colleagues stayed at Takinu's house and I stayed at Porlajee's temporary house. That night, we prepared for the meeting the following day with leaders about what we were going to do. We planned to divide into two groups: the first group [Montha, Porlajee, Plu, Noi, Preu and myself][11] held the meeting. The second group [my friends, students and Karen teenagers][12] surveyed the village and did questionnaires.

The meeting was held at the Pongloug community house [in the village on the other side of the river]. We appointed people from both Pongloug and Banggloy village to attend the meeting in the morning. In the meeting, we held the meeting to create a comprehensive community plan and to find problems and solutions for each issue. People gradually walked to a community house. The seats were full; some stood outside the building, some sat on the ground and chewed betel nuts. The time came, I introduced myself and the team, and the purpose of the meeting. Plu and Niran [both are leaders] were translators.

For me, I realised that it was not easy to explain the working process and to create an understanding of the project. We had an outline of each issue from our previous meetings: dwellings, culture, resources and environment, education, health, citizenship, facilities and occupation.[13] In order to gain comprehensive data, we divided into two groups. The first group – Noi, Plu and myself – led the talk about health, citizenship, facilities and occupation. The other group was [led by] Montha and Preu who talked about dwellings, culture, resources and environment, and education. We encouraged them to express the problems and possible solutions of each issue. Both groups took around two hours. We received helpful and practical ideas and details of each issue.

In the afternoon, we gathered data and questionnaire sheets together that my friends and students surveyed in the morning. Fifty households completed the questionnaire.

This fieldwork session reached its goal, and we gained not only data and development plans, but also started the participatory working process with the Karen people. Collecting data together was an initiation point to create trust and become familiar to people. Although some still did not understand the project, we attempted to encourage them to join us through the participatory process. We hope the next meeting will be better and better.

Field notes, 23–25 December 2013

[11] Montha is my NGO colleague. Noi is a Karen from the Western Karen network. Preu is a Karen from the Northern Karen network.

[12] The students came from Bangkok University, where I taught them in a design studio.

[13] These issues, which are the main problems of the Karen community, need to be solved. We attempted to help them to seek out the initial problems and solutions. In the end, we also reported these issues to CODI in 2014, and proposed the Karen housing project to solve the dwelling issues.



Fig 3.12 The meeting in December 2013
Noi and myself organised a group concentrating on health, citizenship, facilities and occupation issues.
Photos: Montha Ajchariyakul



Fig 3.13 The meeting in December 2013
Montha and Preu organised another focus group focusing on dwellings, culture, resources and environment, and education issues. The meeting was held at the community house of Pongloug village near to the school (on the other side of the river).

3.3.6 Housing design workshops: empowering community through drawing and design

The housing design workshop is a stage of participation in housing. We conducted two workshops, in December 2015 and September 2016. The workshops were collaborative activities sharing different ideas to explore possible design. Both workshops focused on house design and explored alternative ways to solve the dwelling problems.

3.3.6.1 Housing design workshop 1

The first workshop was held in December 2015 and focused on people designing their own houses. To start, I presented the outline of the housing programme and reviewed the land use and the national park policy to open the discussion and to summarise the community's situation and opportunities. The next step was to discuss the limited budget divided into three phases, totalling 91 households. The workshop was divided into two groups: building and extending houses. We concentrated on 14 households who would build new houses. This group divided into small groups of four or five members in order to manage the discussions. The workshop aimed to be an interactive learning activity to share different ideas by exploring alternative ways to solve the dwelling problems. We had a bamboo model that was built by Doimooyaw. This allowed us to see and think more easily about such items as house structure and spatial organisation. The model also made people realise what they needed or did not need to build, as well as thinking about building materials.

Drawing helped people to think about building materials, construction and budget. It also referred to the self-awareness and self-image in relation to their circumstances. Pallasmaa (2009) explains that a pen in someone's hand can be a bridge between the imagination and the image that appears on the paper. We can integrate the lines they produced into a message telling us the spatial arrangement. Thus, drawing itself contains an intellectual reflection about design.

During the drawing of houses, I had opportunities to discuss the design with them. Some people felt nervous about how to start. Some people began with marking dots and slowly drew lines. I discussed one by one with them. The questions they most often asked me was, *"Can I build my house like this?"* I said, *"Definitely, it depends on your household"*. However, the main factor was the budget that each household had; they had different levels of income support and budget as well as household labour. The bigger the house they needed, the more labour and materials they needed.

Talking during the drawing of houses is an effective visual way to discuss and express ideas that people desire. At this stage, I also learned from them how to construct the traditional Karen house and how they believe in the house spirit.

Elderly Karen were particularly concerned about land and house spirits. After completing their drawings, some presented their designs so that other people could learn from them. For example, Doimooyaw explained his design:

> *"We [Doimooyaw and his wife] will sleep here [in a room]. If elderly guests come to see me, they will sleep here [alongside the fireplace]. If young male guests come to see me, they will talk and sleep here [on the verandah]. If young female guests or my daughter's friends come, they will sleep in my daughter's room. Then, for paddy rice, I will put it here [in the cooking area] as well as mortars and threshing baskets. We will put cups, dishes, bowls around here. Then here for water storage, and if we need to dry rice and clothing, we will dry it on the balcony. That's it",* Doimooyaw explained. "*Well done*", I said (see Figs 6.51–6.53).
>
> Doimooyaw Pugad, 28 December 2015

From his explanation, we perceive a sense of relationships between occupants, spaces and objects or artefacts. In this example, the drawing is more than lines and dots, and it also illustrates routines and spatial arrangements. These make drawings an expressive thing to exchange information between us. Some considerations in construction were reflected through their sketches. However, the importance of the role of sketching was to express the thoughts and representations of their words, which helped us to understand each other more about the actual needs including various problems and obstacles.

The workshop resulted in a clear understanding of how to prepare and build the houses following their design. Following the design workshop, 24 houses were built completely within eight months, following the timeframe. However, due to constraints, especially access to traditional building materials and national park regulations, some action plans were not implemented but, in turn, this became a worthwhile lesson for the next workshop.



Fig 3.14 Housing design workshop 1 in the community house.
Some households brought their children to the workshop.



Fig 3.15 The drawings by residents who attended the workshop in December 2015

Each participant has drawn the plan they designed for their own houses. The drawing consists of the house plan and the elevation or the perspective from which to show the house. The drawing scale is approximately 1:50.

3.3.6.2 Housing design workshop 2

> In the morning, Plu announced that the group of villagers in Phase 3 were to come to attend the Housing Design Workshop at the community house. Montha and I were facilitators of the workshop. I started the meeting by reminding them what we had done. Then, I introduced the background to the project and the purpose of the workshop. The Karen leaders announced the list of villagers who are part of Phase 3, consisting of 37 households. These people were selected by the community committee. However, that day, 30 households attended the workshop. We also explained why and how the committee selected them. Lastly, I summarised the remaining project budgets. During the explanation of the project background, Jorwa, a young Karen, was the translator.
>
> Field notes, 19 September 2016

This workshop was based on what we had learned from the previous workshop. The discussion focused particularly on housing challenges and the aspirations of the community with respect to costs, construction methods and beliefs. The key issues were how to use the materials in the village more effectively in order to save on the limited budget. Before design, the discussion on possible materials and cost of construction allowed them to think over building options. The process of the workshop was explained using the photos of the previous workshop. Additionally, the bamboo models were an excellent tool to help them to imagine the structure, space and form of the houses. Three households – Numchok, Porsaoy and Kittipot – created models. These bamboo models helped with drawing and designing the houses. The workshop was completed with 30 households, who would start building houses in January 2017.

After introductions, I showed them photos from the previous workshop to demonstrate what their neighbours had done. I let them see and think about their houses for a while to understand the processes. Then, I provided the tools, such as pens, pencils, coloured pens and pencils, and graph paper. I also asked them to separate into groups of five or six people in order to manage and discuss within the small groups. In the next step, I showed them how to draw the house's plan on the graph paper. On the graph paper, one square equalled one metre in their actual houses. For example, I plotted columns on the paper to define house space following their need, then drew wall lines.

After my explanation, the Karen started drawing following their needs and ideas. Drawing is a visual method that showed what and how the Karen thought about their dwellings. Drawing is generally concerned with making lines and dots to create the form of spaces onto paper representing the world of the living. It is also a form of communication to speak directly to them, as I cannot speak the Karen language. In other words, it is a visual language. Each individual household displayed differences through their needs and skills to produce visual drawings that described their wishes and characteristics. This lesson has aimed to explain the reason why and how they needed to change and adapt their houses.

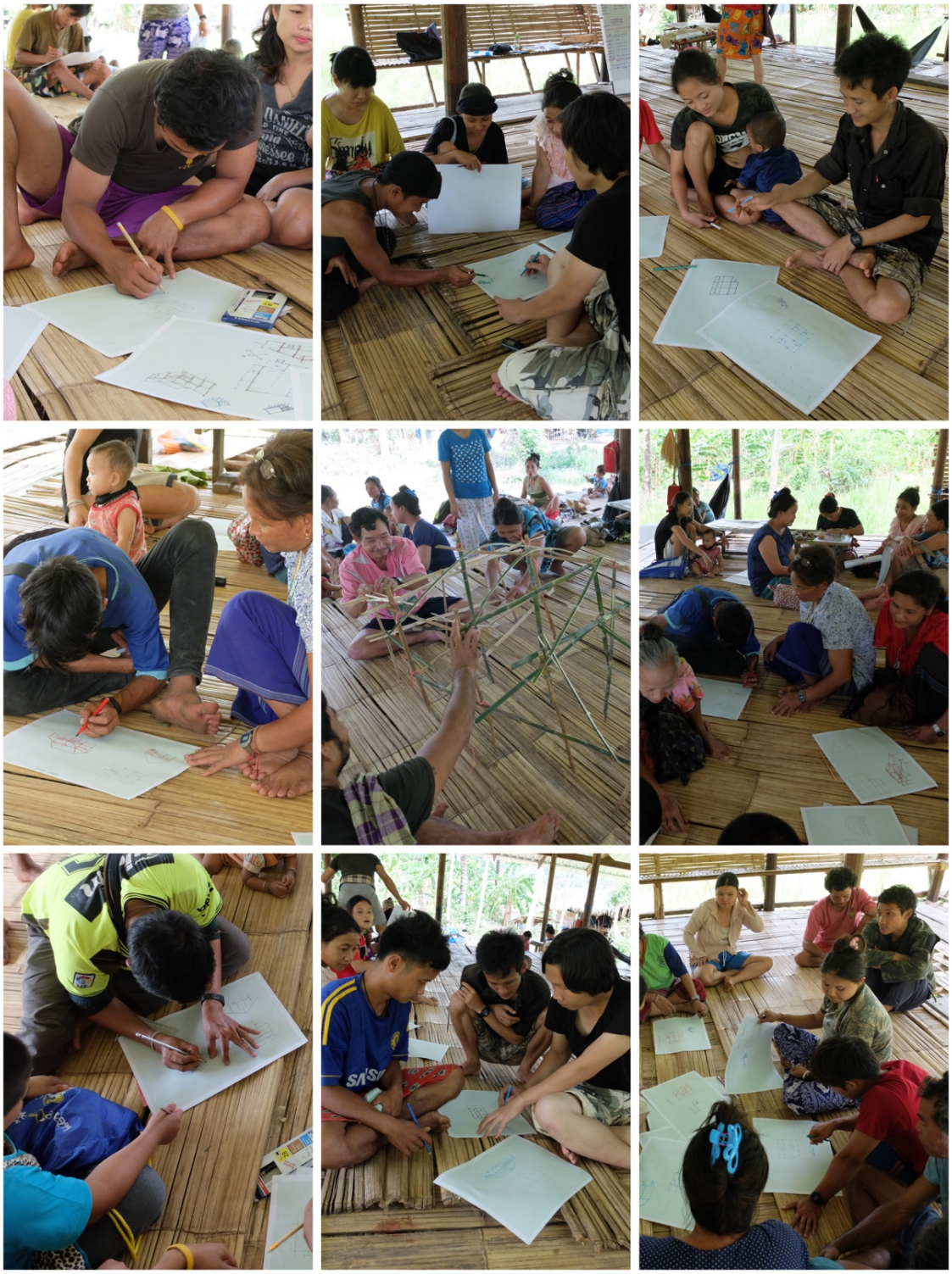


Fig 3.16 Housing design workshop 2 at the community house

This was held in September 2016 and focused on representing people's needs and minimising the cost of building materials. Workshops can be a method that empowers the community to design, implement and manage their settlement.



Fig 3.17 Drawings by women who attended the workshop in September 2016

I saw that many people felt nervous about drawing; they said that they could not draw, they had never drawn before. I said that they should try, it was easy, they would then know that they could do it. They talked and looked at each other's papers. We spent around two hours on this process. However, at the end, they could all complete it beautifully.

Field notes, September 2016

Table 3.2 The Format of the Workshops

Themes	issues
1. Introduction	• Introduce people and the project • Explain briefly the project information such as funding, regulations, and building materials • Purpose of the workshop explained by me, translated by the Karen leaders
2. Teaching and preparing	• Everyone was given graph papers, pens, pencils, pencil colours and oil pastels • Explain how to draw on graph paper such as scale and proportion • Show an example of drawing of a Karen household
3. Categorising	• People divided into small groups: groups five or six people in order to manage and discuss.
4. Getting started	• The Karen drew their houses under the constraints such as budget, building materials, regulations and techniques.
5. Presenting drawing and discussing	• Some of them explained their design within groups • Exchange ideas within group • Summary and recommendations

Running time: approximately 2 hours
Attendances: the first workshop was 14 households and the second workshop was 30 households.
Translators: young Karen people and Karen leaders

Drawing and designing houses gave useful messages while preparing for construction. It allowed people to think about the holistic views of building activities. Luck (2010: 642) mentions that *"the use of design drawings… is instrumental in the communication and exchange of information about design among the various actors involved with a construction project".* Their design drawings were the combination of many things including objects, activities and specifications of household members. In other words, in some senses, we can read their needs and activities through the design drawings. The design approach encouraged the Karen to be actively involved in the processes to ensure that the results of building met their specific needs. Both workshops were an empowerment stage for the Karen community, connecting the adaptation of culture, tradition and economics to the reality of life under the national park regulations.

The explanation to the householders makes clearly important points such as form and space. The workshop highlighted information sharing and decision-making with each other. During the workshop, the Karen considered the methods of preparing building materials for the new houses. As such, it can be said that the workshop can be a kind of method that empowers communities to design, implement and manage their own settlement (Sanoff, 2000). Regarding outcomes, a major interactive element of this process was the workshops' aim to create a sense of ownership and attachment. The emphasis on ownership is also strengthened by the declared needs, consultation and interaction of the Karen as stakeholders. This step was an approach to design encouraged to actively involve the Karen in the design processes to ensure that the results met their needs. It also represents the empowerment and democratisation of the Karen and is one approach to "homemaking". For example, building materials were selected and determined by consensus in the village meeting within the regulations of the national park. Thus, if we look at the drawings, we will see that people designed similar houses to each other as far as the materials and design characteristics were concerned. Furthermore, the building methods were also initially applied by the same group of community craftsmen to minimise the building costs. This means that they shared everything with each other in the building process.

We can perceive specific social and cultural housing norms and experiences through their design drawings that were activated by their desires and ambitions. They reached consensus in the meeting to use the same kind of building materials and drawings for each householder. These continued to gradually develop, reflecting the relations of domestic activities and the building process. All the designs were significantly linked through culture, climate, patterns of social behaviour, tradition, beliefs and economics to the reality of life.

The collaborative local-action processes of the research and project were aimed at strengthening the local community. The success of the actions relied on the Karen leaders, who understood the process and were able to lead the people to reach the

goals together. To sum up, the activities and possible solutions were generated to respect the needs of the Karen as the local actors and stakeholders and motivate them to become more active. During the diverse processes in the collaborative project, the Karen were more and more involved and became drivers of the process. For example, many Karen were open and confident enough to talk to me about their lives. In addition, the re-housing project shows that the Karen require not only a participatory procedure within the building processes, but also need influential partners to support them to live in the national park.

3.3.7 Action planning

Reviewing stages and listing issues was the first step of checking what we had done so far and what we should do next. Following the ideas of Stringer (1999), the issues were reviewed and formulated by participants to rate the issue according to the degree of importance. The planning process was followed, firstly, the initial meeting was to make understanding how the project facilitated change and inform the progress. Secondly, designing a strategy for action and to evaluate the outcome of action. Kemmis and McTaggart (1988: 76–77) point out that the first draft of the action plan should

- describe the ‘thematic concern’ and summarise why it is significant
- outline a more detailed plan and schedule of work for the project
- show how we can operate in the situation
- describe how we plan to monitor changes in activities, practices and social relationships and
- give a preliminary view about how the data will be collected as evidence, helping to account for what happened in the first action step and encouraging reflection.

However, in our process, we generally set the agenda and issues that were categorised below because each issue was stimulated by the requirements that each task needed to complete and the time frame.

- Concern: what are the main constraints now? How can we achieve the process?
- Task: how to deal with concerns?
- People: who should engage in each issue?

- Planning and timing: how can we finish on time?

For example, we discussed building material issues in the meeting in December 2015 to make an action plan and to clear up some of the issues of the building process. Here are some comments by participants.

> *"In Phase 1, each household designed [houses] differently and needed wooden columns in different numbers. For example, some houses needed only columns and rafters, while some households needed more than that. However, it depended on the householders. Actually, we overspent the budget. For instance, some households, when we surveyed your house together, your houses should have been repaired, but when we started repairing, you changed your mind so you needed to rebuild the whole house. That caused an overspend in the budget". (Plu).*
>
> *"I am an outsider; as you saw, the houses, most building materials were delivered from the town. It was not easy to carry materials to the village. It took time. I think you all knew". (Montha).*
>
> *"Actually, building a house structure took three to seven days. But when our team built, householders would ask us to build more, such as extending the space. They had to help us and that took more time". (Lon, a craftsman on a team)*
>
> *"Changing from a bamboo structure to a eucalyptus structure was better. When I built the house, I told a craftsman team to build the house structure following my requirements; after that, I built the rest of the house elements with my sons". (Sainam).*

As can be seen in the statements above, the Karen understood what happened and the problems of the project and how to deal with the issues. Therefore, our agenda was based on self-reflective cycles and developing shared qualities, because the participatory process involves the investigation of actual practices and not abstract practices (Savin-Baden and Wimpenny, 2007; Kemmis and McTaggart, 2005). Coghlan and Brannick (2000: 18) mention that *"planning action should follow from the analysis of the context, purpose of the project and the framing of the issue",* such as managing funding, preparing materials and building houses. I found that there was no formula for "good planning" because it depends on the circumstances and participants. The plan should be therefore flexible and coordinated while using the participatory method.

3.3.8 Implementation stage

This stage refers to both building houses and taking action while following the action plan. Observing and recording what happens while implementing the plan is an essential task to reflect the effect of actions. A digital camera and a smartphone were used to record participant responses and actions, bringing them together to be analysed in the next stage. Also, the fundamental technique was to take notes and record sound via a digital sound recorder. To investigate the process, it is important to think in terms of the team or group rather than individuals, because discussing and talking in groups indicated the conditions of relatives' and friends' statuses (both speakers and listeners) (Stringer, 1999). Lastly, the use of forms of language is essential in showing equal status; for example, using "*we*" rather than "*I*" (Stringer, 1999). Additionally, observing the changes of house forms and elements, we will see how the house plan changed and how it differs from the old one, and how some houses remain unchanged. This was useful in analysing the sequence of changes before proceeding to the evaluation stage.

3.3.9 Monitoring and evaluating stages

Monitoring and evaluating is the last stage of our working cycle, integrating the beginning with the end. The effectiveness of the participatory processes is related to the learning process and the realisation of the limitations of the processes that we are likely to face in action, particularly the social and political contexts (Pain and Francis, 2003). The initial step was to combine the data to share ideas and visions about the problems and solutions. Greenwood and Levin (1998: 168) emphasise the importance of "*creating a shared vision*". This process made clear what we have learned so far from the cycle and how to create and adapt it for future study and building processes, by considering the cycle of participation in housing.

Furthermore, some limitations and strengths of the process were identified at this stage. It was monitored and evaluated from the different perspectives of the participants. The meeting between facilitators, householders and the Karen committee was carried out to check progress and learn lessons from the implementation stage to revise and improve the strategies. Therefore, levels of participation in housing may rise or fall, depending on the situation. In order to provide clear information and reflection, we should be honest and self-critical about what was planned and what actually happened (Pain and Francis, 2003). However, a barrier here was the language that we needed to express thoughts directly to each other; on many occasions, we got stuck on the explanation of what we wanted to say.



Fig 3.18 Organising the action plan

My NGO colleague, the Karen leaders and I organising the action plan to build houses (Phase 2) at the community house in December 2015. The agenda was that we planned to prepare the building materials and equipment to build houses, and also to solve the problems in building houses in Phase 1. Photo: Montha Ajchriyakul (my NGO colleague)



Fig 3.19 Implementation stage

3.4 VARIETY OF DATA COLLECTION METHODS

Numerous forms of data collection methods were applied in the study. This section therefore includes several diverse research methods such as drawing, making models, interviewing, focus groups, photographs and participant observation methods. Using different sorts of data collection helps in managing different types of knowledge and information. Employing appropriate methods is similar to driving safely (Rugg and Petre, 2007). Thus, this section aims to examine how the variety of data collection methods worked in relation to the research objectives.

3.4.1 Drawing and sketching

> *Even though architectural sketches are uniquely personal, there are several functions which are common to them. Sketches may facilitate discovery and the first inspiration for conceptual beginnings, they can be part of the communication between parties involved in the process, or they are often a means to record mental impressions. Sketches can be employed to evaluate decisions and suggest refinement; they are used as diagrams to analyse a difficult thought, and they help the architect to visualize and thus understand complex configurations.*
>
> (Smith, 2008: 2)

I usually start any fieldwork with sketching in order to help me remember the places. This study employs drawing methods by dividing them into two types: those I generated and those the Karen generated. I would like to discuss the first type in this section, because the second type was discussed in the housing design workshop. Drawings are the graphic representations used in the in-depth survey. I produced a series of sketches with pens and watercolours in plan, sections, elevations, layouts and perspectives (Fig. 3.21). They are defined as visible artefacts to express information (Engelhardt, 2002) and representations predominantly comprise visual signs. My sketches are about understanding the subject rather than copying it, and have therefore become a way to see and understand the phenomenon that enables enquiry into places. This approach is a tool to record the graphic data and observe the phenomena. For example, my series of sketches divides into four themes: internal spaces, external house forms, plans and layouts, and activities. In the 2015 fieldwork, I sketched everything that I was interested in; in other words, I did not have any direction on what I should focus. In my fieldwork in 2016, I sketched particular house forms and layouts to clarify the locations of houses and boundaries. In my last fieldwork in 2017, I made the sketches focusing particularly on internal spaces and spatial arrangements.

Also, drawing provided a starting point for the conversation with the Karen on what we saw and perceived (Brier and Lebbin, 2015). Varga-Atkins and O'Brian (2009) also note that both drawing and diagrams can be valuable as a means of collecting data.

They further note that the purpose of drawings can be to capture a salient feature of the phenomenon under investigation. My sketching is based on observation; in other words, sketching is recording events. Of course, it is to some degree my personal technique and skill that I aimed to use as my diary. Sometimes I used it to discuss house layouts; for example, I used my sketch to identify how people's old houses had a particular layout. Also, I sketched the old house and new house to compare and discuss with the householders. Personally, I think my hand sketching was more powerful than taking a photograph regarding emotion and feeling. Frequently, sketching revealed something that taking photographs could not do, because the sketches were an analysis in order to understand the Karen house in various perspectives.

My sketches supported two-way communication and increased the validity of the research process. I used drawing and sketching to merge the abstract ideas into visual images and then tried to gather an understanding of the objects and places. *"It acts as a bridge between the inner world of imagination and reason, and the outer world of communication and sharing of ideas"* (Hope, 2008: 11). It contains an intellectual reflection describing a concept of dwelling. It identifies and generates the arguments of study and improves the efficiency of communication (Stapenhorst, 2016).



Fig 3.20 My sketches and the Karen during building new houses
My sketches derived from our conversation that I used to compare the design before and after building. I found that some households changed the design while most people built the houses following the drawing from the workshops.



Fig 3.21 Some sketches from the fieldwork in December 2015

3.4.2 Bamboo model

> 2:00 pm: A workshop and meeting.
> I am taking a nap after lunch at the community house. I heard a noise; it is Doimoyaw. He has come with a bamboo model. I get up and sit on the floor. *"Ajarn, this is my house",* Doimooyaw said and showed me a model. I feel surprised that he made a model. Some people gradually walk to the community house. Doimooyaw put the model on the floor in the centre of the community house. People come to see and talk in the Karen language. I do not understand what they are talking about, but I feel that they are thinking and talking about their houses through the model. The time has come; we start the workshop.
>
> Field notes, 28 December 2015

As mentioned in the design workshop, the model is a part of the design and building processes, including the study of creativity and problem-solving. A model is like an architectural drawing. It is a three-dimensional sketch, ideas made visible (Morris, 2006). It was easily understood by the Karen, who were without experience in spatial thinking. We therefore made models before drawing, because we needed to use them as examples to understand lines and forms. A model also displays problems and goals. It is a physical and structural representation of a house design showing the relationship between spaces, the structure and the occupant's activities. It becomes a design tool for the three-dimensional understanding of structure, form and space for them. Furthermore, the model is also a choice to use in the analysis of problems and setting goals. It was a tool that opened discussion in the group drawing sessions, providing different viewpoints and concepts.

Sometimes we also used it to understand and explain cultural aspects of the building process. In the workshops, on many occasions I was curious about their living system and house structure system; they would explain these to me through models. They also taught me how to name each house element in the Karen language. These reflected the ideal of what a traditional house should be like.

A model is easily comprehended in the visual field. It demonstrates not only spatial relations, such as comparisons of size (Morris, 2006), but desires, needs and income. This helps us to imagine how to organise spaces into places. The geometry of the bamboo model suggests that space is organised and designed into rectangles or squares. As we have seen in Figs. 3.22 and 3.23, the people tended to make rectangular spaces because they designed houses that had a modular plan. This shows a straightforward vocabulary of basic architectural elements; roof, column, wall and floor. Between columns, layers of space are defined between the entrance, main room and other spaces. To sum up, the model is an instrument to represent the design and building process and to generate strategies to support the design decisions. However, one of the most interesting things is the desire of occupants; it is an empowering tool to encourage people to prepare for the building stage.

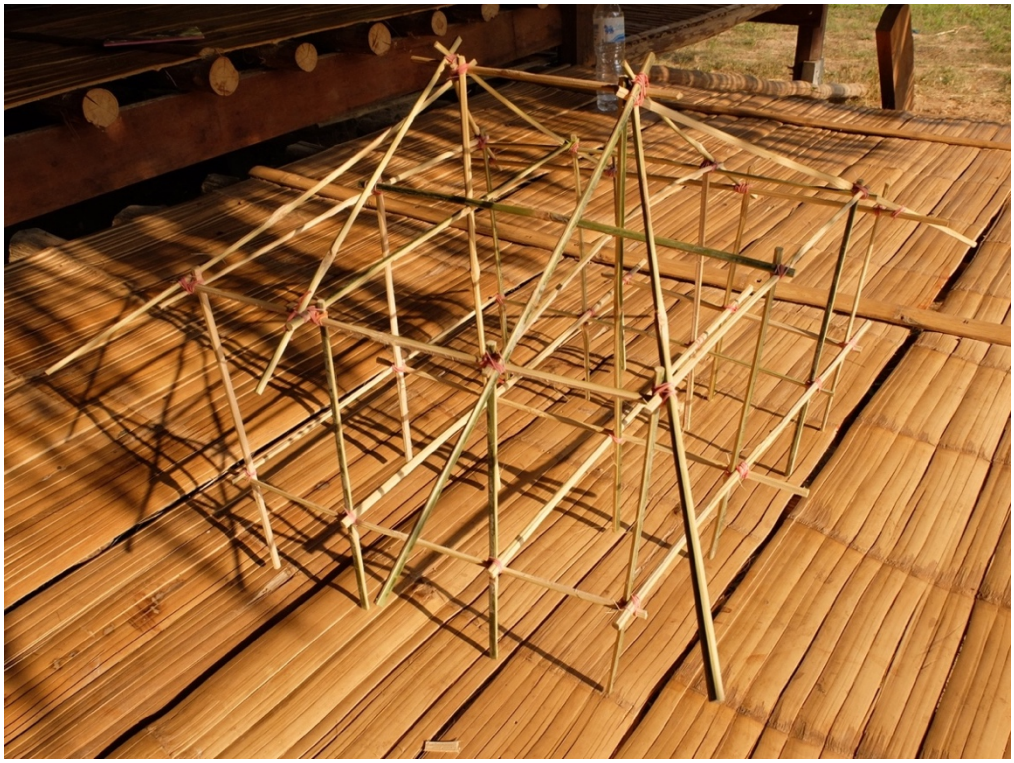


Fig 3.22 A bamboo model by Doimooyaw



Fig 3.23 A model by Kittipot Chaya, who built a new house in 2017

The models were made quickly by using pieces of bamboo and wood. Although the Karen created a variety of scale models, all models were based on the same principles and met the same general requirements of functionality. Practical concerns were the cost of constructing the house due to the limited budget of around £800 per house covering 12 wooden columns, joints, roofing materials and craftsmen's wages.



Fig 3.24 Doimooyaw Pugad with his bamboo model and drawing
He created a bamboo model by using pieces of bamboo and elastic bands.

3.4.3 Interviewing

The interview method constructs the narratives to understand the social world and the meaning behind circumstances, providing a means to explore the different points of view of research subjects. It is a two-way interaction between the interviewer and respondent to collect information and the most widely used technique to conduct a systematic social inquiry (Bryman, 2012). The purpose of an interview is to gather descriptions of the life-world of the interviewee (Kvale, 1983: 174). It also labels the notion of the interview as an encounter (Goffman, 2005), and the core concept of the interview is an interactive, real-time and natural language process (Rugg and Petre, 2007: 135). The basic types of interview were employed in this study: both structured and semi-structured interviews. Both were applied to one-to-one and one-to-many interactions (Rugg and Petre, 2007); for instance, interviewing individual residents, the group of leaders and a craftsman. However, it should be borne in mind that the nature of information should be expressed through the respondents naturally without any pressure. I usually employed interview methods alongside other methods such as workshops, drawing, participant observation and photographs. The aim was to find out information covering the main issues, such as people's social life and structure, and cultural, economic, political and environmental issues. My interviews focused on households who built and rebuilt new houses. For a full list of interviewees see Appendix A.

Interviewing provided a route to create empirical data by questioning the Karen. I would therefore like to reflect both the positive and limiting aspects of it based on my experience. Opdenakker (2006) mentions that the face-to-face interview is characterised by coincident communication in time and place. The key strength of the interview was accessing in-depth information, and the answers of the interviewee were spontaneous. The Karen also provided a means of experience of individual life with first-hand knowledge. Face-to-face interviews were recorded using an electronic sound recorder, assisting me to report conversations more accurately than by only taking notes. Although the interviews were recorded, taking notes during the fieldwork was still an essential technique to recheck alongside the sound recording. During interviews, we can also create a good interview atmosphere because we can control the situation.

A limitation of the interview was that I cannot speak the Karen language fluently; thus, I had to use translators to translate between the Karen and Thai languages. It was complicated to understand people's thoughts entirely and usually took time. However, considering ethical issues at all stages of the interview processes is very important; for example, considering the intrusion on personal respondents' lives concerning the time allocated and the level of sensitivity of questions asked. Sometimes, when I needed to interview the Karen about sensitive issues, I had to consult a leader or translator to make sure the questions were acceptable.

3.4.4 Focus groups as dynamic information

"The focus group is a kind of group interview" (Bryman, 2012: 502) that *"capitalises on communication between researcher and participants to generate data*" (Kitzinger, 1995: 299). The focus group is an interactive interview, in which we will ask questions of the group to respond to, and participants will be encouraged to discuss, exchange ideas and comment to search experiences and perspectives. This method, therefore, is especially useful for exploring people's knowledge and experiences. In a general sense, Morgan (1997) mentions that the basic elements of a focus group require defined objectives, atmosphere, an awareness to listen, a facilitator, a well-organised structure and systematic analysis. Similarly, Parker and Tritter (2006: 24) indicate that *"the most common purpose of [the] focus group interview is for an in-depth exploration of a topic by encouraging participants to discuss specific issues due to sometimes they have something in common and different each other, such as lifestyle, religion and occupation".*

Focus groups created a variety of ways of communication for the Karen, identifying group norms and cultural values. Further, they aimed to reassure those who were reluctant to be interviewed on their own and encourage contributions from those who felt they needed to speak more. They enabled the Karen to speak and express their thoughts, feelings and information gained from groups. We often carried out focus groups on crucial issues and those on which we needed collective thought rather than that of individuals; for example, political issues – land use, park policies or the national heritage site – and cultural issues – the history of the village, original land or the building of houses. This is because we needed to combine individuals' thoughts and check the validity of information (Morgan, 2001). Hamel (2001) also mentions that the atmosphere of the focus group interview structure encourages people to speak freely and completely about behaviours and opinions.

As mentioned, political and cultural issues are such important subjects that we needed to provide a form to collect information. As can be seen in Figs. 3.25, 3.26 and 3.27, focus groups limited the number of participants. For our group discussion, there were no more than 10–12 people, because we needed to gain in-depth and significant information and make sure that all participants had a chance to speak. Sometimes this was likely to generate more data than face-to-face interviews because we could control and organise in-depth discussion via a logical sequence of open-ended questions, and encourage the Karen to develop arguments and generate new ideas. In summary, the focus group method is a valuable way of gaining in-depth information and helped me to understand the Karen. The interactions also allowed the Karen to react and build on the responses of group members and offered an excellent opportunity for me to hear the local language and vernacular used by the Karen, although it was sometimes difficult to control.



Fig 3.25 A group discussion with Karen leaders and villagers in 2015
We discussed the park policies and the proposed World Heritage site that would affect their way of life.



Fig 3.26 A focus group in September 2016
We discussed the history of the original land. The idea was to invite the people who used to live there to discuss the details of stories of the original land. A Karen leader was a translator. We held the discussion at Jaroen's house, where I often slept when I visited the village.



Fig 3.27 A group discussion with elderly Karen in September 2017

We discussed the history of the annual rituals when they were on the original land. The idea was to invite the elderly Karen to address the issues. Traditionally, the Karen have activities or rituals that rely on the traditional agriculture of every month. A young Karen was a translator. We met at the community house.

Table 3.3 Focus Groups 2015–2017

Month/Year	Themes	Purpose	Participants	Number of participants
27 December 2015	Policies and culture	To understand the policies that affect the Karen life	Leaders and others	4
28 December 2015	Building houses	To understand the process of building houses in both traditional and modified styles	Team of craftsmen	5
July 2016	Policies and culture	To clarify more about policies and way of life	Leaders and others	5
August 2016	History of original land	To find out the history of the village	Elderly and young Karen	6
September 2016	Building houses	To find problems of building processes	Team of craftsmen	5
September 2016	Kinship groups	To discover the kinship groups of the village	People from each kinship group	3–6
18 September 2016	History of original land	To find out more about the history of the village	Karen who lived there	10
4 September 2017	Annual rituals	To understand the annual rituals and ceremonies	Elderly Karen	4

3.4.5 Photographic method

We employed various forms of visual methods to collect data, consisting of photographs, drawings and mapping. All are alternative methods to reveal the participants' views of issues that we discuss with them (Sclater, 2003). Emmison (2004) mentions that visual methods demonstrate the popular maxim that photographs can speak for themselves. Photography is a means of recording and displaying information; Huss (2012: 1441) states that *"the images are a universal language and [photographs] can enable the expression of, and the clarification of cultural differences".* I used photographs to generate verbal commentary through the interview processes and group discussions. Manson (2002) argues that using images as an illustration of words is a reduction of their inherent characteristics. In contrast, Huss and Cwikel (2005) argue that the use of images in research can help to clarify words.

Photographs also provided the illustrative material for the project, generated in conjunction with other methods such as interviewing or focus groups. For example, photos were used within the project concerning the process of their making, and the images created the discussion between the respondents and me because *"images… [contain] information which can be brought to bear on the investigation of social and cultural processes"* (Emmison, 2004: 249). The photographic methods are divided into three types: those generated by the Karen, photographs found in the Karen's houses and those generated by me.

3.4.5.1 Karen-generated photos and photo elicitation

The Karen generated photographs to reflect their ideas and thoughts. In December 2015, I asked them to take three photos per household concerning the question "What are the important things in their houses?" The result was that 59 households joined in this activity and I obtained around 170 photos reflecting their current way of life. The people generated photographs enabling them to show me how they viewed the world. After that, I categorised the photos into groups, because I found that they took photos of similar things. Thus, they were grouped into twelve categories: cooking equipment, agricultural tools, water, rice, electricity, pictures of the King, images of the Buddha, people, traditional clothing, building material, money and mortar. Then, I selected a photo from each group – a total of twelve photos. At the next stage, these photographs were brought to explore and clarify the values, feelings and thoughts on a particular issue. This method was used with a variety of participants of all ages.

I asked the participants to choose and rank the photographs, representing this in a diamond formation. Regarding diamond ranking, *"it is a recognized thinking skills tool, valued for extracting constructs and for facilitating talk"* (Clark *et al.*, 2013: 6). The individual participant is asked to rank the items in order from the most to the least important. The contents therefore relate to the participant's experience. Next, there is a discussion based on the ranking of the photographs. This was a kind of game that

encouraged the Karen to think more about objects, artefacts or things in their houses. This method encouraged them to give their opinions and represent their range of views. The ranking of photographs was a channel to understand the Karen's thoughts, particularly in the absence of a shared verbal language.



Fig 3.28 Nor-e takes three photographs

He took three photos: a pot, a wooden mortar and plastic container, and bags of rice. These were important items in his house.



Fig 3.29 Diamond ranking showing nine important things in a Karen house
In 2016, I asked Jua to select photos and rank them from the most to the least important. After that, we discussed this ranking, why and how these were important and other issues following these questions.

3.4.5.2 Photographs found in Karen houses

Photographs may be found in people's houses. In this case, the photos were taken by the occupants or others related to their families. The use of photographs to mediate one-to-one interviews was a kind of bridge linking between the worlds of the Karen and me. Photographs convey ideas and perspectives through discussion to share understanding (Clark *et al.,* 2013). I used them as a tool during interviews with occupants. These photos can be found in some Karen houses. On many occasions, I asked them for permission to see inside the houses and took photos. Then, they always allowed me to access the interior. I usually walked and looked around inside to see how the house was different or similar to other houses. In some cases, they hung family or personal photos as well as children's drawings and calendars on the bamboo walls. I became interested in them in terms of who they were, where they were and why there were photos of them. These photos contained moments and stories. Then, I often used these photos to interview the people or make conversation. Most questions and conversations were about family life and personal histories. These photos helped them to tell the stories and reflect the past.

When the Karen talked about photo stories, they were usually happy and proud to present the stories. The photograph is not only a source of information, but it is a prompt in a collective interaction (Clark *et al.,* 2013). Also, the discussions based on photographs organised knowledge and helped to build recognition relating to the experience of the Karen. This was a method that promoted an inclusive approach to encouraging and involving them in the project.



Fig 3.30 Photo found in Joruemi's house

Many photographs were found on house walls. These tell hundreds of stories. They convey stories, such as emotions, moods, narratives or messages. For example, this photo is Joruemi's daughter when she was young (see their house in Chapter 6).

3.4.5.3 Photographic survey

I generated photographs based on the experience of different data gathering methods. This is divided into four sub-techniques.

3.4.5.3.1 Time of change and growth

Change and growth are the key forms of the community process, such as change of house forms, land use and environments. Therefore, the important task is documenting these to interpret the phenomenon of the community. When deciding what to capture in photographs, I usually focus on what people notice and what relates to the research objectives. Capturing the growth of the house is helpful in comparing the scale, size, form and spaces to record the change in context. Changes in Karen houses could help me to become engaged in creatively documenting their way of life and particularly the sequence of re-housing and transformation. All matters of context were employed to bear witness to changes by capturing a moment to document that brought me to understand them. The large change in house development in every part of the journey was essential. This was not only a symbolic story of the Karen, but also very important for them.

3.4.5.3.2 Routines: everyday practice

Staying in the community to be a part of it for a while is a vital practice to observe the phenomenon. Waking, eating and sleeping every day is similar to people's daily rhythms, being the exact timing of the routines for the morning, noon and night. In the morning, the Karen usually wake before the sun rises; therefore, capturing the meaningful moments of the morning can start at sunrise. Breakfast time can be a telling way to document a simple life with a simple meal. After breakfast, the midday meal has much more elements than the morning meal. As for dinner, it is family time. To capture the preparation of dinner is to tell the story of family meals. Routines of the middle of the day have a variety of activities such as playing, school, resting, working, cooking or cleaning. Moreover, children spend much of their daily life in school. Therefore, much of the school experience is routine to document. Uniforms or bags are the props of the Karen children's daily life that can be added to the visual narrative. Capturing people working or children playing helped me not only to document accordingly, but also acknowledge and appreciate the pulse of daily life. The bedtime routine generally occurs around 9 pm. It is time for the Karen to rest their bodies and drift off to sleep on the bamboo floor. There is plenty to acknowledge in telling bedtime photo stories.



Fig 3.31 Karen children swimming

One of the most beautiful scenes is the swimming period in the daily routine of the Karen, indicating the relationship between life and nature. A river is a place for bathing, swimming and drinking water. In summer the river is very clear, and the children often come to swim in the river because the weather is hot. This was also my place to swim when I stayed in the village.



Fig 3.32 Karen chillies

Karen chillies are well known for their quality and are very hot. The Karen consume chillies at every meal by cooking chilli paste with fresh vegetables and fish. They also sell fresh and dry chillies to generate domestic income.

3.4.5.3.3 Details of life

Clarifying research questions contribute to determining what one should concentrate on and how the photograph can stand as evidence of the story. Observing and capturing everyday life in details can provide more than the stories on their own. Capturing house elements helps to see what is beautiful in the mundane. We can tell more by framing the details. The details of life express the subject matter. They animate the gesture that tells an entire story. When capturing the details, we can go beyond the expression to how people feel. Capturing small elements or items in life such as tools, equipment, foods or toys can identify and visually describe the Karen life. Sometimes, the Karen's shirts and textile patterns can be symbols of current circumstances. Accessories also illustrate an outward expression of life. For example, colour, texture and shape are attractive ways of framing people in pictures that can express their taste. Additionally, body movement creates excellent images and details for explaining activities.

3.4.5.3.4 Spaces and places

It is undeniable that the majority of activities happen in and around the house, which I have documented in detail. For example, the cooking area or kitchen is a centre of the house, as its heart. Foods also illustrate cultural objects and stories. Floor and wall patterns offer visual interest, and also textures of spaces. Capturing the moment of people being in the space that they call home emphasises the existing space. Many things about them are revealed within the spaces to tell their stories, such as objects, foods and clothing. Although much of people's living is done at home, there are many places one should also record on a regular basis, including the agricultural areas. I frequently spent time documenting them, which encouraged me to discover the new things around the village. These places are part of dwelling and daily life in the sense of being part of people's homes.

3.4.6 Mapping: geo-social and cultural mapping

Creating maps was a fundamental step to understand the village in terms of physical, social and cultural issues. A map has the potential to represent a scientific basis for architectural design, capable of guiding its decisions (Stapenhorst, 2016). It also promoted a good starting point for conversations to show what was happening in the village. Creating a map was a way of managing and organising the data by drawing on maps throughout the period of research. It was used to connect to the other data such as population and kinship data.

I created the first map of the village in 2013 to illustrate its primary data and physical characteristics (Fig. 3.33). It was created by consulting the aerial map from Google Earth to check directions, proportions and scale. To develop the spatial information and characteristics of space such as the river, paths and houses, it was enlarged and labelled to analyse the relationships between them. Text and name placement were marked on the map. In terms of features, I used colour to indicate classifications of objects. It may be said that the map does not only display the physical appearance, but also the social networking in which there was capability to interact with each other. After that, the map was improved by adding updated information whenever I visited the village up until the present day. It shows houses' positions, the village area, the extent of the fields, the river and the school. It became an important tool to create relationships with the Karen, because when I was drawing a map, I had to interview the householders at the same time and then write their names down on a map. This made me recognise them quickly and effectively. Additionally, the map enabled them to pinpoint specific data. Helping many young Karen and leaders from the beginning of the map-making was significant, because they knew the village better than me. For example, they helped me to identify and clarify the names of householders, rivers, creeks and places on both the original and the current land.

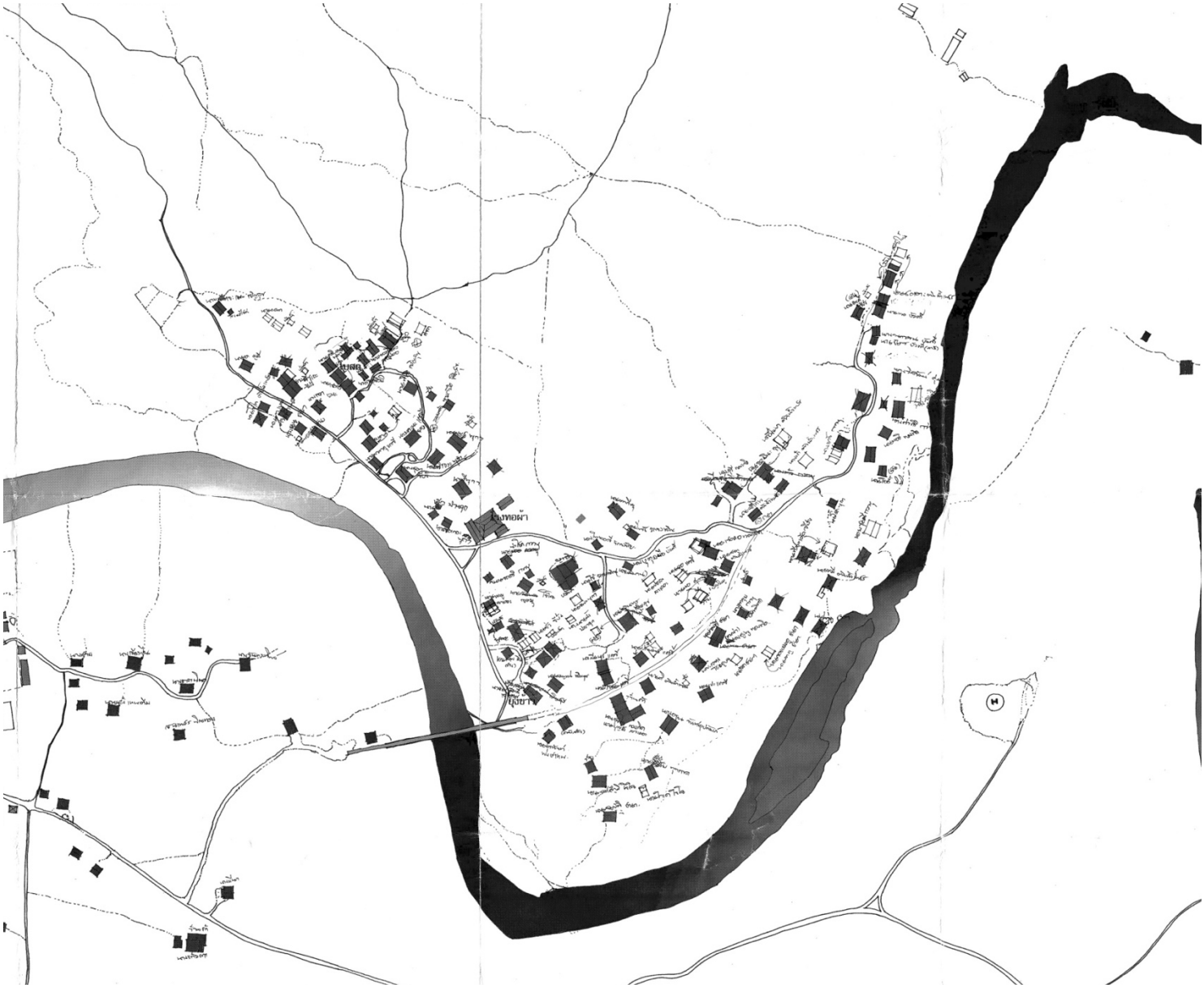


Fig 3.33 Mapping houses in 2013
(See updated map Fig. 4.4)

July 2017

Mapping the original land

At the community house, we attempt to locate the rivers, streams, fields and land of villagers who used to live at Jaipandin and Banggloy Bon (the original land) before they were moved to the present village. We started locating the first things that they are able to recognise first. Rivers and streams are the first items to annotate. Many places are marked by villagers who used to live around there or had experience of there.

We are mapping at the community house when some people walk past the building; they come to see us and tell where they were, particularly the elderly people. This makes them think back to the past. They can give the names of rivers and headstreams and pass this knowledge on to the next generation. During mapping, fortunately, there was a Karen, who is still living on the original land, who came to the village to visit his relative. He comes to the community house and helps me to annotate the map. He knows a great deal about the area. That is helpful, because the original land is a huge and complex area, so we need many people who lived there to say where they were and how things are.

A map does not only indicate locations and places, but also presents social spaces linking physical areas, making this map a vital tool to manage data. Furthermore, various data can be found on a map.



Fig 3.34 Mapping the original land

We mapped the name of creeks, rivers and the position of the dwelling of each family. Lee pointed on a map to show where they lived. It shows that they lived in scattered areas in the forest, and also lived in family groups; one group may consist of parents, sons and daughters. When their sons or daughters get married, they usually build houses near to their parents. When they move, they usually move together. (Map from the Sustainable Development Foundation (Northern Thailand)).

3.4.7 Genealogical method: understanding community and personal histories

The genealogical method was a means to understand the history of the Karen community as well as the history of each kinship group by interviewing and examining historical records to gain information about their kinships. The result is displayed in the form of a family tree (see Fig. A22). It shows that Karen society is still associated with the traditional system, because the kinship system still has an influence on activities and tradition, which organises social relationships, families, economics and politics.

This method makes clear where people came from. In addition, the community and family history demonstrate the belief and living systems. For instance, many Karen people still insist on marrying within and between groups leading to the creation of strong relationships. This method also ideally indicates original records and first-hand information to identify the identity and kinship relating to spatial relationships. Family stories are fascinating, creating a foundation for documentary research by evaluating the stories and evidence about ancestors.

Collaborative discovery is a key, allowing us to access in-depth information, and it also creates a good relationship with the respondents. When we surveyed and documented data, we needed a translator. We interviewed elderly people living in the village. They were pleased to give information about their kinships, because they wanted to know the full details of their kinships, as this was the first time the family tree of the village had been created.

Various records were used in this method, including birth, death, marriage, original dwelling, relocation, migration, relatives and parents. After each kinship was primarily completed, the basic information was double-checked to ensure that the information was correct. Furthermore, the Karen traditionally have no surname or family name. They had just the one name without documentation such as a birth certificate or identity card. Thus, the surname of many kinships refers to the name of people's parents or to a place where they lived. We attempted to gather the kinship data in order to analyse the social system, leading to an understanding of the structure of the community.



Fig 3.35 Interviewing Tongdee Chaya about his kinship



Fig 3.36 Interviewing Jorhor Tonnamped about his kinship

Jorhor's surname was given to him around 20 years ago by a state official when he had to have an identity card as a Thai citizen. Therefore, the surname of many people in the village was given by the state official. As can be seen in Figure, Plu was translating the personal history of Jorhor. I listened and drew out his kinship on the paper to connect to others' family groups.

3.4.8 Analysis and interpretation

Thinking about the analysis allows us to explore, interpret and make sense of the field notes and data (Hunter *et al.,* 2013). This part is an approach to analyse the documents and texts from the fieldworks through a systematic description of the contents. The main use of content analysis was in the examination of visual images and transcribed texts following themes of study. The identification of themes was related to the research objectives, such as cultural, political, economic, environmental and building issues. Also, narrative analysis aimed to understand the world of the Karen by analysing the participants' stories. This focused on what the stories were about and how they related to the themes of study. The patterns of responses related data to research concerns, such as the research objectives. Narrative inquiry was used to describe the methods of data gathering, analysis and the form of representation using stories to communicate the research findings (Hunter *et al.,* 2013). This also reflects my interests and concerns in many different forms of information. One of the most challenging tasks was to control respondents in group discussions (Berg, 2007) and the recordings of these were more time-consuming to transcribe than records of individual interviews (Bryman, 2012). Other issues concern the unpredictability of group discussion and the emergence of sensitive topics (Hyden and Bulow, 2003; Frankland and Bloor, 1999).

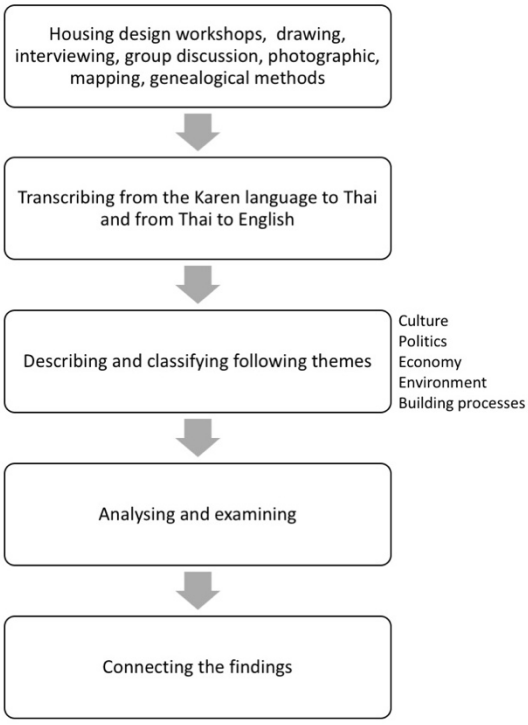


Fig 3.37 The structure of analysis

The structural analysis consists of the organisation of data from various methods, transcribing, classifying, examining and connecting the findings for the explanation of themes and evaluation of the processes.

3.5 CONCLUSION

This chapter has examined the approaches and methods used in the study. It can be seen that I used diverse traditions in social science methods and visual methods to document areas of social life. The fieldwork gives direct experience of the actual practices of the Karen. We can see the ideas in the ways in which the Karen organise their world mentally. In addition, it was an opportunity to escape from the university into material and social reality. Working together provides an understanding of the theoretical relationship between people and their environment and allows insight into their cultural knowledge. For example, the design workshop was an interactive process of sharing ideas to explore possible housing solutions. People presented their roles as the principal actors of change. In this sense, re-housing is not just about building houses, but about building the community and people's processes as well.

Additionally, the interviewing method constructed an explanation to understand the phenomenon through an interactive real-time and natural language process, while group discussion was employed to support an in-depth exploration of the issues. Both were not merely a form of data collection, but also a form of creation of relationships between participants. Visual methods such as photographs, drawing, making models and mapping created a visual language containing the information to investigate and understand the social and cultural processes. They provided a neutral means of accessing Karen perspectives and enabling them to speak for themselves and empowering them at the same time. Also, community history was revealed by the genealogical method, aiming to discover the stories of community and relationship through people's personal histories.

Becoming involved in the community was an essential challenging task to know people and understand the culture and environment by immersing myself in the village. Walking, surveying and talking with the Karen were useful ways of offering an insight into the culture and environment. I learned about culture and environment – the kind that offers a multiplicity of opportunities to develop relationships. Engaging the community as a member by working with them was a chance to learn from their everyday experience. At the end of the project, I thought that we had learned many things from each other. I know every household and most people in the village; in turn, they all now know who I am and what my vision is. We are already joined together, and we are travelling in the same boat. This seems not to end even when we have completed our project.



CHAPTER 4: LIVELIHOODS AND DWELLING SECURITY: THE CHALLENGES OF INDIGENOUS KAREN PEOPLE

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LIVELIHOODS AND DWELLING SECURITY: THE CHALLENGES OF INDIGENOUS KAREN PEOPLE

I remember my first sight of the Banggloy village in 2013. At that time, I visited the village with CODI staff, Montha and Preu;[14] we drove a car past the creeks and the river. In the dry season, the river was dry, so the car could run across the river. We parked the car near the church, and we stayed in the house of the Karen Christian teacher,[15] and we cooked food in the front of the house. Some Karen asked us why we had come here and what we were going to do. Preu, a northern Karen, explained to them that we had just come to learn about the village and they understood us.

I walked around the village unfamiliarly. Certainly, this was my first time; everything seemed strange. I did not know anybody and people looked at me: who was this guy? I realised that community and people's stories were fundamental, but were very significant in seeking out the direction of development. Hence, understanding the context and people was the priority because they are the centre of the process.

I realised that we needed a lot of time to study the context and required relevant discipline that were useful for the project. For developmental practice, we needed multiple disciplines to deal with the project.

That night, we stayed in the village and left on the following day in the afternoon with many curious questions.

[14] Preu is a northern Karen. He is a friend of Montha. We visited his village in 2012 and we asked him to help us to talk and facilitate meetings.

[15] It is estimated that about 10 per cent of the Karen population are Christian. They celebrate in the bamboo church. However, Karen Buddhists and Christians retain elements of traditional beliefs.

The Banggloy Karen are an indigenous ethnic minority group who cannot fully continue with their traditional way of life. They have been evicted from their village home to an allocated piece of land following state policy. The misunderstanding of the livelihood system of the Karen is a critical problem. This chapter aims to create understanding of the indigenous Karen people. It presents the circumstances of indigenous people and the Karen in Thailand. One of the main obstacles facing the Karen are the political issues that impact on their traditional way of life. Also, their resettlement challenges their traditional practices to sustain life.

4.1 UNDERSTANDING THE KAREN

4.1.1 The problems of indigenous people in Thailand

According to the official survey of 2002, there were 923,257 “hill tribe people” living in 20 provinces in the north and the west of Thailand, consisting of nine hill tribes: *Hmong, Karen, Lisu, Mien, Akha, Lahu, Lua, Thin* and *Khamu* (Erni and Stidsen, 2006: 315). Furthermore, *Indigenous World 2005* reported that it was estimated around 16 percent of the population in Thailand live in reserved areas or conservation forests, of which most of them are indigenous people who experience restrictions on their cultivation and dwelling rights (Erni and Stidsen, 2005).

Many indigenous groups are among the 2,700 communities living illegally on protected forested areas or the national park (Rattanakrajangsri, 2014). The largest group is the Karen people, found in diverse areas located close to the national boundaries of both northern and western Thailand. The government views all indigenous people of Thailand as “ethnic people”, or in the Thai language, “*chon phao*”. Also, the use of the terms *“chao khao*” or “highland people” within official Thai discourse reflects the prevailing stereotype of a single group of highlanders, which denies the rich cultural, ethnic, historical and linguistic diversities of the indigenous and tribal people (Erni, 2002: 272). They share experiences caused by discriminatory policies, including a widespread misconception of indigenous peoples as drug producers and posing a threat to national security (Erni, 2009: 335).

Therefore, the tribal and indigenous communities have had to struggle to maintain their identities under the social and political environment of the Thai state. For example, in 2010, around 296,000 indigenous people lacked Thai citizenship causing them to lose opportunities to access public services such as a basic health service, education and welfare (Rattanakrajangsri, 2010). Also, the lack of citizenship is a factor leaving them more defenceless to human rights violations.

4.1.2 Who are the Karen people?

The Karen are the largest ethnic minority group in Thailand. They usually live in areas rich in natural resources; for this reason, they have become targets of national park officials to evacuate them from their homes in the forest. They hold many kinds of Buddhist, Christian and animist beliefs; in the same way, they speak many mutually unintelligible languages or dialects. Subgroups use their name to designate themselves: for instance, *Pgha k'nyau* or *Jgaw* for *Sgaw* Karen; *Phloung* for *Pwo* Karen; *Pa-O* for *Taungthu* or Black Karen; *Bwe* for *Kayah* Karen (Marshall, 1997; Rattakul and Buruspat, 1995). However, the Sgaw group is the largest (Thawnghmung, 2012) and each Karen subgroup can be identified through its spoken languages.

Marshall (1997) mentions that the earliest Karen settled in an area of the *Yang-Tse-Kiang* river in China, and migrated to Myanmar and Thailand. He further notes that the name "Karen" is derived from the name of one of the four ancient tribes of China, the *Ch'iang* (ancient pronunciation: *Giang* or *Gyang*). In the *Encyclopaedia of Ethnic Groups in Thailand,* Sgaw Karen is interpreted as *"Kaliang*", meaning "human being", which is what they were originally called by the *Mon* people in Myanmar, (Rattakul & Buruspat, 1995) but the Myanmar people called the Karen *"wild cattle of the hills"* (Hayami, 2004: 36). In the north of Thailand and the Chan state of Myanmar, the Karen were called *"Yang*" or "*Kayin*" in the Myanmar language; while in western Thailand in such provinces as Petchaburi and Prachuap Khiri Khan, the Karen were sometimes called "*Kalang*".[16]

Moizo (1997) notes that the Karen settled in Thailand over 200 years ago, particularly in north-western Thailand. Recently, the Sgaw Karen have had a population greater than other Karen groups: around three-quarters of all Karen in Thailand. The Karen have a humble and straightforward lifestyle, living in villages in the forested hills zone, and practice shifting cultivation (Delang, 2003). Also, many Karen communities live in wildlife conservation areas and national parks. The Karen are scattered across various places from the north to the south of Thailand (Ratanakul, 1982). Overall, there are approximately 440,000 Karen people in Thailand (National Statistical Office, 2015).

[16] Only the Phetchaburi and Prachuap Khiri Khan provinces call the Karen *"Klang*", but the Karen call themselves *"Sgaw*" or "*Jgaw*", meaning human being.



Fig 4.1 A Karen couple in Banggloy village with traditional clothing
Photo: Montha Ajchariyakul

Traditionally, Karen men and married women wear a sarong and sleeveless shirt. The designs of shirts and sarongs are different, and they tie their sarongs in different ways (KBDDF, 2010).

4.2 A PORTRAIT OF LANDSCAPE AND SETTLMENTS

Today, Banggloy village is an official village under the Thai nation and is located in the national park, Huaymaepriang subdistrict, Kaengkrachan district, Petchaburi province. The Huaymaepriang subdistrict consists of six villages; four of these – Pusai, Nhongdam, Dan-Ngo and Huaypai – are located outside the national park, while Banggloy and Pongloug villages are in the national park. This section aims to give a clear picture of the settlements by examining the aspects of the lands and the challenges of living in the national park.

Table 4.1 Population in the Huaymaeprieng Subdistrict

Village	Name	Population	Percent	Households
1	Banggloy	542	14.20	105
2	Pongloug	423	11.10	77
3	Pusai	796	20.90	237
4	Nhongnamdam	667	17.50	213
5	Dan-Ngo	610	16.00	217
6	Huaypai	776	20.30	305
	Total	**3,814**	**100**	**1,154**

Source: Village 1 surveyed by the Karen leader in 2017. Village 2 surveyed by Maefahloung Foundation in May 2013. Villages 3, 4, 5 and 6 surveyed by Office of Civil Registration in February 2013.

Table 4.2 The Karen Population in Banggloy Village in 2017

Age	Percentage
Over 61	2.6
41-60	13.3
26-40	19
16-25	17.2
0-15	47.9

There is a high birth rate in the village because the Karen are not familiar with contraception. As a result, around 50 percent of the population is of an age below 15 years old, while the older population is low. This can give us a clue about the demand of houses in the future.



Fig 4.2 The landscape and the river of the village in August 2017

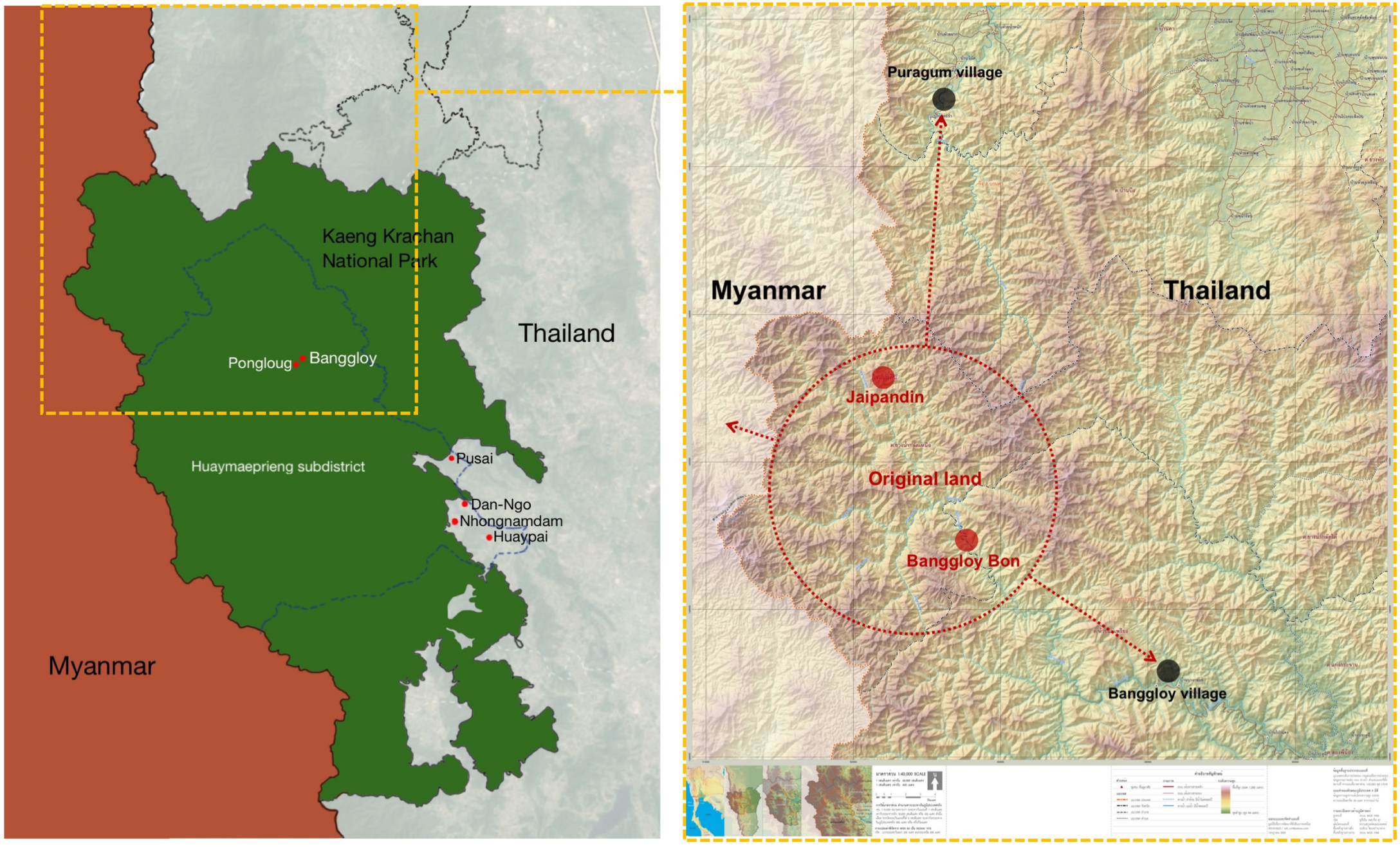


Fig 4.3 Maps show the position of the villages and the original land

Left: Position of six villages of the Huaymaeprieng subdistrict. Right: Evacuation of the Banggloy Karen between 1996 and 2011.The Karen moved to settle new dwellings in different places: the Myanmar border, Puragum and Banggloy villages. (Source: Sustainable Development Foundation (Northern Thailand), scale 1:40,000).

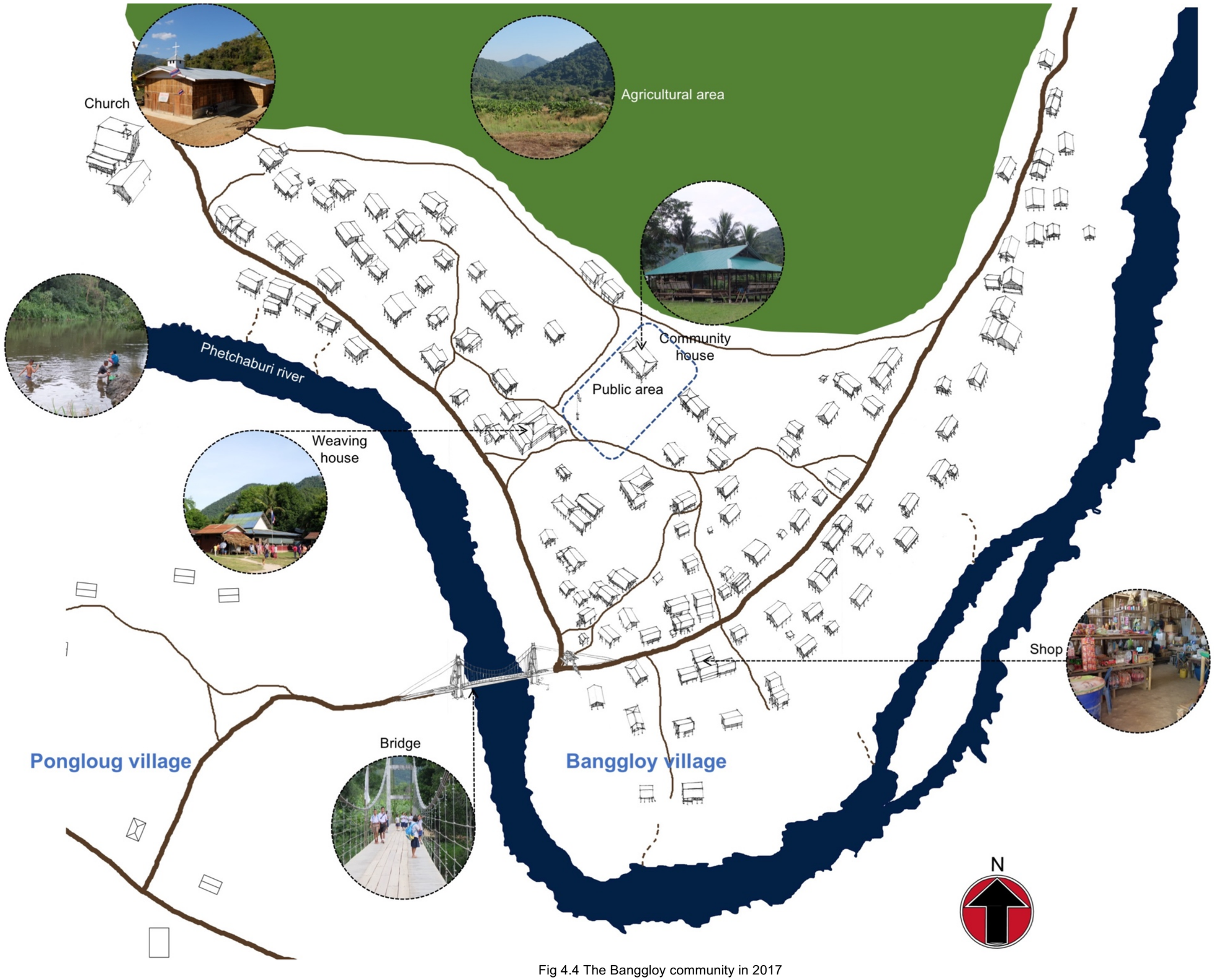


Fig 4.4 The Banggloy community in 2017

4.2.1 The Story of the original land and plentiful resources

> 22 November 2013
> "*If you need to know about Jaipandin, we have to interview the elders. I will ask him [Jorsho] to see us at Boonchoo's house*", Porlajee said.

The original land is divided into two areas: *Banggloy Bon* and *Jaipandin*. Banggloy Bon is known as a Karen village located in the north of the district near the Phetchaburi river (Fig. 4.3). The history of Banggloy is not clear in terms of official documentation, because it is located in the deep forest. The story of the village is part of the oral tradition that is passed from the generation to generation. The village's stories are kept by many people, particularly elderly Karen. They have told the same story: for example, Jorsho Kraejee tells me the story below.

> *In the past [a long time ago], when Myanmar and Thailand fought each other, the Karen living alongside the Thai–Myanmar border were forcibly evicted and killed by Myanmar. They had to flee and hide in the forest, caves and on hills. They lost their lands and homes. Many Karen died, and the rest of them survived by eating "*gloy*" (*gloy *is a kind of potato) and other vegetables in the forest. […] Another mythical story was about the Karen who was fleeing from Myanmar; he found a massive* gloy *around the size of three people's entwined arms. After he ate this* gloy*, he found that he became invisible, no one could see him, and he survived from under the eyes of Myanmar soldiers […] After the Thai–Myanmar war stopped, they started living peacefully at the head of the Banggloy and Petchaburi rivers near the Thai–Myanmar border*.
>
> Jorsho Krejee, 60 years old, 22 November 2013

This evidence was passed on from generation to generation; since that time, this caused the Karen to call those areas *"Banggloy Bon*". This phrase consists of three words: *"bang*", "*gloy*", and "*bon*". *The word "bang*" in the Thai language means "place"; some Karen said that *"bang" was* distorted from *"bung*", meaning "invisible". In scientific terminology, "*gloy*" is *Dioscorea hispida Dennst*, which is a kind of potato. Lastly, *"bon*" means "above" or "up", which follows the character of the settlement. Thus, there are two meanings of Banggloy: "place of gloy" and "invisible place".

The second area is "*Jaipandin"* in the Thai language or *"Kajueku"* in the Karen language. Both are the name of the original land; *Kajueku* means "the top of the mountain", following the geographical aspects of the landscape consisting of the high hills and cliffs. In contrast, *Jaipandin* was a name initially given by Thai people who got lost there a long time ago. They met the Karen and asked them where they were and what this place was called. But there was no name for it in the Thai language; the Thai people therefore gave it the name *Jaipandin* meaning "the heart of the land". Tongdee Chaya, a great-grandson of Paleugor, who was a legend in the original land, told a story of his great-grandfather.

> *My great-grandfather is Paleugor, a Thai person. He got married to my great-grandmother, a Karen. They told my mom that at the centre of the original land, there is a very deep hole on the top of the hill. The Karen said that when they threw a piece of rubble into the hole, they could not hear any noise of it falling on the ground. The Karen therefore calls this place "Kajueku", which means the top of the mountain.*
>
> Tongdee Chaya, 68 years old, 21 September 2016

Furthermore, Doimooyaw Pugad and Somsook Gudjid explain the riches of the resources on the original land.

> *[…] We planted sour melons, we achieved a very big size, around five kilograms, on the original land, but here when we planted, we got nothing […]*
>
> Doimooyaw Pugad, 40 years old, 29 December 2016

> *[…] When I was at Banggloy Bon, my trees were huge. I had never watered the trees. Never watered! I had also never watered my rice farm. My crops, they grew very well. We farmed 2-3 ha, we had never watered the farm […] After weeding, we made rest or travelled somewhere. This is the truth. Today, here ... after time off from working, we have to water the farm suddenly […] I am not depressed, but it has changed […]*
>
> Somsook Gudjid, 6 September 2016

The statements above indicate the prosperous resources of the original land where the Karen lived for a long time and would like to live again. In general, the Karen inhabit the temperate forest and hill zones. Traditionally, their crops and other livelihood activities are associated with the climatic patterns. They have grown different types of crops such as cereals, vegetables and rice in the same plot of land for generations for the promotion of biodiversity. The growing awareness of using land to find solutions based on traditional knowledge is challenging, because they lack access to decision-making about the development plan of the national park.

Tongdee and Jua, who are elderly Karen, moved to this land in 1996. They told some of their stories and experience to us.

> "*I was born at Lumpachi conservation forest, Ratchaburi province. Those areas are linked to the Jaipandin and Banggloy Bon [original land]. My father was born at Dokmaijan Hill, which is located at the Kaeng Krachan Dam. In the past, it was no dam. We lived in those areas until the dam was built, then we had to move. Some Thai people came to close off our land; we had to move to the jungle and gradually moved to the deep forest. For example, when the dam project was built 50 years ago, the Karen were unable to avoid moving out of those areas*", Jua said.
> "*How did they live in the past?"* I asked*. "We have relatives who live in Myanmar near to the border. In the past, we could walk freely across the Thai–Myanmar border because it was part of the same forest area. Now my brother and sister live at the Myanmar border*", Tongdee said.
>
> Jua Jeebong and Tongdee Chaya, August 2016

Next month, I walked to see Tongdee at his field. Actually, I just intended to see how they organised the field. We sat in a small temporary building. We talked about his farm, but he also told me about the location of the original land and the way of life there because he needed to compare the past and the present.

"*The original land is divided into two areas or two villages: Jaipandin and Banggloy Bon villages. They are adjacent to one another, but their centres are around a one-day walk apart*", Tongdee said.

"*Can I walk to the original land?*" I asked. *"Yes, the way to the original land is not too arduous, but if it rains, the route is terrible because of many leeches and insects",* Tongdee said.

"*Can you go alone?*" I asked. *"Yes, easily! If we need to go there, we have to prepare rice, pots, a knife and a fishing rod. Then, other foods can be found there, such as fish and vegetables. There are small routes that we often walk past, so we do not get lost. If we walk quickly, we may take around two days. In contrast, if we walk slowly, it takes more than two days. Also, in the past we did not need to bring cooking equipment. We could borrow equipment from people who lived there and get foods in their houses. But today, nobody lives there*", he said.

"*The Karen who live by the Myanmar border, they often cross the border to this village [Banggloy village] to buy salt and tobacco, because it is easier than going to the town in Myanmar and it is closer. All of them used to live on the original land, but they had to evacuate to Myanmar because of the evacuation operation by the Thai military. The Karen around the border, both Thai and Myanmar, are relatives, they speak the same language, they cannot speak the Thai and Myanmar languages*", Tongdee added.

"Why do they have Thai money?" I asked. *"They spent money once or twice a year; the money came from selling dry chillies. When they walked down to the village [Banggloy village], they usually brought something to sell in the village, particularly dry chillies and honey",* Tongdee said.

"*If the park officials allowed you to return to the original land, would you want to return?*" I asked.

"I am too old to live there [the original land], I choose to live here, but the park officials should allocate enough lands for cultivating and building houses. Then, if my descendants need to return, it is their right, they can. My mother died here; I will live here. (He also pointed out the place where his mother was cremated.) My mother died in 1996 when we were evacuated to this village; at that time, my mother was 101 years old, while my father died on the original land around 1976", Tongdee said.

Tongdee Chaya, 20 September 2016



Fig 4.5 Tongdee in a temporary building

Tongdee built a temporary building in his field. It is a place where he takes a rest and looks after the rice field. We sat and talked about his life before and after evacuation.

In July 2017, during mapping of the original land (see Fig. 3.34), we discussed the original land to find out more.

> In the past, they would see relatives or friends only when they had a ceremony around once a year. They lived in a kind of family cluster or group, such as parents and sons. When their sons or daughters get married, they build a new house located near to the parents' house; in some cases, they move to another piece of land. Plu said that a new house may be a one-day walk from the parents' house. The Karen usually move their houses to follow their fields in the forest. In some cases, after getting married, they also find new areas for farming and living. However, before 1996, most Karen moved to live together alongside the Banggloy river where there are substantial areas for farming. Therefore, the original land is divided into Banggloy Bon and Jaipandin. To reach Banggloy Bon, the Karen take around a one-day walk, while Jaipandin is about a three-day walk.
> *"In 2011, I was asked to be a mediator to negotiate with the indigenous Karen on the original land to move to the present land, but it was not successful because national park officials could not confirm that they would provide them with land. Consequently, they moved over the border. At present, they may be living by the Myanmar border. I cannot confirm where they are living now",* Plu said.
> On 10 July 2017, a Karen was here who came from Banggloy Bon to see relatives in the village. He also came to find where they were and where they used to live. He said that today, few households are living in Banggloy Bon. *"We do not have land, and we have to live there. We know how to hide the house in the forest and how to escape the officials",* he said.
>
> Field notes, July 2017

As they said, the Karen from the original land separated into four groups. The first group moved to Myanmar. The second group moved to Puragum village in Ratchaburi province. The third group moved to Banggloy village. The last group still remain in the forest on the original land by hiding in the deep forest.

Some conversations between Tongdee, Jua and me and a group discussion indicated their living environment on the original land, including the links between the Karen on either side of the border. We cannot ignore this evidence that they are parts of the same group of Karen. However, they are separated by policies and border security. The Thai state does not care about minority ethnic groups living alongside the border if they are not Thai people or born in the area of the Thai border. They will be forced to move out of the Thai border area. Finally, it is clear that many factors contribute to the Karen having to evacuate to an allocated piece of land. It is not only relocation policy, but includes other factors such as the health service, education for children and relatives' relationships.

4.2.2 The challenges of an allocated piece of land

The current settlement has been considered to be the setting for new life and dwellings for the Karen. The Karen do not have right to select the land and settle the dwellings themselves; in other words, the manner of the settlement is dependent on the national park. However, the Karen house cannot be seen in isolation from the settlement; it is included as a part of the total social and spatial systems. The understanding of the extent of the settlement pattern is essential to interpret the form of living. The impact of the change in the natural environment and built environment relates to socio-cultural conditions and political concerns.

The problems can be categorised into three aspects. The first is livelihood and well-being. The weather and climatic pattern have become more unpredictable. It is becoming hotter and colder, and the rainy season has become erratic, with declining soil moisture and ultimately a reduction in crop yield. Additionally, the people have to deal with new species of insects in the fields that cause destruction of many crops. Limited water sources have created a difficult farming situation, leading to rice failures and hardship. The second aspect is local knowledge. Some parts of the planting and harvesting seasons, associated with certain cultural ceremonies and traditions, have been lost or rarely practised. This has challenged people's abilities, knowledge and practice to cope with the changes. Also, the loss of traditional land use systems has contributed to unsustainable livelihoods, insecurity of food and lack of biodiversity conservation. The last aspect is limited access to resources. The Karen have minimal opportunity to obtain access to natural resources due to national park regulations. In the same vein, they have changed strategies for gathering foods and hunting animals. Pongsak Tonnamped reflects this below.

> *[…] We hunted, it is true. We hunted for eating, not for selling. So, we hunted an animal; we shared it with friends and relatives. This is our way of life. Furthermore, if one family carried out rotating cultivation, they also shared the rice with others who did not have enough rice to consume within the household […] we need to return to the original land and live as we did in the past.*
>
> Pongsak Tonnamped, 26 years old, 29 December 2016

Comparing the original land and the present land, the settlement of community is completely different. On the original land, people lived within groups of relatives and families. Each group consisted of around three to six houses. Some groups of houses were far away, about a half day's walk. These groups of houses were scattered in the forest. At present, the people have no choice; they have to live in an allocated area as a group in a village.

As mentioned, one of the remarkable features of the Karen is an agricultural community that people in the village hold in common interest, which strongly influences house forms. One of the themes of settlement is always concerned with

people building a sense of community that differentiates itself from the original community. Traditionally, the Karen people have correlated with their livelihoods, farming, forest products and rotating cultivation on the hillside. During the fieldwork between 2013 and 2017, we found that the rice production failed to meet the needs of the Karen because of soil and water problems and limitations of cultivation space. The strength of traditional land use systems is the diversity of local crops and practices. This means that traditional cultivation plays an essential role in producing food security in the Karen village because a high number of irrigated species are grown in traditional farming. In terms of the role of gender, the relationship between land use and the male Karen in the farms did not change, because of the cultural ideology of the Karen and region and ritual activities in which the male Karen are dominant as managers of land.

In contrast, in 2016, only two households were cultivating rice on the low-lying land by employing a wet-rice method. Although wet-rice cultivation is less dependent on rainfall in the rainy season, they usually pump water from the ponds dug by the Pid Tong Langpra Foundation (PTLF) to store water to plant crops. Currently, most villagers' fields grow bananas and limes; the banana price is dependent on the market in the town. Most of the agricultural land is on slopes with poor soil, causing some Karen to give up due to their land problems. They ignore the land and let it become overgrown with weeds, while some Karen farmed stealthily in the forest, which is illegal. If the national park officials knew about this, they might be arrested.

The government claims that rotating cultivation acts as a driver of deforestation and contributes to carbon emission. However, a serious problem was caused by stopping rotating cultivation, leading to many families not being self-sufficient in rice. The traditional land use lay in the diversity of crops; in contrast, present land use emphasises limited crop species. It can be seen that individual households depend heavily on growing bananas and limes and their earnings from wage labour outside the village. Furthermore, traditional wisdom and agro-biodiversity are disappearing somewhat, challenging people's future way of life.



2013



2016

Fig 4.6 Comparison of agricultural areas between 2013 and 2016

These agricultural areas are located to the north of the village. A great proportion of farmland is on the high ground, and the low-lying ground has a smaller proportion. The farming method was suggested by the PTLF. The strategy of the PTLF concept follows that of the sufficiency economy of King Bhumibol's theory, including sustainability, moderation and broad-based development. The land has changed from the initial development project of the PTLF, who proposed the idea of farming rice terraces. However, this turned out to be unsuccessful due to soil and water problems. After that, the PTLF proposed an alternative solution by encouraging the Karen to grow bananas and limes instead of rice.

4.2.3 The river: the backbone of the village

> My routine in the village: 7 am. I walk down to the river to brush my teeth, take a bath, and wash clothes. Nearby, children are swimming, bathing, playing and laughing before going to school.
> 5 pm: it is my bathing time before the sun sets. I go swimming and washing clothes in the river. The Karen are also washing clothes and fishing. Children are playing and swimming. They jump from the tree into the river. Children in the river laugh.
> In summer, we usually see the Karen catching fish on rafts on the river because the river is shallow and transparent. We can see fish very clearly. In the rainy season, the water rises and is not clear. However, we still come to take a bath in the river as usual even though it seems dangerous for children.

In the village, the Karen use the river[17] as a place for bathing, drinking water and for food resources. The water from the river is also pumped up for watering plants and consuming within the village. Undoubtedly, it plays a central role in the villages, providing fish, fresh water, transportation and many other essential functions. The Karen respect the river, and they believe that it has the spirit which will give them peace. If someone defecates or urinates into the river, the river's spirit will punish them with illness. In contrast, if they take care of the river, the river will protect them with peace. On the other hand, the urban people blame the Karen as river polluters. Plu Jeebong explains this point below.

> *People [in the town] looked us as people who created river pollution. In fact, the people who have destroyed the river are those who use the river without manners. […] Also, women menstruating are not allowed across the river and down the river, because that will make the river unclean. We believe this […] The officials also blame the Karen as crop rotators who destroy the forest and the water source.*
>
> Plu Jeebong, 40 years old, 26 December 2015

During the rainy season, the Karen look forward to rain between June and September. If it rains only some of the time, the Karen farmers are likely to be affected by this drought. Some Karen have stopped planting because there is no water to germinate the seeds. Meanwhile, in the rainy season, the water in the river always rises and becomes turbid after rain, leading people to stop bathing in the river until the water is clear, spending time around one or two days after the rain stops. On the other hand, some Karen said the rising water gave them benefits; for example, they said when they cut bamboo and took it down to the village, the high level of the river helped bamboo rafts move easier than when there was less water in the river.

[17] The Phetchaburi river's source is in the Tenasserim Hills and the national park; it flows through the centre of Phetchaburi city into the Bay of Bangkok in Baan Laem district.



Fig 4.7 The everyday life of the Karen at the river

The Karen usually come to use the river bank all the time, particularly in the mornings and evenings for bathing and washing clothes. This place was also my bathing area when I was in the village.



Fig 4.8 The water storage area of the village

The water storage area is located to the north of the village and consists of eight large plastic tanks. Generally, water is pumped from the river to be stored in the tanks. Water is released through plastic pipes twice a week to all households. Every household has to pay around £1 monthly to buy petrol for the water pump.



To obtain drinking water, collecting rainwater from the sky seems immensely sensible in the rural areas. A roof catchment with container storage is a practical way to collect rainwater because it is easy and inexpensive. Additionally, a roof collection system can address both water quality and water quantity issues. The advantage of utilising rainwater to supply the household is the easy maintenance of water security and quality.

Fig 4.9 People use galvanised metal sheets to collect rainwater

Fishing not only provides a source of food but also help to clarify cultural identity. It demonstrates traditional activity and techniques concerning fish behaviour and habits. It is also a major source of food for the Karen that they can hunt in the national park today. This is also reflected in the places where the Karen prefer to settle. Undeniably, when we mapped the original land, we found that they always settled in the dwellings near the creeks and the river. This shows the relationship between the Karen and the settlement as a place of sources of food and water.

The settlement near to the river affects house building as the source of the building process. Rapoport (1969) states that the form of the settlement affects the way of life and the house. The settlement pattern can also affect attitudes to innovation; for example, planning, fishing or hunting, even collecting materials. In some sense, house, settlement and landscape are the products of the cultural system (Rapoport, 1969). Therefore, the Karen house is a part of the natural system. It reflects the harmony of the Karen and nature. The character of nature and the site is an essential aspect of rebuilding processes or modifications.



Catching fish is one of the most straightforward and most reliable ways of collecting food from the forest to supplement the family food budget. Traditionally, the technique is not only fishing by rod; there are also many fishing techniques such as harpoons, throw nets and even bamboo trap baskets. The fishing equipment and supplies are inexpensive or free and are not particularly complicated. For instance, a bamboo fishing rod is a simple stick attached to a line and a hook, however, it is limited in the size of fish it can catch. Some of the younger generation of Karen therefore buy a contemporary fishing rod made from fibreglass from the town that can catch bigger fish over wider areas.



The Karen learn how to fish from childhood by starting to learn from their parents. They learn by paying attention to details like baits and lures, techniques, locations and underwater geography. They also learn to usenew techniques from a lot of practice casting, feeling strikes, setting the hook and landing fish. As for children, they go fishing together on the weekend. They talk, play, laugh, enjoy each other and have a good time. Sometimes they catch nothing, but they have fun and experiences. Some families spend that time with children and enjoy fishing with family members. Catching fish is food and fun, an inexpensive method of putting food on the table. It is an essential skill that every Karen family is looking to master to increase their self-sufficiency.



I met Gola at Supasa Chaya's house; he showed me fish he caught last night. *"What did you use as bait?"* I asked.
"I used earthworms and figs", Gola responded.
Vichai further said if they fished at the head of the river, they usually used figs, while here the river was different because fish knew what they should not eat.
"Many fish live at the head of the river rather than the area near to the village because fish do not live in a place where many people live", Gola said. Additionally, fishing at night in the rainy season is popular because the high water level leads to more fish.

Gola Vena, 39 years old.
Vichai Wormor, 32 years old, 20 August 2016

Fig 4.10 Fishing is a usual activity of people to obtain food from the river

4.2.4 Public space: space for all

The central area of the village is designed to be the public space to support various community activities of daily life. For example, In the morning, it is used as the place for weavers to sing the Thai national anthem (see Fig. 4.20). In the afternoon, it becomes a playground and football field for children. It is sometimes a place for animals to graze, especially in the rainy season, due to the large amount of grass and insects. Moreover, it is the meeting place for social and public meetings because it is easy for outsiders to recognise as the centre of the village. This community public space is more than a behavioural space; it is also a medium, milieu or context in which Karen relationships are embedded. It can be understood as the organisation of space and time being expressed physically as the contemporary cultural landscape. Furthermore, the street, riverfront and community house are also a part of the settlement of public space. There is no doubt that the public space conditions are associated with the Karen's activities and the natural environment. Therefore, the public area is not only the place for various activities, but also a place to modify social patterns.



Fig 4.11 The public space
As can be seen in my painting, the public space is adapted to act as football and volleyball fields for children.

4.2.5 Housing area and vegetable gardens

As mentioned earlier, the national park provided plots of lands for 57 households in 1996. These were marked and recorded by using Geographic Information System (GIS) to settle the Karen on the allocated land. The Karen therefore cannot increase the size and quantity of their land due to national park policy. In 2017, the number of households rose to more than double those of 1996, but the lands remain the same. The primary solution of the Karen is to share the land with relatives and family members to build houses and to plant crops. Thus, undoubtedly, the group of houses in each area consists of a kinship group. Furthermore, survival on the limited amount of land requires self-help methods as far as possible, such as generating extra income from any jobs they can do, or growing vegetables around the houses. In the village, there may be limited choices to make a living. To handle the problems, vegetable gardens are a primary choice to cultivate daily foods. They are around the house, where people can plant throughout the year to meet family requirements.

Regarding the vegetable garden, Karen diets have been influenced by traditional culture. Generally, these diets have low fat content and are high in fibre with plenty of vegetables. Rice and vegetables are consumed daily, with fish often being the main protein. The traditional way of life, based on agriculture, indicates that vegetable consumption is common in people's daily food. The concept of producing foods on the limited amount of land is connected with family economics to access proper food; often it forces them to reduce the diversity of food.

Additionally, extra income for some households can come from selling of excess products to neighbours. They grow various vegetables such as pumpkins, cucumbers, chillies, aubergines, etc., but not rice. Although the amount of water available is not enough to farm, these vegetables still survive because they are short-term crops. There is even diversity in the range of available vegetables in the region. However, the relationship between the house and the vegetable garden is important, but it barely provides produce for the family, depending on the quality of land and the amount of water, which are still the primary concerns in the village.



Fig 4.12 The vegetable garden of Thijo's house

Growing one's own food is a common activity that the Karen usually undertake to survive. Thijo uses the blue net to protect the plants from animals, particularly chickens, that might damage them.

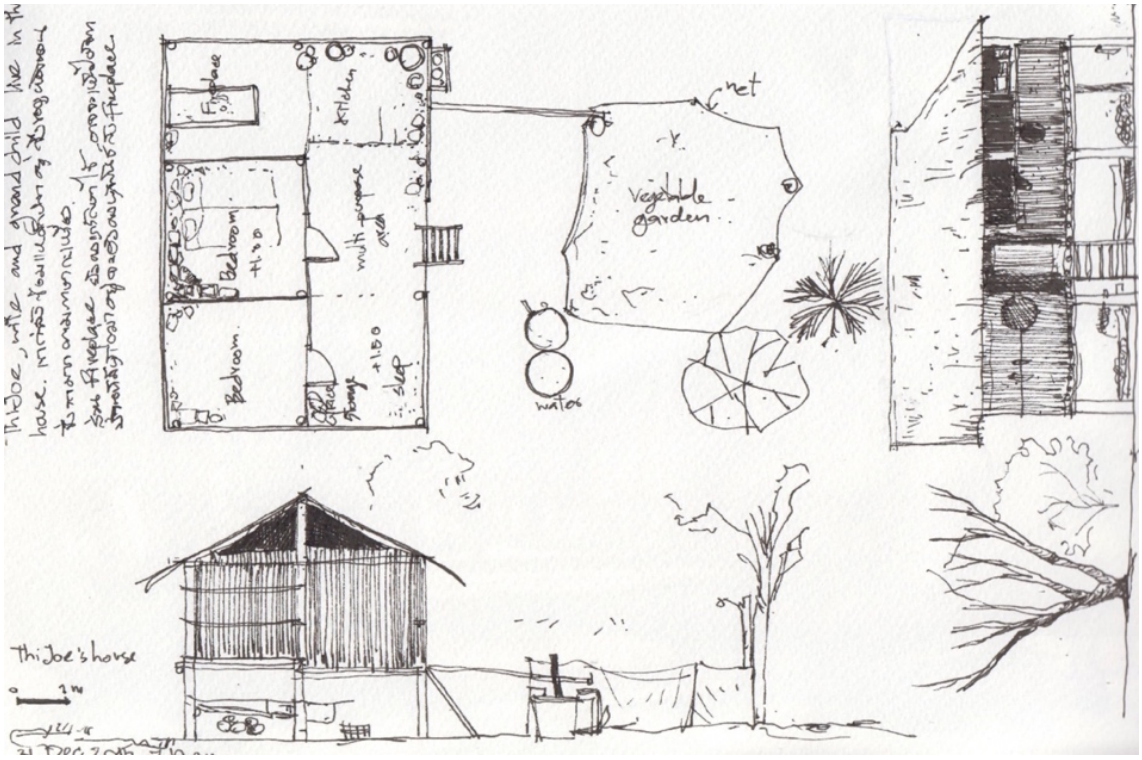


Fig 4.13 Vegetable garden of Thijo's house

4.2.6 Twelve months: traditional activities

The Karen society is an agricultural one that cultivates and harvests crops and other products to sustain life. This is the main source of food, which has dominated their lifestyle. This part therefore aims to discuss the traditional activities that the Karen commonly carry out when they farm all year around.

Table 4.3 Karen Activities Each Month

Month	Name of Karen Months		Activities
1	Tali	January	Selecting areas for farming
2	Teeko	February	Weeding, cutting trees and drying fields
3	Sokoa	March	Making fire line, burning weeds and clearing the area
4	Laklee	April	Starting to plant crops (except rice)
5	Diya	May	Weeding
6	Lanui	June	Blessing rice ceremony before cultivating rice, and cultivation
7	Lakao	July	Taking care of farm ritual
8	Laku	August	Spiritual well-being ritual Taking care of farm
9	Chimeu	September	Preparing area for cultivating rice
10	Chicha	October	Harvesting rice ritual Harvesting rice
11	Lanor	November	Eating rice ceremony
12	Lapleu	December	Resting at home or visiting neighbours or relatives in different areas

The Karen's activities are based on the lunar calendar relying on the cycle of the moon's phases. This is also similar to the traditional Thai calendar and that of some other eastern countries.

Month 1 is the beginning of traditional farming; the Karen will carry out the greeting rite or blessing rite to the spirit of the land by praying to have a good crop. If they dream of something bad at night, they will not farm on that land. Month 2 is occupied with weeding, cutting the trees down and drying out the land. Month 3 is concerned with making a fire line and burning the weeds and trees. In Month 4, they start planting vegetables, dividing them into three periods: short, medium and long periods of vegetables. The fifth month is taken up with weeding, and in the sixth the Karen will carry out the rice blessing ceremony to tell the spirit that they hope for good cultivation. This phenomenon is explained in the statement below:

> *[…] We will drop seven rice grains into seven small holes. Then, if these rice grains grow well, this means that it is good harvesting and products. This rite is called "*Tubeu*". Then, we start cultivating the rice until harvest. If we have a remaining scrap of grain rice, we will throw it into the field and ask the spirit's blessing to protect the field from wild animals such as monkeys and boars. […]*
>
> Group discussion, 2 September 2017

Month 7 is occupied by taking care of the rice by carrying out the rite called "*Tamorkoe*". This ritual uses rice bundles, chicken, betel and candles to offer to the spirit. The Karen will pray to the spirit to protect the farm. Next, they will carry out the

spiritual well-being rite in Month 8, while they also continue to take care of the farm. Month 9 is dedicated to preparing the area for threshing and storing rice. Then, the Karen will harvest the rice in Month 10. Before harvesting, they will harvest seven bundles of rice by selecting the best rice in order to save it for cultivation in the next season. They will carry out the rice-eating ceremony after harvesting for blessing and giving thanks to the spirit. Month 12 is used to rest or meet relatives or friends in other villages. This evidence confirms that the planting and harvesting seasons are associated with cultural ceremonies and traditions. Today, this challenges the cultural identity and traditional knowledge.

The cyclical features of rituals refer to repetitive and recurring activities and meanings, with cycles potentially recurring annually (Werner *et al.,* 1985). All of these results and activities indicate the association between the Karen and the natural environment. This also shows the collective identity of how they live alongside the natural environment. To begin to understand the Karen, understanding something about their traditional daily activities or annual rituals help to pick up the rhythm of the Karen life. The 12-month traditional activities signify that their specific culture has collective symbolic and essential aspects. This is more than just the activities of individual people, their characteristics and performances; they embody the cultural myth that expresses beliefs and values.



In July, Pairach starts cultivating the rice by using traditional techniques. He uses a shovel with a long handle to dig the soil. His daughter drops paddy rice into the holes.





In September, he comes to check the rice and other vegetables. He also collects some short-term vegetables such as maize and cucumbers to bring home. As mentioned, the traditional farm includes many kinds of vegetables which people can consume all year around. Traditional farming is an ideal solution for agriculture in the humid tropics.



In December, his family and relatives come together to harvest the product. They will take the paddy rice to the house and then carry out the first rice ceremony.

Fig 4.14 A traditional farming method

I met Pairach quite often because he is Porlajee's brother. I was sleeping in his house when I carried out the fieldwork. He speaks a little bit of the Thai language. In July 2017, he invited me to visit his field because he was going to start cultivating a rice hill. This is a traditional farming method that is rarely used in the village.

4.2.7 Christianity and the church



Fig 4.15 The church

It is difficult to discover when some of the Banggloy village Karen became Christians. As mentioned, the majority of the Banggloy Karen are Buddhist, and a small minority are Christians. However, both arrived after traditional beliefs. Then, traditional beliefs merge into Buddhism and Christianity. Therefore, in terms of spiritual practice, all Karen do the same, but there are differences in their religious practices.

There is a Karen Christian teacher and a church located on the north side of the village. This area is divided into the teaching area, the house of the Christian teacher, and the church. All buildings are built from bamboo, except that the church floor is concrete. The roofs are galvanised metal sheets. In terms of Christian practice, the Karen Christian teacher will teach people the religious beliefs and practices. Christian teaching merges into the traditional concepts. In other words, Christian doctrine and practice do not rule out traditional rituals such as the belief in 37 spirits. On Sundays, people will pray and sing songs in the Karen language together in the church, led by the Christian teacher. The Bible stories are told in the Karen language. On special days, such as Christmas, people will stop working and come to attend the ceremonies. They always wear traditional costumes when they come to pray. In terms of the community layout, the Karen Christians have settled near the church as a small group.

4.2.8 Funeral ceremonies

Traditionally, when someone in the village dies, neighbours will stop working and come to assist with the funeral ceremony. Karen women help to prepare foods to serve to people who come to pay respect to the deceased, while men assist in preparing the ceremony. Currently, the funeral ceremony is still performed following ancient tradition. It is usually performed in the house of the deceased. It is carried out in the front of the house or the multifunctional space, in order that neighbours can comfortably come to pay respects. The funeral ceremony is performed for between one and seven days, depending on the family of the deceased.

However, some elements have been adapted and changed according to the current environment; for example, they employ a coffin to hold the dead body, while in the past, they used a mat for wrapping it. Today, they still perform the cremation ceremony in the forest. In some cases, they may carry out the funeral ceremony at the Thai temple in the town. Additionally, they still believe that after a person dies, his or her spirit remains in the village for a while. Therefore, people will stay at home after sunset on the day of the ceremony, because the spirit of the deceased might make them fall ill, particularly the children.

In September 2017, I had an opportunity to attend the funeral of Jorsaewpor. The funeral ceremony was held at his house in the village. His sleeping area became the position to place his coffin. All spaces in the house were changed from personal to public for visitors. The private space also became a sacred space. The movement of visitors' bodies created a mental space representing sadness. The smell of incense and candles created a sensation of peace, silence and worship. These senses in the house were produced only by the phenomenon of death; in turn, under the house and around the house, the Karen were cooking, drinking, talking, eating and laughing, making it seem like a community meeting ceremony. This may confirm that element of space that are changed leads to people feeling changed. In other words, the funeral ritual is a factor that changes the private space into a temporary social space and centre of the community. Doimooyaw Pugad further explains the funeral of Jorsaewpor.

> *In the past, we did not use a coffin; we used cloth or a mat to wrap the body, then we used straw to wrap around the body as a second layer to make [the bundle] stronger. Then, [it was] strapped to wooden poles together again, and then it was buried […]. In the past, in the forest, we only cremated [bodies], but Jorsaewpor needed to be buried […]. In the past, we kept the body three days. Actually, it depended on the family whether they wanted to bury or cremate. In some families, they buried [the body] for a year, and then dug the grave and brought the dead to be cremated. […] There were various practices, depending on the household members.*
>
> Doimooyaw Pugad, 42 years old, 7 September 2017

The funeral ceremony connects the villagers to each other, particularly neighbours, relatives and kinship groups. The family hopes to help the soul of corpse peacefully to the afterlife or even to be reincarnated. Burial is the first step for them to send the dead to the afterlife. Death thus becomes an important element reflecting the symbols of tradition.

As such, despite the changes of the modern world, the Karen still practice and keep walking along the track of the traditional way of life. This shows that Karen houses are associated with people's lives from the time they were born until they die. The spaces are adapted to support various ceremonies and activities to sustain their culture.

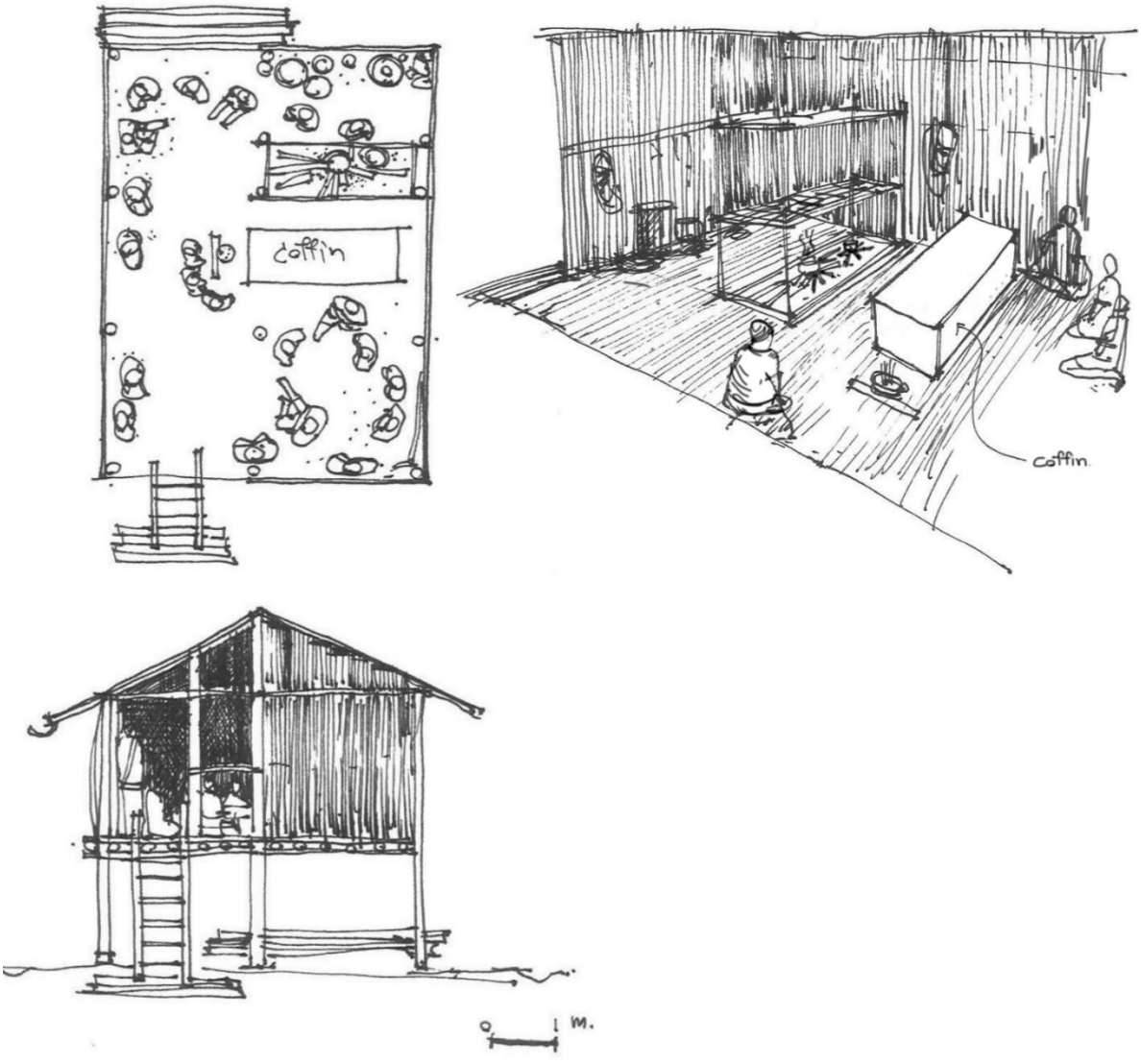


Fig 4.16 Jorsaewpor's house and funeral ritual
The coffin is in the area where the dead slept. The relatives and neighbours will come to pay their respects to the dead in the house. Some of them stay in the house to talk to the people arranging the funeral. They also make homemade liqueur to drink while talking.



Fig 4.17 The burial of Jorsaewpor

The method of burial shows the relationship between body and soul, and life and afterlife. The family members will prepare clothing and necessary items and put them in the coffin. Then, they take the body to the cemetery forest where the family members have selected the place for burial. They believe that everyone who attends the burial rite must come to dig the soil to bury the body. Before laying the coffin to rest, they will make the ground level by putting poles of wood on the ground. After placing the coffin in the grave, they will open the cover of the coffin to say goodbye the dead person, and then they will pay their respects to the deceased by sacrificing food, liqueur, water and rice. Next, they will cover the coffin with bamboo, and then re-cover the grave with soil. Lastly, they will all worship before leaving.

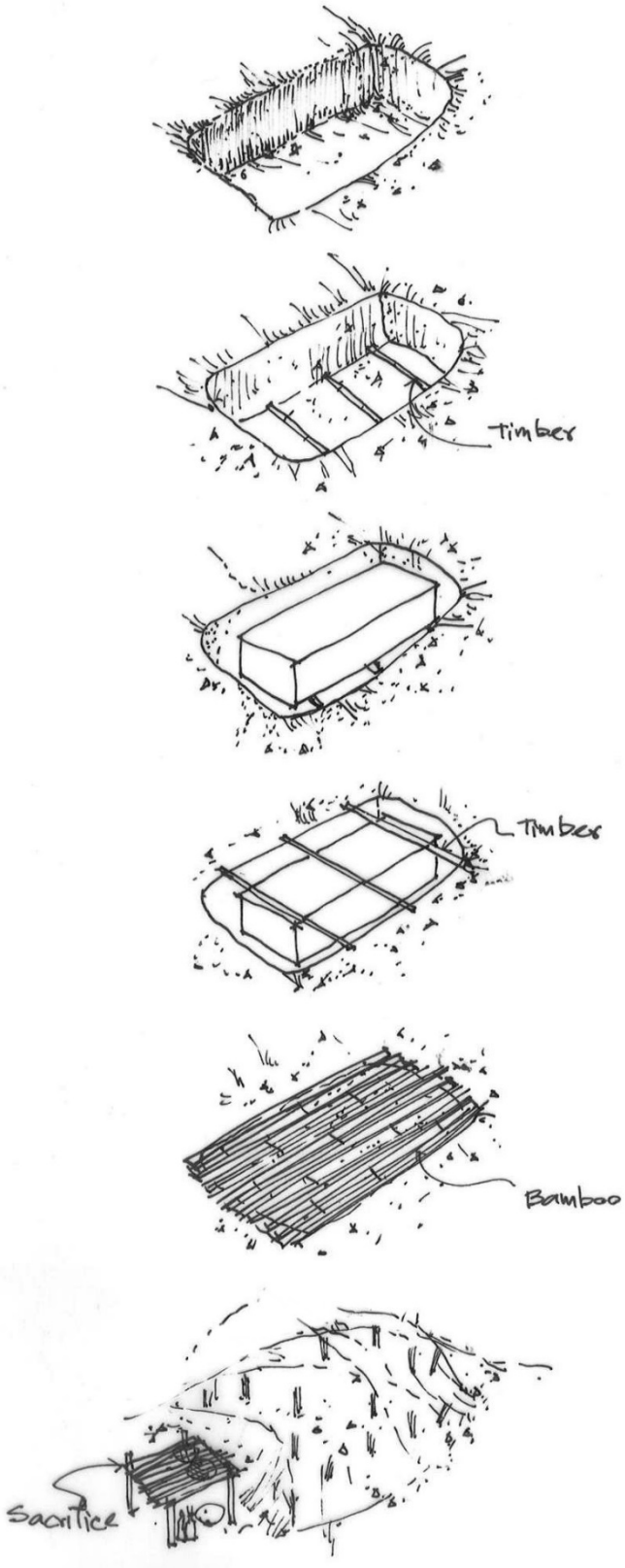


Fig 4.18 The burial process



Fig 4.19 After burial rite at house

After burial ritual, the people who attended the ritual, they must bring a prickly branch from the *"Metali"* tree (in the Karen language) or any a branch of the tree that covers in prickles, to put it down at the sleeping area of the dead. It is paying respect for the dead and protecting attenders from the evil spirit. Before getting on the house, a household member will clean attender's feet by water and a branch of the tree.

4.3 INDIGENOUS RIGHTS AND POLITICAL CONTEXTS

> I returned to the village for fieldwork. At Tongdee Chaya's house, he told me about the depressing story of his brother in 2011.
> *"My big brother's house and a barn were burnt, he had to eat bamboo shoots instead of rice. He was moved to here, but he could not live because [he had] no land. In the end, he decided to move to the Myanmar border. When the park officials burnt his house, his properties were most damaged compared with the others. The barn, which had a size of 3.5 metres in width, was also burnt, so his family moved to the Myanmar border. Nowadays, he is probably almost 90 years old and he does not have Thai citizenship",* Tongdee said.
>
> Tongdee Chaya, 70 years old, 19 August 2017

The United Nations made a declaration with 46 articles on the rights of indigenous peoples, which were adopted by General Assembly Resolution 61/295 in September 2007 (UN General Assembly, 2007). These articles are grouped into the right to self-determination, the right to participate in decision-making, rights to lands, territories and resources and rights to culture. This affirms that indigenous peoples should be equal to all other peoples to promote and protect their rights. As seen in Tongdee's statement, the issue of Karen rights in the Thai context rarely follows the UN Declaration; in turn, they are often applied incorrectly by the state. Therefore, my aim in this part is to examine the rights of the Karen in Thai political contexts and under policies based on the UN Declaration, which is recognised as a key contributor.

4.3.1 The conflict and development

In 1896, the Royal Forest Department (RFD) was established and in 1936 was given full jurisdiction over the nation's forests (Tungittiplakorn, 2008). The government aimed to preserve national parks and forests, and increase the forested area. However, from the end of World War II until the 1980s, the Thai government also encouraged lowland farmers and agribusinesses to expand in the highlands, in the name of national development (Delang, 2002). As a result, rapid deforestation and logging exhausted much of Thailand's forest. In the 1980s, the Thai government launched its national conservation policy (Delang, 2005; McKinnon, 1997). However, comparing the forested areas of Thailand between 2008 and 2013, the overall area decreased (RFD, 2015). Unfortunately, the problems of deforestation are often blamed on the Karen and other hill tribes who live in the forests, causing conflict between them and conservationists and the state in the national parks (Delang, 2003). Increasing pressure from the national park forced the Karen in Banggloy village to end their cultivation–fallow cycle in the forest as it is regarded as illegal. They have plots of land in allocated areas only, with an average landholding of 0.5 ha per household.[18]

[18] Some households have no land to farm because park officials provided land on one occasion only (in 1996). The number of Karen in the village has increased continuously from 57 households in 1996 to 106 households in 2017, whereas the allocation of lands has remained the same.

4.3.2 The problems facing the Karen in Thailand

The RFD officials have blamed ethnic minorities as the 'rotating cultivators' for the rapid loss of forests. This may be because the Karen are the largest ethnic minority group; thus the image of the Karen becomes one of 'forest destroyers'. Santasombat (2004), nonetheless, noted that in the past the image of the Karen was as forest guardians and conservationists, while Delang (2003) noted that the images of the Karen within the environmental discourse were as "wild people" *(chao pa)* or as "hill tribes" *(chao khao)* and as "nature conservationists". The state still has problems with the Karen's circumstances in the highland settlement, seeing them as a subculture with lower status than people in mainstream culture, even as having a low social condition, worthless, meaningless or even uncivilised. Those problems may be summarised into five significant points (Kanchanapan, 2004).

Firstly, the problem of the negative image of the Karen as "tribal" held by Thai citizens, growing and trading opium, as well as causing deforestation and being a threat to border security. These images do not correspond the facts of Karen life.

Secondly, the problem of resources management and loss of the right to land, resulting from the national development policy to modernise and promote commercial mono-agriculture. Furthermore, the Karen lack the opportunities and the rights to participate in the planning of resources management that directly affects their lives.

Thirdly, the problem of legal status and citizenship. The majority of Karen in Thailand have a problem with nationality, because the nationality verification process has a gap between the action of state officials and the Karen, partly due to the remoteness of the Karen communities.

Fourthly, the loss of ethnic identity, cultural potential and Karen wisdom, with the creation of "*Thainess*" through the education system, where the Karen culture is not accepted. Therefore, the Karen are losing their ethnic identity in some places. For the Banggloy Karen, some of their activities are integrated into Thai national culture such as singing the national anthem (Fig. 4.20).

Finally, the problem of Karen education management. The state lacks an understanding of the Karen way of life. The Karen are hardly participating in their educational development and have to go to the town to study, and some of them are cut off from Karen community life.



Fig 4.20 Singing the national anthem at 8 am

At 8 o'clock every day, the weavers from the weaving house have to stand in line to sing the Thai national anthem. For Thai people, the daily practice is to stand still and respect the national flag twice a day. Thai students must stand in front of the raised flag and sing the national anthem at 8 am every day. In addition, before the national anthem is played on the radio and TV at 8 am and 6 pm every day, one usually hears an announcement: "Please stand and sing the national anthem to show our pride in our national independence and our Thai ancestors' sacrifices". This reflects the nationalist ideal. Regarding the Karen weavers, they obtain weaving jobs from the Queen's project managed by the military. Thus, the military asks them to sing the Thai national anthem every morning. This appears to be an attempt to integrate the Karen into Thai national culture. Now they become involved in Thai culture through the traditional anthem, but I am not sure whether they understand its meaning.

4.3.3 Land and forest rights

A number of articles in the UN Declaration mention rights to land, territories and resources.

> *1. Indigenous peoples have the right to the lands, territories and resources which they have traditionally owned, occupied or otherwise used or acquired.*
> *2. Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired.*
> *3. States shall give legal recognition and protection to these lands, territories and resources. Such recognition shall be conducted with due respect to the customs, traditions and land tenure systems of the indigenous peoples concerned.*
>
> Article 26 of UN Declaration (UN General Assembly, 2007)

> *1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.*
> *2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.*
> *3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.*
>
> Article 32 of UN Declaration (UN General Assembly, 2007)

Article 26 is one of the most significant in expressing the general rights of indigenous peoples; in parallel, Article 32 mentions the standard of land rights that the state must consider when developing lands that affect indigenous communities and lands.

In 2008, 29% of Thailand was categorised as protected areas (Tamee and Khongkachonkiet, 2008: 306), and this figure is increasing every year. The large number of indigenous villages are located on highland and forest areas, which have been declared protected areas and are controlled by the RFD (Erni, 2002: 276), who launched the concept of natural resources management to protect the forest. Then, the rights to manage natural resources became a key controversial issue between indigenous people and the state, in the form of the forestry law called the “Community Forest Bill”. However, the Thai state has enacted various laws to protect and conserve forests and wildlife, leading to all forest land being under state management. The particular concern is that the regulations conflict with existing forestry laws and indigenous people in protected areas such as national parks and wildlife sanctuaries.

The indigenous communities are therefore faced with a major challenge. Under the Act, the state regained control of the forest; however, there are those who have been affected by the state's policies, particularly the poor and indigenous people. Indigenous people believe that the Act will result in further violation of their communities' rights to manage natural resources such land, forest and water.

After how they were treated by the junta's policy to reclaim national park lands, Karen villagers who had been living in the forest for generations made a complaint to the authorities to stop confiscating their land, even though the Karen have never legally been permitted to settle in protected areas, and it is known that their traditional livelihoods rely on the forest. Therefore, they are restricted to limited areas or allocated plots of land, and many Karen currently fear that they might even be evicted from their land (Prachathai, 2014).

Furthermore, there is prejudice against highland communities and a view of them as "forest destroyers"; for example, some Karen were arrested by forestry officials because they farmed hill rice without permission, causing the degradation of forest land and damage to a water source. For decades, indigenous people practising rotating cultivation have been arrested every year, and they are also accused of contributing to global warming (Rattanakrajangsri, 2010). Although the Karen's forest management method is well known and being studied by many academics, revealing the Karen's ability to live in harmony with the forest, the state still turns a blind eye to these studies.

4.3.4 Landlessness: the change of livelihood

> *[…] The problem is that they do not have land. So, they have to return to the original land; meanwhile, the allocated lands are not appropriate for cultivating crops. […], some households have to take in their relatives whose houses were burnt down on the original land (*Khaosod*, 2011).*
>
> Kratong Chockviboon
>
> A former Karen leader of Banggloy village

> *If they [national park officials] ask me, do I need to move? I would respond immediately, No! But they force us. What should we do? We do not know. The important thing is, I do not need to move any more, because the last time, they moved us to this area [an allocated plot of land occupied by Pongloug villagers] contributing to some Pongloug villagers losing their lands. Until today, this problem has not been solved (*Posttoday*, 2012).*
>
> Mun Petmanee, a Karen villager

> *The villagers who are farming on allocated plots of land are faced with a lack of products because of the bad quality of the soil. […] The restrictions on using the forest lead to people facing difficulties. Although we can get water, we do not have land; we cannot survive (*Naewna*, 2013).*
>
> Plu Jeebong, a Karen leader of Banggloy village

The Karen suffer spiritually, physically and economically from the relocation policy. Forced evacuation to an allocated plot of land destroys their ability to be economically self-sufficient, causing social problems and eroding traditional culture. In the same vein, the concept of sustainable development of the national park does not include the Karen's life, economic principles and cultural heritage, because the officials focus only on the protection of the forest and its natural resources.

The scarcity of land is the force behind the current livelihood changes of the Karen, which is a critical issue, making it challenging to sustain traditional cultivation. Loss of land is the result of land and resources rights not being recognised by the state. Also, much of the land in the hands of a few Karen farmers is too small to sustain a traditional way of life following traditional land use, whereas *"the strength of traditional land use systems lies in the diversity of locally adapted practices and crops are grown adopting to the local environmental and climatic conditions"* (IWGIA, 2014: 8). The impact of landlessness is the limitation of traditional farming that affects the customary livelihood systems and increases food insecurity. As a result, many families are not self-sufficient in food, particularly rice, which is a core food of the Karen.

4.3.5 Is rotating cultivation bad?

Many arguments are brought forward against rotating cultivation; for instance, it is claimed that it is an uneconomic, inefficient and ecologically harmful practice. But these claims have been proven inaccurate and outright wrong (IWGIA, 2014: 2). Many scholars have confirmed the value of the Karen's knowledge about land use and management practices. However, policies have hardly changed (IWGIA, 2014). Additionally, climate change discourse has become part of the debate on rotating cultivation, which is blamed for causing carbon emissions. Although rotating cultivation is technologically primitive, it does not cause deforestation but forest modification. It contributes to biodiversity enhancement and food security because it traditionally relies on a large number of crops. It also increases the edible wild plants in the forest as compared with the primary forest, contributing significantly to food security as shown in the statement below.

> *[…] In March–April, we will grow vegetables, dividing [them] into three periods. The first is short-period crops such as Chinese kale. The second is medium-period crops such as beans, pumpkins, corn, etc. The third is long-term crops such as sugar cane, taro or potato. After that, we will cultivate rice […]*
>
> Karen group discussion, 2 September 2017

Many researchers (Delang, 2002, 2003, 2005; Tungittiplakorn, 2008; Santasombat, 2004) over the past decades have produced empirical evidence against the prevailing biases of the state that rotating cultivation is inefficient and destructive to the forest as well as causing carbon emissions. However, the state still ignores this and focuses only on preserving the forest without considering the indigenous people. This leads to the Karen suffering from land restrictions on cultivation of rice, contributing to partially losing their cultural practice causing vast changes in the community.

The limitations on traditional farming cause many Karen to stop farming. Some were arrested because they carried out rotating cultivation beyond their allocated land. This evidence makes the Karen afraid of the regulations, while the present land cannot support rice successfully. What happens if they cannot cultivate rice (which is an immense, crucial question)? Fundamentally, rice is extremely tied to the Karen life, and they respect rice as much as their god. For example, before farming, they commonly carry out a ceremony to worship the rice spirit and pray for a beautiful harvest before cultivating the rice.

In terms of traditional culture, today some ceremonial activities and rites relating to rice cultivation are at risk and may be lost; for example, the eating of sprouting seeds, offering food for the spirits, offering food to ward off criminals or the ceremonial to eliminate the evil spirit. Furthermore, it affects the change of dwelling; for instance, in the present village, no one has built a barn in the village to collect paddy rice, and

agricultural equipment is used less, causing the people to produce less. It can be said that today they cannot carry out rotating cultivation as in the past due to the limitations on their land, although traditional farming plays an essential role based on spiritual and cultural practices in providing livelihoods and food security in the Karen community.

4.3.6 Fear after Karen activist goes missing

Porlajee Rakjongjaroen, known as "*Billy*", was my Karen colleague who helped me to collect data to prepare the housing project in 2014. He also held the position of a member of the Subdistrict Administrative Organization (SAO) as a local government agency. Porlajee has been missing since April 2014 after he was detained by national park officials at a checkpoint because he had unlawfully taken six bottles of wild honey allegedly found in his possession. After that, he had been released and disappeared after that.

He also held evidence of officials' abuse of authority, particularly against the former chief of the national park regarding the alleged burning of houses of more than 20 Karen families living on the original land in July 2011. He became a target because of his role in defending the rights of the Karen regarding them being forcibly evicted from their homeland (*Khaosod* English, 2014a). His disappearance has inflicted serious damage on the Karen Banggloy and his family, and also increased the sense of insecurity and fear. Today, the Thai authorities provide no information about him and we do not know at all where he is. Also, his wife said to a newspaper reporter:

> *"I am filing an appeal because I feel that no justice is being done for Billy. It's been five months since he was detained by park officials, but we still do not know about his fate. I want the court to be fair and transparent, so we can know where Billy has gone to. My five children keep asking me, when is dad coming home? Why is he not coming home?"* Porlajee's wife said.
>
> (*Khaosod* English, 2014b)

The Karen's fear rises in response to their living conditions and future threats leading to the confrontation. The process of cognition of fear generates appropriate behavioural responses. The people fear to be arrested and go missing like Porlajee; in turn, this also generates more conflict between the Karen and park officials. Additionally, this affects the re-housing process regarding the use of materials and compliance with building regulations, which must be checked and given approval by the national park.





Fig 4.21 Porlajee Rakjongjaroen (Billy)

Both photographs were taken on 24 December 2013. We held this meeting to collect data and create the community development plan. I contacted him regularly about the project and my last contact with him was on 12 April 2014, or five days before he disappeared. We were preparing to collect more data to create the initial housing project proposal.

4.3.7 Are we forest destroyers?

Aenor was arrested by national park officials at Banggloy Bon (on the original land) in June 2017 as a forest destroyer and hunter. She has a house in the village but she does not have a plot of land for farming; therefore, she had to return to the original land to farm. She cultivated rice, chillies and pumpkins around the football field. I had an opportunity to interview her on the afternoon of 8 July 2017. Plu, a Karen leader, was a translator.

> *"I returned to the original land and lived there around one month and then I was arrested as a person who intruded into the conserved forest. After the arrest, the officials destroyed my stuff, agricultural material, paddy rice and house as well as the fields",* Aenor said.
> *I asked her where she lived before building a new house in 2015.*
> *"I lived at Banggloy Bon. Actually, I moved in 1996 and lived in Banggloy village for ten years. Then, my husband and I moved back to Banggloy Bon again. But my children still lived in the village because they had to go to school. Then, I moved back to the village again in 2012", she further said.*
> *"The last time I went to my land at Banggloy Bon was around two months ago and I stayed there for a month. And then I was arrested and brought to the police station in the town. The police informed me of the allegations as a destroyer of the forest. Teacher Satorn bailed me out of the police station. In the next month, I have to go to court to acknowledge the verdict. […] I went to the farm only and came back to the village. I farmed bananas, corn, chillies, pumpkins, beans and rice, etc. My house was close to the field which was around a football field. But officials destroyed all. They also demolished the house, burnt clothing, poured salt and rice away, and destroyed cooking equipment",* she said.
> *"A newspaper reported that officials found an old gun, gunpowder, lead shot and muntjac deer meat. Did they belong to you?*" I asked.
> *"Actually, it was not muntjac deer meat, it was wild boar meat. People who walked past my house to come to this village gave me meat, around ten pieces. […] The gun and gunpowder belonged to my husband, he passed away two years ago. I cannot shoot, I do not know how to shoot. I just need to keep it because it belongs to my husband. I tried to escape the park officials but I stumbled and my breasts hit the ground and I was knocked unconscious. So, officials found and arrested me (she laughed when she said this).* "*Are you scared?*" I asked. *"I was not scared but I was angry", she said and laughed.*
> *"Do you know you were charged?"* I asked. *"Yes, I know, but I do not know what I should do. I cannot speak the Thai language at all. I cannot work in the town. Today there is no job for me. I do not have Thai citizenship",* she responded.
>
> Aenor Pugad, 40 years old, 8 July 2017

This case indicates again that the Karen cannot return to live on the original land or even cultivate rice in the forest. Also, they are all labelled as forest destroyers by officials. The Karen leader used to say that *"no one need go hungry and die here, we all search for possible ways to survive, we will even take the risk",* like Aenor. As I knew, some people still hide in the deep forest and cultivate rice and crops, but few are successful. Some also take big risks and might be arrested.



Fig 4.22 Aenor Pugad
I talked to her at Poungloug village.

4.3.8 The Karen movement

Today the indigenous communities face pressurised conditions under Section 44 because people's movement is controlled and monitored by the government. However, the indigenous peoples' movement has grown stronger than in the past due to the help of civil society organisations (Tamee and Khongkachonkiet, 2008: 307) such as the National Human Rights Commission. According to Articles 3, 5 and 11/1 of the UN Declaration, the Karen have rights to self-determination and maintenance of their cultural institutions.

> *Indigenous peoples have the right to self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development.*
>
> Article 3 of UN Declaration (UN General Assembly, 2007)

> *Indigenous peoples have the right to maintain and strengthen their distinct political, legal, economic, social and cultural institutions, while retaining their right to participate fully, if they so choose, in the political, economic, social and cultural life of the State.*
>
> Article 5 of UN Declaration (UN General Assembly, 2007)

> *Indigenous peoples have the right to practise and revitalize their cultural traditions and customs. This includes the right to maintain, protect and develop the past, present and future manifestations of their cultures, such as archaeological and historical sites, artefacts, designs, ceremonies, technologies and visual and performing arts and literature.*
>
> Article 11/1 of UN Declaration (UN General Assembly, 2007)

In August 2010, the Thai cabinet passed a resolution, which was an attempt on the part of the Thai government to solve a long-standing problem faced by the Karen as a result of misunderstandings about their traditional way of life. Their policies were divided into two: a short-term (6–12 months) and a long-term (1–3 years) work plan were agreed by the cabinet. They covered five main issues: revitalisation of ethnic identity, natural resource management, citizenship rights, transmission of culture and education (PCPDI, 2011). However, the implementation of such activities is currently being discussed by the agencies involved. The present situation concerning state policies is currently not clear as regards implementing laws and policies protecting human rights. Therefore, the overall situation of the rights of indigenous peoples still needs to improve.

The national healthcare scheme[19] is not fully available to the indigenous people, particularly those who do not have Thai citizenship (Erni, 2007: 343). This means that non-Thai citizens are not eligible for free medical treatment. Moreover, lacking

[19] Thai people obtain access to services in their health district by paying US$0.75 (this was originally known as the 30-baht project).

citizenship has been a cause of human rights violations but it does not guarantee limited fundamental rights, freedom of movement and healthcare.

4.3.9 World Heritage status

> *Indigenous peoples have the right to participate in decision-making in matters which would affect their rights, through representatives chosen by themselves in accordance with their own procedures, as well as to maintain and develop their own indigenous decision-making institutions.*
>
> Article 18 of UN Declaration (UN General Assembly, 2007)

An additional concern of the Banggloy Karen is that in 2011, the Thai government submitted a proposal to UNESCO to inscribe the Kaeng Krachan Forest Complex (KKFC) as a natural World Heritage site.[20] Most of the villagers living in the KKFC areas were concerned about this project because they received little information regarding the proposed establishment of the World Heritage site. They are afraid that the creation of the natural World Heritage site will negatively impact on their daily life.

Their concern includes a lack of participation; therefore, the Karen need full information on both the advantages and disadvantages of establishing the World Heritage site. In 2015, the proposal was rejected by UNESCO because it did not uphold the rights of the Karen people, requiring resubmission. Furthermore, many critical issues have still not been resolved, such as the forced disappearance of Porlajee, and securing land and resource management rights for the Karen.

The Banggloy Karen further mention that they already only have limited rights to use forest resources and things might get worse if the proposal to UNESCO is resubmitted (Prachathai, 2015). However, according to UN Article 18, the Karen should be allowed to participate in decision-making on the use of land and natural resources in their areas that affect their lives and the cultural heritage of the Karen communities in the region should be taken into account. However, the national park is still ignoring the Karen's rights, issues and concerns, and decisions are being implemented without their input; in other words, they are often excluded from the decision-making processes.

[20] It consists of four protected areas: Mae Nam Phachi Wildlife Sanctuary, KKNP, Kui Buri National Park and Chaloem Prakiat Thai Prachan National Park, covering a total of 482,225 hectares (Rattanakrajangsri, 2012).

4.4 OTHER ACTORS

4.4.1 The national park

Since the establishment of the Kaeng Krachan National Park in 1983, the state has engaged in a concerted policy of harassing and forcibly evicting the Karen communities from their original land. The state claims that traditional farming methods are inconsonant with conserving the forest, and the migration of non-Thai citizens from Myanmar is a border security risk. However, in principle, the housing project cannot be implemented without the national park, because the park officials are associated with the project as the official keepers of the land and forest. The park officials become a key partner of the project. The national park holds a legitimate use of power to approve the project due to the legal status of the national park law. All project agreements between the Karen, CODI and facilitators must also be approved by the park officials before each phase of building houses. To ensure that all the stakeholders are Thai Karen people who were evicted between 1996 and 2011, the building materials used in the project should be suitable for the natural environment. All building materials will be checked at the national park checkpoint before being transported to the village. This, of course, puts pressure on the Karen, who need to use some industrial materials such as galvanised metal sheets, fibre cement roof sheets or cement blocks.



Fig 4.23 The national park officials check Jorwa's house before approving his building status
National park officials will check every house before approving each phase of the project. They have authority to control the beginning of the building process. The house checking committee consists of the Karen leaders, the national park official, the military and householders to check and sign the agreement together before building houses. Photo: Lonnachai Ladoa

4.4.2 Role of NGOs and other organisations

Many NGO networks are helping the Karen to solve their problems in different ways; for instance, the Karen Network for Culture and Environment (KNCE), the Northern Farmers' Network, the Inter Mountain Peoples Education and Culture in Thailand Association, the Indigenous Knowledge and People Networks. All of these try to assist the Karen to obtain their rights, focusing on the human rights of indigenous people.

Additionally, the PTLF is the notable organisation that has adopted King Bhumibol's principle to assist the Karen by emphasising people's participation in agricultural practice (TSDF, 2017). The PTLF has assisted the Karen since 2011 after the last Karen group was evicted from the original land to the present village. However, some PTLF projects have failed to meet the needs of the Karen. For example, the rice terrace in 2013 had expectations of a positive outcome of producing sufficient rice for the people to consume; nonetheless, it failed due to soil problems and lack of water. Therefore, the PTLF adjusted the strategy by encouraging the Karen to grow other crops such as bananas, limes and durians, because these crops can survive in this soil condition. Meanwhile, the PTLF's project was criticised by many NGOs, in that they were taking the wrong approach because rice was the most important crop in the Karen's life. The Karen have to sell crops to generate income to buy rice to consume within the household. Furthermore, the PTLF also encourage the Karen to raise livestock to consume within households, such as chickens, pigs and fish. However, from a positive viewpoint, the PTLF has power to protect the Karen in some ways and can reduce the tension between the park officials and the Karen. Montha, my NGO colleague from CTF, is a key coordinator of the housing project to connect with and provide correct information to the other organisations. She works very closely with the Karen and provides advice on the best methods to practice in the project.

As mentioned above, each organisation has different roles that influence the Karen directly and indirectly to develop their community. They engage in activities to work with the Karen to plan and act how to achieve their objectives. We found that some organisations conflict with each other regarding development perspectives and Karen rights. Then, my role is how to facilitate the housing project to achieve the goal of CODI and enable the Karen to develop the community.

4.4.3 Teams of craftsmen

Teams of craftsmen are set up to support the building process. They are the Karen in the community who have building skills, both traditional and contemporary, including understanding how to manage the building process. The community committee selected them and divided into two groups: groups of four of five people each, to create effective construction management. Their work helps the householders to build the house structure, including the columns, floor and roof structure, spending around a

week on each house. After that, each householder will continue to build their house themselves. The project provides financial support of around £90 per house to the teams of craftsmen. At the beginning of the work process, we have to train them and make them understand the roles of craftsmen in this process.

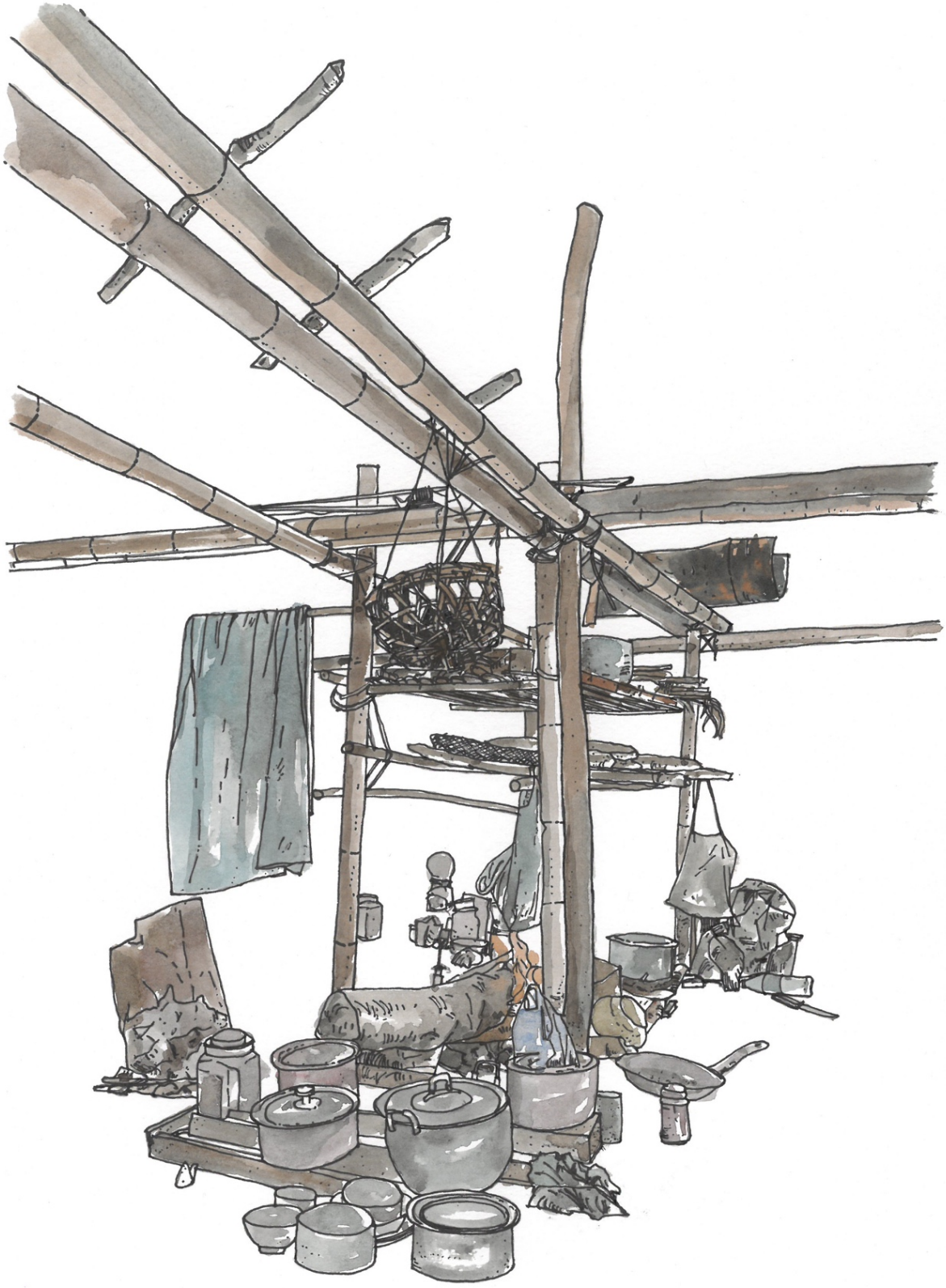
The role of the craftsmen can be summarised as follows. Firstly, the teams help the community committee to survey the houses' conditions to provide an estimate of the building materials required to repair and rebuild at each phase. They also send a representative to survey the houses with the park officials to approve houses at each phase. Secondly, the teams lead the building schedule in terms of estimating the time to build each phase. Thus, we cannot create the schedule of the action plan without the teams of craftsmen. Thirdly, they advise householders about building materials, such as combining reused and new materials to reduce costs, and including helping the householders to check the building materials and estimate the building costs. They also have a responsibility to estimate the amount of materials to be used in construction. Lastly, the teams give the estimated budget to the committee to be integrated with the house building plans and budget plans of the community. This can help to confirm the time frame of the action plan. The craftsmen's role is a part of a process that convinces householders to learn from their practices about how to manage the cost of building under many constraints. Also, the building of houses by the people in the village creates good relationships, and it is a way to strengthen the community by using house building activities as a tool.

4.5 CONCLUSION

This chapter has examined the challenges of indigenous Karen people focusing on settlements and political issues. The critical problem is the struggle to maintain their way of life in the current settlements; for example, the policies to reclaim the forest and relocate people are also a problem for those inhabiting the forest, who might be evicted. Although Article 10 of the UN Declaration mentions that *"Indigenous peoples shall not be forcibly removed from their lands or territories",* the state still ignores this. The conflict between the Karen and park officials is still the critical problem today. This leads to difficulties building trust with each other. For example, the fear after the disappearance of Porlajee increases distrustfulness; also, Karen people are still arrested due to farming on the original land. In addition, they are not clear about the benefits and negative aspects of the proposed establishment of the World Heritage site. These problems have unavoidably affected the building process because the park officials are actors in the process.

It can be seen that these contexts have had an influence on community development and the direction of development. Therefore, attitude and perspective are essential in investigating the re-housing process. In the following chapter, I will examine the

material culture in the Karen's houses and the village to gain insight into their thoughts and the relationship between objects or artefacts and the spatial arrangement.



CHAPTER 5: EXPRESSION AND MATERIAL CULTURE

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EXPRESSION AND MATERIAL CULTURE

27 December 2015
3.00 pm. After meeting, I talk to Plu:[21] *"We would like to learn more about the Karen and life in this village, especially houses. We would like to suggest using a method of taking photographs. It is about taking photos of things in your houses. What are the most important things in your houses? We suggest taking three photos per household.*
Who can help us to lead this task, do you know?" I asked.

"I think that Bank and Kittipot can help us. They know how to use digital cameras", Plu said. "*Good*", I said. After they learned how the digital cameras work, I gave them digital cameras; one is for Bank, going to the north of the village, another one is for Kittipot, going the south of the village.

6.00 pm. They are back at the community house. *"I am done, but someone does not understand how to use a camera. I taught them but they did not understand. So, I took photos instead of them but they pointed out the objects and I took photos, is it ok?"* Bank said. *"For me, someone took photos repeatedly because they do understand how a camera works. They felt excited to take photos",* Kittipot said.



[21] Plu is a Karen leader.



Fig 5.1 Bank and Plu prepare to take photos.



Fig 5.2 Bank teaches Nor-ea to take photos

I was walking past his house and saw him by chance, so I used my smartphone to take a photo of them taking photos.

> *Material culture is culture made material; it is the inner wit at work in the world. Beginning necessarily with things, but not ending with them, the study of material culture uses objects to approach human thought and action.*
>
> (Glassie, 1999: 41)

This chapter aims to discuss the culturally specific ways that the Karen express their life through material culture. It also investigates the role of material culture in social relations by employing anthropological analysis in terms of visual communication. It is premised on the assumption that it is investigating the material culture as a social process, in which artefacts or objects and acts are produced with the intention of communicating something (Ruby, 2005). This therefore certainly shows the relationship between the Karen and artefacts or objects for various reasons. The findings enhance understanding of the Karen life through important artefacts in the houses. This is an act of becoming aware of survival, belief, activities and experience of the group. These will connect to the house building process in terms of consideration of design and context.

5.1 NINE EXPRESSIONS OF MATERIAL CULTURE

The relationship between material culture and spaces explains the spatial interaction regarding body movement – walking, sitting or sleeping – as well as the physical and mental environment of spaces. Each item is described through physical space, concentrating on the dynamics of material culture. There are various objects in the spaces with which the Karen engage in the process to present through their eyes and hands recorded on hundreds of photographs. This part is non-verbal communication that takes place through various items, creating an understanding of the context. Each item has its territoriality, showing the relationship between people and spaces. This also concerns how people interact with these items; and in turn, how items respond to them in terms of meanings.

This section aims to discuss the self-identity of the Karen through the various material cultures by organising the artefacts or objects from the most to the least important; cooking equipment, agricultural tools, water, rice, electricity, the King's picture, the Buddha's image, people and traditional clothing. These photos of material culture in this section were taken by the Karen (see photographic methods in Chapter 3).

Table 5.1 The Number of Photos of Important Things in Karen Houses

Objects	Number of photos
Cooking equipment	74
Agricultural tools	32
Water	25
Rice	23
Electricity	9
King's picture	4
Buddha's image	2
People	2
Traditional clothing	2
Building materials	2
Money	1
Mortar	1
Total	177

I obtained 177 photos from 59 houses (three photographs per household), following the question "What are the most important things or items in your house?" These photos of material culture are categorised into 12 groups. This section will explain nine significant objects.



Fig 5.3 Examples of various photos taken by the Karen





Fig 5.4 Photo elicitation with Takinu Kwabu
He arranged them from the most to the least important items in the house. Then we discussed these photos (see next page).

I went to see Takinu at his house as usual. I needed to talk to him about photo elicitation.

"I am very busy taking care of the twins because my wife has to work at the weaving house every day. Then, this year, we did not farm anything because of the twins", Takinu said and felt exhausted. After we talked a little bit about his life, I asked him to rank the photos by choosing nine of the 12 photos. The question was: what were the important things in his life, using photos to rank them from the most to the least important?

First of all, he focused on food. *"How to produce food? If there is no rice, we cannot live. We have to use knives to prepare land for farming, for instance, cutting small trees down, weeds or chopping firewood",* he said. "*Why do not you change the fireplace to a brazier?*" I asked. *"I am familiar with using it, and it looks easier than a brazier or gas stove; while on winter mornings, the fireplace provides us with warmth",* he said.

Next, the Karen clothing is an inheritance from ancestors. "*Do you have it?*" I asked. *"Yes, I have, we wear it in the case of a special ceremony or event such as a wedding ceremony. Currently, we wear T-shirts like people in the town. (…) The Karen shirt and sarong might take time to weave – around one year",* he said.

*"Next, a basket [*keu*] is for keeping rice. It is also important, not only for keeping rice, but also for collecting vegetables or firewood",* he told me. "*Do you have one?*" I asked. *"Yes, but I already sold it for 900 baht to people who visited my house", he said.* "Then, can you weave a new one?" I asked. *"No, I do not have good weaving skills, and also the kind of bamboos for weaving are hard to find around the village. We sold it because we need money. Today, we use fertiliser bags to contain rice and carry out firewood. It is easier than [using] the bamboo basket",* he said.
For the next photo, he picked a family photo (which depicted people having a meal together) and said that *"we have breakfast and dinner together every day, but not lunch. My sons and daughters have lunch at the school."* The next photo was of water.

"*Where does [your] drinking water come from?*" I asked. *"The river", he said.* "Is it clean?" I asked. *"Hmmm...yes",* he responded. *"How do you know which is for drinking and which for washing? Do you bring it all from the same place?"* I asked. *"All the water comes from the same river, but I separated it. If the plastic containers has a cover, that is for drinking; if it does not, that is for washing",* he explained.

The last photo was an image of the Buddha.
"My brother-in-law is a monk. Last year, he stayed here for a while. He became a monk three years ago. He was born in the Banggloy Bon village, then moved to here. After that, he decided to be ordained as a monk in the town. He used to live with me for a while", he said.

(Takinu may learn something, such as the way of Buddha from him. An opportunity for the Karen monk is to study for free in the school of religious education.)

Takinu Kwabu, 17 August 2016



Fig 5.5 Cooking equipment in the cooking area

This is generally the cooking space in the Karen house. The equipment in this area consists of pots, pans, dishes, bowls and the mortar that reflect the unique environment, economics and traditions. This equipment is on the shelf and the split bamboo floor. The firewood is on the shelf above the fireplace. Photo: Karen villager.



Fig 5.6 Agricultural tools

The Karen use axes and knives in their everyday life for farming. Actually, they have many types of axe and knife to be used in different types of work. Photo: Karen villager

5.1.1 Cooking equipment

First and foremost, a cooking area is a place to gather, cook, eat and share ideas in the family. Many households stated that their cooking equipment was important in cooking and preparing foods in everyday life. This finding helps us to understand the interaction between cooking equipment and space. These activities are expressed through the cooking area design and functionality. For example, the split bamboo floor was built in order that people may throw waste food or water to underneath the house to feed livestock or other animals. Also, an open wall was built to allow air to flow out and allow light to come in, making space and keeping the equipment dry.

The cooking area is a social space that shapes human interaction and its boundary is often marked by equipment and other elements, such as fireplace, pots, pans and floor pattern. Cooking is not just about surviving and eating. The Karen share a common principle concerning the ways in which particular artefacts are used to define the cooking space. It can be said that this equipment connects the cooking area's meaning and the environment, revealing the expression of culture. All components define the characteristics of the space; in turn, the space reflects the conditions of use of the equipment and objects. In this sense, the cooking equipment reflects the symbols and activities of the space.

5.1.2 Agricultural tools

Agricultural tools play an essential role in Karen culture in farming since the time of their early ancestors. The Karen have many different types of knife and axe for farming and cutting firewood. Some types of knives are used as cooking equipment. They also use them to remove weeds and harvest crops, while narrow furrows are dug with a hoe. Also, a hoe may sometimes be used on the surface of the soil for weeding. They usually maintain it by stabbing it at the flattened bamboo wall to keep it dry and safe. The knife and axe are simple tools that are not only used for farming, but also creating houses; for example, by using a knife to cut and chop bamboo to build wall and floor patterns. They are also a kind of weapon of the Karen. This can be seen in the statement of Dokmai Chaya:

> *Agricultural tools are very important if we still work the farms. We use them every day to farm. A knife is a sort of weapon to use to make a living; for example, splitting firewood and cutting/destroying the weed. Every male Karen always carry a knife with them when they go out to the fields.*
>
> Dokmai Chaya, 37 years old, 3 August 2016

Regarding the annual rice ceremony, after harvest, around December and January, the Karen will perform the agricultural tools ritual because those are the vital tools that

help them to farm and harvest the crops. Consequently, the agricultural tools represent the most important aspect of agricultural life and are a part of daily activity.



Fig 5.7 Water for washing in bucket
The face of the Karen who took this photo can be seen reflected in the water. Photo: Karen villager

5.1.3 Water

Undeniably, all people require water for consumption. The Karen keep two types of water in the house: drinking water and water for washing. Although both come from the Phetchaburi river, they separate it for different uses. Safe drinking water is put into plastic containers, while water for washing is in buckets. From outsiders' perspective, they may think that water from the river is not clean enough for drinking. Although the Karen take water from the same part of the river, they believe that the river water is clean enough for drinking. They should boil the water to kill germs before drinking. Water not only reflects personal and the community requirements, but also provide a sense of the security of life. Furthermore, this defines a sense that shows the result of the relationship between the Karen and the river. For example, the name of the village, *Banggloy*, is the name of the river by the original land. Many Karen surnames are associated with the name of the river, such as *Tonnamped*, which means the head of the Phetchaburi river. This also reflects the influence of the way in which the settlement was selected in the past. The Karen select a piece of land near the river to build houses.





Fig 5.8 The paddy in the plastic bucket
Above: Jorpluepae taking a photograph. Below: his photograph.
The Karen consume rice as a main course. It is an essential grain with regard to nutrition. Rice and paddy will be kept in bags or plastic or stainless buckets or in a safe place away from chickens and rats.

No rice, no life!
No water, no life!
No fire, no life!

Dokmai Chaya, 37 years old, 3 August 2016

5.1.4 Rice

Traditionally, rice is a key symbol of Karen society. It is respected as a god associated with its mythical origin, known as "*Paeu-Bi-Yo"*. Rice culture is a foundation of Karen society. The rice goddess is female. The Karen call her the mother of rice. The Karen's role is therefore to take care of rice as their mother. Thus, before and after cultivating rice, they will carry out the ritual to pay respect to the spirits to take care of the rice fields, to obtain enough rice to consume all year around. They do not only respect the rice, but also the river (*jao maenam*), the land (*jao tee*), the hill (*jao kao*) and the forest (*jao pa*). The rice performs a role both as a god and as food, maintaining the sense of identity in terms of the spiritual and physical worlds. It expresses the importance of and relationship between the culture and the environment of the dwelling. Fig 5.8 gives us a clue that the Karen do not need only rice for consumption, but also need agricultural areas for cultivating rice. Consequently, rice refers to the sense of spiritual relationship, tradition and food that are a result of the relationship with the natural environment.

5.1.5 Electricity

Although electricity was not a part of the Karen's life on the original land, today it has become important. For example, they need it to at least charge a torch battery for use at night. Many houses have an electric battery to make light available as needed at night. The battery is a common power source that is probably suited to the Karen house, although its capacity is limited to around three to five hours a day. Therefore, the people usually use electricity at night between 6 pm and 10 pm; if the electric battery is out at night, candles are an option. The importance of lighting at night contributes to bringing household members to join together; in other words, the lighting element provides comfortable feelings at night. It can be said that electricity has an influence on Karen life today in terms of modifying their world, such as accessing electronic devices.

5.1.6 Pictures of the King

Although Bhumibol Adulyadej (1946–2016) was the King,[22] he was frugal in his ways. He devoted his life to enhancing the quality of life of the Thai people. He established many local development projects, and one of the projects is in Banggloy village. It is the "Rural Development Plan According to the Royal Initiative". It has been applied by the PTLF since 2011. Thus, the King is regarded as a patron of the project. A self-sufficient economy is enshrined as a goal of development. The Karen respect the Thai monarchy due to the King's projects; therefore, we found the King's picture hung on

[22] The Thai King is a fictional deity or divine King in traditional Thai culture.

the bamboo wall in some Karen houses. However, we only found the pictures that come together with calendars in some houses. Various organisations – the PTLF or the bank – distributed these calendars. Thus, few people took a photo of the King's picture. Fig 5.10 indicates that the King's picture has an influence on individual attitudes rather than on physical concepts. In other words, it has an influence on the mind rather than on functionalities.

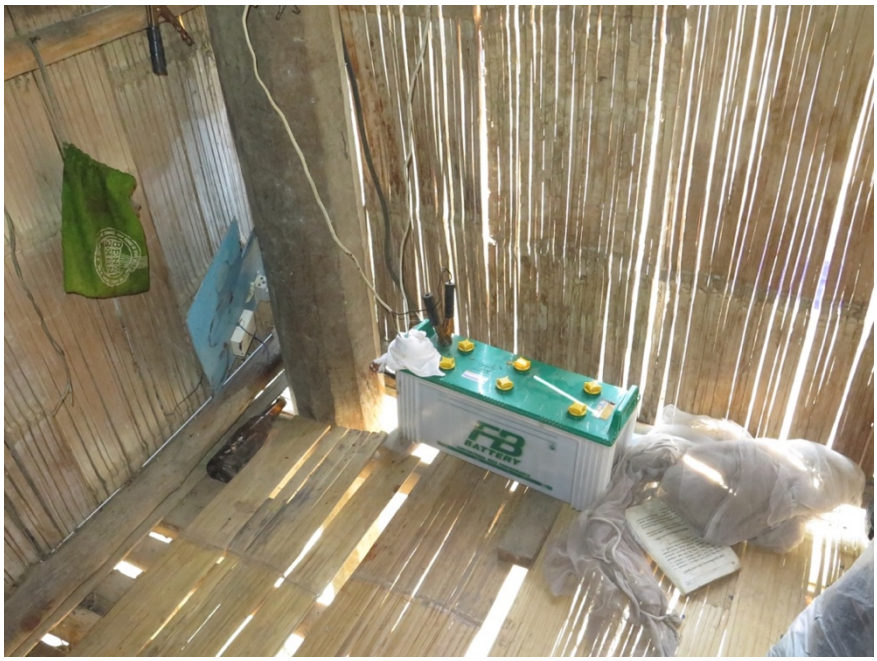


Fig 5.9 The electronic battery to collect electricity from the solar panel
Photo: Karen villager



Fig 5.10 The King's picture on a calendar
This is a calendar from a Thai bank. Thai people always put it on the wall. Photo: Karen villager



Fig 5.11 Buddha statue on shelf and images of the Buddha hang on the wall
Various images of the Buddha are hung on the wall; also, Buddha statues are located on the wooden shelf. The Buddha's position is usually located to the east or the direction of people's heads in the sleeping area. Photo: Karen villager



Fig 5.12 People
This villager took a selfie. She said, *"If there are no people in the house, it is not a home".* So, humans are the most important things in the house. Photo: Karen villager

5.1.7 Images of the Buddha

> *I was a monk for a few years. I had an opportunity to study at high school and have religious education. I graduated as a drama scholar at elementary level […] I returned home because I missed my parents.*
>
> Prem Chaya, 23 years old, September 2016

Approximately 90 per cent of the population in the village is Buddhist, which has played an essential role in Karen culture and society. Delaney and Kaspin (2011) note that religious concepts and worldviews are an integral part of culture that reflect and contribute to society. The relationship between the Karen and Buddhism began clearly when the Karen had to go to study in the town 20 years ago. Many people began their education by serving the temple as temple boys. Temple boys traditionally do minor temple work, such as acting as cleaners and servants. Then, they are allowed to live in the temple to finish high school. Also, some boys devote their life to serve the temple to gain a chance to study in the school. Even though there is no Buddhist temple in the village, the Karen people still believe in and respect Buddha in terms of social and belief relationships. However, they do not only believe in Buddhism, but also believe in the local spirit and the supernatural. They have integrated all these together and produced a hybrid belief relationship. As can be seen in Fig. 5.11, the position of the Buddha statue is in an important part of the house or on a shelf that is high enough to give respect to the Buddha.

5.1.8 People: occupants and bodies

A house becomes a home when people live and act in a house. Occupants are the centre of the process of home and more important than the artefacts in the home with regard to personhood. Merleau-Ponty (1962: 82) notes that "*the body is the vehicle of being in the world"*. The occupant's body is an essential in the relationship of house and environment concerning physical comfort and practical spaces. In daily activities, our bodies have emerged playing, reading, writing, cooking and sleeping, etc. The body is therefore a connector linking activities and spaces. In other words, occupants' bodies are linked to their homes through effective and emotional bonds; social relationships are manifested in spatial, psychological, and interpersonal terms (Werner *et al.,* 1985: 4).

The Karen mention that when people or occupants live in the house, this makes the house alive and makes them feel warm and part of the family. In other words, occupants make things or objects in the house alive in terms of communicating, using, playing or treating them. They see the interactions with each other. Furthermore, material culture or artefacts in the house will be meaningless if they are without users or occupants.

Dovey (1985: 43) views *"home as connectedness with people both through the patterns of sociocultural order and through the role of home place in the symbolization and representation of identity".* Home is a bonding of person and place and a set of connections between the experiences of living. In turn, I argue that users or occupants connect everything such as material culture, space and time together through various activities and their bodies. As Heidegger (1962) mentioned, the body is tied up with everyday activities. So, our body experience is an object that cannot be separated from the home.



Fig 5.13 Traditional Karen clothing
This photograph represents unique life and culture. As can be seen in the colour, texture and pattern, these show the specific characteristics of culture, local wisdom and traditional techniques. Photo: Karen villager

5.1.9 Traditional clothing

> *"Throughout the history of cloth and clothing, male and female artisans have elaborated on one or more of variables, inspired by other arts, by the available of raw materials […] No cloth or clothing tradition was ever static, although many traditions become known for their excellent or unusual qualities".*
>
> (Schneider, 2006: 205)

The concept of traditional clothing defines the group particularly; the characteristic of tradition expresses cultural knowledge. It is transmitted from one generation to the next and encodes the memories and history of the past. The natural environment has

inspired the characteristics and form of the pattern, including colour and decoration. The Karen translate the natural ornament into cloth. Traditional woven cloth will consist of functionality and status. Traditional clothing comes from sewing many pieces of cloth together. When the Karen weave cloth, they will estimate the size of the product to fit only the size of the wearer.

Furthermore, traditional clothing expresses cultural meaning and identity and serves as markers of status, age and gender (Delaney and Kaspin, 2011). For example, a Karen girl will wear a long white shirt symbolising purity and innocence. However, today traditional clothes are at risk of being lost because of the influence of modern culture and limited resources. The Karen change the wearing of traditional clothing according to how they feel about themselves in society and how they perceive the modern world. Nevertheless, traditional clothing is inseparable from their culture and society. They wear it only for important ceremonies and events such as a wedding, whereas T-shirts today are more comfortable and easier to buy and wear than the Karen shirt. Traditional clothing enables them to express their rich culture. The capacity of their clothing enhances who they are and their social relationships. Also, they are concerned with traditional knowledge to present their world to outsiders. In addition, the loom and traditional weaving materials such as cotton represent resources and environmental relations.

5.1.10 Reflections

Photographs taken by the Karen represent their self-image and the home environment, especially domestic artefacts. They represent their way of life in the environment of national park regulations. Material culture is narrated as a language expressing the home environment rather than the meaning of the house form. Also, the material culture plays a role in shaping the concept of identity, which can be seen in the first four artefacts and the material culture that the Karen selected: cooking equipment, agricultural tools, water and rice. These reflect the needs associated with daily activities. This material culture encodes these needs and deepens their significance. Rapoport (1969) mentions that folk tradition is the direct and unself-conscious tradition of the physical form of culture, its needs and values. Material culture does not involve merely a presentation of Karen life and environment relations, but also connects the meaning of the home to the environment.

Personal, social and cultural identity are embodied and objectified in material culture (Tilley *et al.,* 2006). Through material culture, we understand people's lives and what they think. A Karen house displays artefacts and material culture as a part of life. It is always ornamented by colour and natural things. It demonstrates the cultural values regarding personal and social identities. Daily practices through this material culture are part of the rhythms of homes, such as cooking, eating, weaving, working and

appropriation routines that involve certain places in homes (Werner *et al.,* 1985). In other words, these visual things logically proceed from the culture and needs. This can be seen through people's facial expressions, costumes, symbolic use of spaces, bodies and the design of their living spaces, as well as the artefacts they produce (Ruby, 2005). These depict and explain certain activities in the house and embrace the way of life.

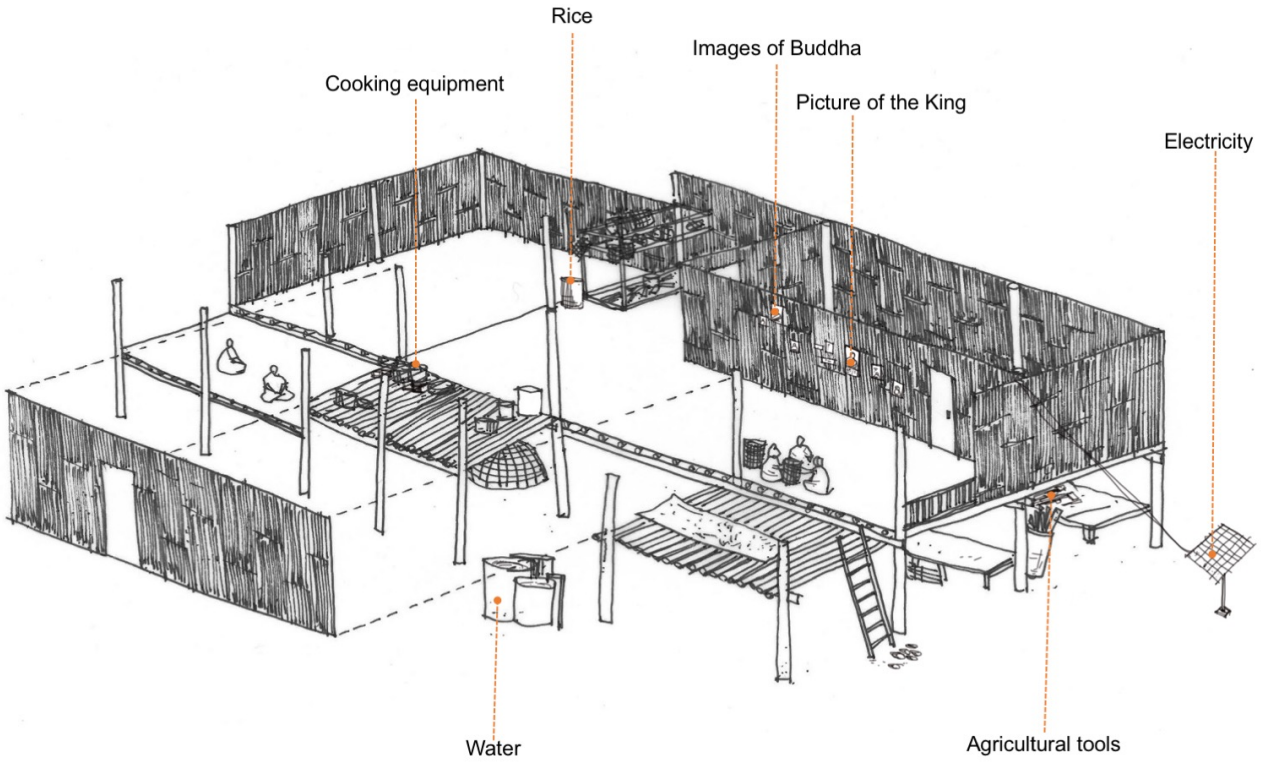


Fig 5.14 Positions of objects and artefacts in a Karen house

5.2 OTHER TRADITIONAL ARTEFACTS AND ACTIVITIES

5.2.1 Traditional bamboo weaving and toys

The Karen's artefacts have been invented to serve the simple life in the forest. Most artefacts are created from natural materials, particularly bamboo and wood. These, of course, are produced to support agricultural life. This part aims to present a couple of hand-made objects that can be seen in everyday life such as baskets, mortars and toys.

The first stage of producing a basket is finding the proper materials to weave. Bamboo and rattan are the key materials, which can be found near to the village or in the forest. The bamboo and rattan will be split into small pieces. Rattan is used to make baskets or mixed with bamboo to create stronger products. It is also used for various purposes in traditional house building. It is durable and suitable for outdoors. Regarding patterns, they not only have an aesthetic function, but also increase the durability of the product. Each pattern depends on the kind of craft, function and ability of the weaver. The hand-made woven objects can be divided into five types: agricultural, to catch animals, domestic, ceremonial and decorative. These objects reflect the traditional culture relating to their environmental contexts and available resources. They are products meeting simple functional requirements in everyday life. If we look at the weaving materials, we may understand aspects of the building materials, because these are examples of the same phenomenon. This is similar to the concept of the vernacular Karen house. For example, many Karen today do not use bamboo baskets in everyday life. They use fertiliser bags to store firewood rather than use a bamboo basket. In the same way, they use some kinds of industrial materials to build their houses.



Fig 5.15 Yapoo collects firewood from the forest
She holds an axe to cut off wood and uses a fertiliser bag instead of a bamboo basket to hold firewood. This indicates the changes in domestic objects and resources.

This is the bamboo basket or *"Keu"* in the Karen language. It is multifunctional basket adapting to use at the various time such as collecting paddy rice, maize and firewood. They usually use it when they go to fields.

Parmo Ladoa is known as an excellent bamboo weaver. Today, his main income comes from selling the baskets. He weaves baskets every day at the front of the house. When someone comes to the village, they easily see him in the house. Then, they always come to look, take photos and buy the baskets.



Fig 5.16 Karen hand-made objects: baskets



Fig 5.17 Using a wooden mortar and winnowing basket

A mortar is used to pound paddy and grain crops to produce food for both people and animals. It is created from a trunk of a tree, with a diameter around 50 cm. People then use an axe and a knife to make a large enough hole to pound.

The winnowing basket is often used together with the mortar. After pounding the paddy, the Karen will winnow the rice in a winnowing basket to eliminate dust, moths or dirt, which will be blown away by the wind when they winnow. After that, they can bring the good rice to cook, while the waste rice becomes food for chickens.



Fig 5.18 A Karen bamboo blowgun and bow

A Karen child is blowing a dart from a bamboo blowgun, and a grandfather creates a bow for his grandson. Karen children create toys or playthings produced from natural materials, such as bamboo, banana trees, wood and seeds. It can be seen that most toys relate to hunting activities. Bamboo makes a great choice for the blowgun as it is mostly hollow; the dart for the blowgun is also made of bamboo. Today the Karen do not use the blowgun for hunting, but children are often given toy versions and adolescents scaled-down training weapons. These examples indicate the unity between the Karen and the forest through a traditional invention, although some of them have gradually been lost from the village.

5.2.2 Traditional chewing: areca nuts and betel leaves

Betel quid chewers are usually found in South-east Asian countries, especially among the indigenous people. Additionally, smoking habits are also common among this population (Gupta and Warnakulasuriya, 2002). The areca nut is not a true nut; it is the seed of the fruit of the *Areca catechu* palm tree (Wazir *et al.,* 2016). The habit of chewing areca nuts generally occurs in Karen society and is considered as part of traditional culture.

The areca nut is getting popular with young Karen who have usually chewed betel and areca nut since they were teenagers. Some of them start chewing shortly after waking up and continue many times till after dinner. I found that only a few people in the village do not chew it. After chewing, the red residue is spat out; in cases where the person is in a house, they will chew and spit the betel quid through a little gap in the split bamboo floor. Additionally, the areca nut and the betel leaf are essential ingredients, symbols and materials that the Karen always use to worship the god and spirit; for example, in the offering to the god in the rice ceremony or building house ceremony, or when blessing the spirit before and after farming.



Fig 5.19 A Karen spits chewed betel quid through the bamboo floor



Fig 5.20 The process of making a betel quid for chewing

The Karen will slice an areca nut by using a particular knife for a fresh nut or a Karen scissor for a dry nut. They will mix raw and dry sliced nuts on their palm. Next, the mixed areca is wrapped in betel leaf and a little calcium hydroxide is mixed in. Then, they will put it in a small mortar stick and pound it until it is crushed and suitable to chew. Tobacco is added to the mixture in the final process. The left lowest picture displays the items for producing a betel quid. It includes tobacco, areca nuts, calcium hydroxide and a scissor.

In my personal view, from going in and out of the village quite often, I have seen that the village has been changing gradually. This is not only because of the park regulations and laws, but also the influence of external culture such as consumption and electronic devices. Today, smartphones, TVs, radios or even other products from the town are not complicated to buy.
So today, many Karen teenagers have smartphones. When I first visited the village four years ago, few people had cell phones. I had to call a community telephone (today it is not working) that was at the weaving house. All the people used only this phone to contact [someone] outside the village. I saw that someone was waiting for a long time for a call from his or her relatives who lived in the town, but no one called. Sometimes when a call came, people in the weaving house would run to call the person at home to come to receive a call.

Field notes, 20 September 2017

5.3 ELECTRONIC ARTEFACTS AND CONSUMPTION

This section aims to present electronic items and commodities that represent the modification of Karen life. These things are very common for people who live in the city, but for the Karen, they may be new things in the last decades, such as solar panels, smartphones and televisions. I found that they were not resistant to changes in their lifestyle, because they tested or evaluated things, but embraced new elements or electronic items when they perceived it as advantageous.

> *Technology is a corollary of human existence. Every technological act brings changes in two great relations: the one that always connects the human and nonhuman spheres, the other that is built to connect people with one another.*
>
> (Glassie, 1999: 232)

5.3.1 Solar panels

Solar panels are the main source of energy in the village. They are a key electrical energy source, providing people with a new type of life. It may be noted that the village changed gradually when people started to use electricity, because it powers many electrical devices such as mobile phones, televisions and radios. Today, around 20 per cent of all surveyed households have solar panels to generate electricity to use within their households for around four to five hours per night; while, for the other 80 per cent who do not have solar panels, candles and torches become a key source of lighting.

The community's solar panels are located in front of the weaving house, to generate electricity for it; therefore, in everyday life, villagers usually bring their mobile phones and torch batteries to charge there to have sufficient light to use at night. Interestingly, the number of mobile phones has rapidly increased because people can access electricity, and today, a mobile phone or smartphone is an affordable item. Moreover, it becomes an effective contact channel; for example, for people to contact their relatives or family members working outside the village.

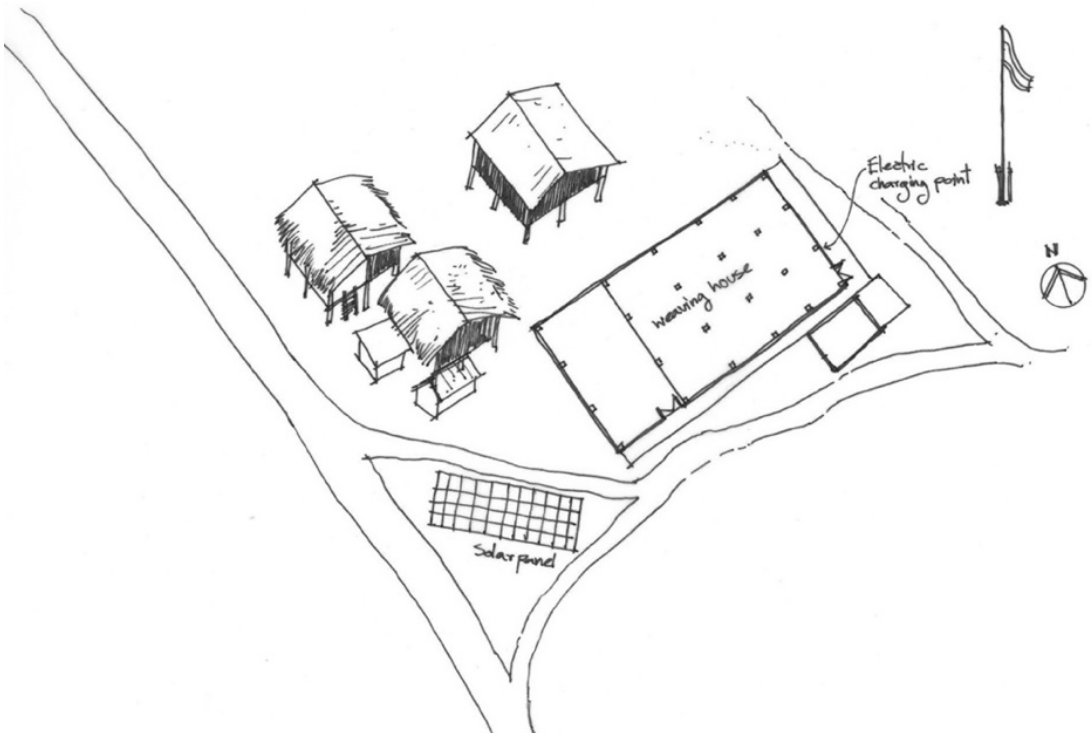


Fig 5.21 The position of solar panels and the weaving house



Fig 5.22 The weaving house

I did this painting in June 2014. It is the weaving house which is located in the centre of the village and a place of work for women in particular. Children also play around the building.



Fig 5.23 The community's solar panels and charging smartphones
Above: the solar panels are located to the front of the weaving house. Below: the Karen bring their smartphones and torch batteries to charge inside the weaving house.

5.3.2 Smartphones

Smartphones and mobile phones are widely used in the village. Although the telephone signal covers only a small area, that is certainly enough to connect the village. The widespread use of the smartphone is also a defining factor of community development as it is how they gain information and knowledge from the outside world. Additionally, on many occasions, smartphones provide them with the opportunities to create a dynamic network, particularly joining with the Northern and Western Karen networks. Children and teenagers often use smartphones to watch movies and listen to music. This shows that they absorb modern things through social media; in parallel, they have already become a part of the modern world. The importance of the smartphone may illustrate contemporary culture and adaptation of lifestyle. Hence, a smartphone is not only an item, but also a connective relationship between Karen groups, or between the Karen and other groups. Sometimes, it seems there is a new world for them. At the same time, although they do not resist modern items, concerns have been raised about how to keep the traditional knowledge together with the modern.



Fig 5.24 Karen children watching a video clip on a smartphone
The smartphone becomes an entertainment channel for the new generation of Karen. It spreads information, ideas and networks, and allows interactive learning. It also changes individual communication.

5.3.2 Televisions

A small number of households have televisions and usually watch them at night due to the limited supply of electricity. Television has become a significant factor in the Karen society as a modern device for entertainment, information and education. Children develop learning skills through educational and documentary programmes. However, there are many aspects of television that can be addressed, including negative and positive issues leading the Karen to change and adapt to connect with another culture. They learn the Thai language from television programmes and discuss the controversial issues. In Thailand, primetime dramas air between 8:30 and 10:30 pm. These are popular and influential in Banggloy Karen society. Karen viewers get emotionally involved while watching a Thai drama, whereas Western series are not popular in the village. When a Thai drama ends, the emotion runs out, and they move on to the next story, in order that they can join in the discussion for fun. Drama is an issue, along with fashion, that the Karen women like to talk about. Practically, they do not only discuss fashion, but also copy it to adapt to their culture. Their feelings are a sign of an emotional dimension that shapes the cognitive dimension.

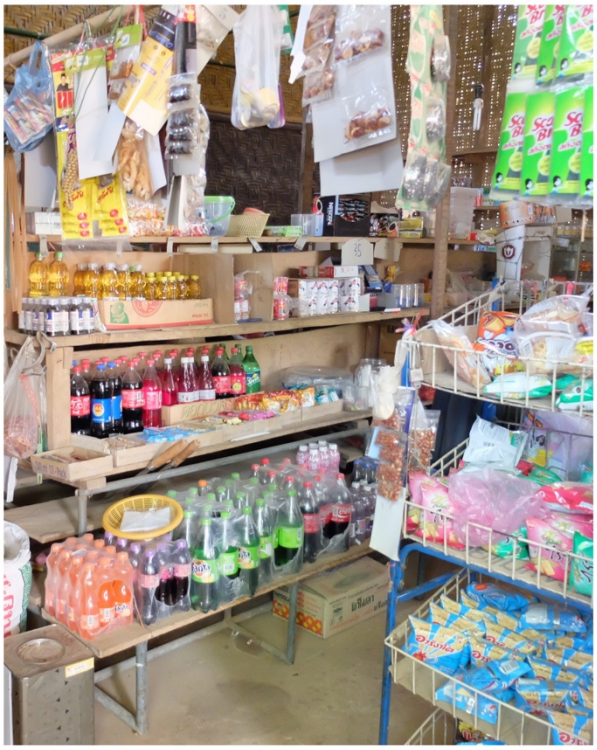
5.3.3 Commodities and consumption

A shop in the village that stocks various commodities from the town is a kind of link connecting the town and the Karen village. A shop is not only a place to sell things that the Karen need but also a place to show what they think. It indicates the fact that the commodities in the shop serve people's needs and try to add to the limited natural products. These are attributed to choices that involve contemporary culture. One cannot deny that commodities such as crisps, sweets, aerated soft drinks or other energy drinks as well as beers contain the forms and information of modern culture. Miller (2002: 245) notes that *"the commodity is a vehicle for capitalist dominance"*; it is a form of object domination. When the Karen consume these commodities, it means that they are absorbing the external culture. These commodities are not merely material culture, but are a symbol of mainstream culture. Thus, a shop is regarded as reflecting cultural attitudes on the land allocated to the Karen.



Fig 5.25 Television time in Jaroen's house

Jaroen, 36 years old, is a Karen teacher. His house has been built using permanent materials; it does not look like the other Karen houses. I stayed in his house to carry out fieldwork. At 8 pm every night, their neighbours, approximately 20–30 people per night, particularly women and children, come to watch television programmes, particularly Thai dramas (*la-korn*).







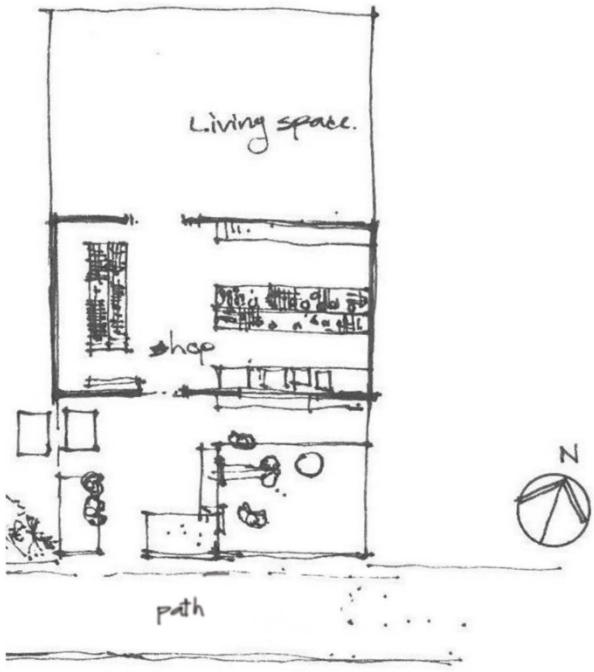


Fig 5.26 Commodities in a shop

The front of Boonmee's house has been adapted to become a shop. His concept is to sell everything that the villagers need. The big iceboxes contain a variety of beverages from the town such as beer, milk and soft drinks because they often consume these products.

5.4 REFLECTION: INTERACTION BETWEEN THE KAREN AND MATERIAL CULTURE

Much of this chapter has been about the collective identity of the Karen. Various interrelated issues focus on the material culture in their dwelling. It provides clues that identify needs, behaviour and traditions. This chapter has therefore aimed to investigate Karen life through material culture. From the participants' observation and photographs, we obtained many photos of objects and material culture. This approach revealed in what they were interested in everyday life.

These artefacts and objects are related to the considerations made in building houses and the community, because artefacts do not exist in isolation; they are associated with the setting and activities within the context. They meaningfully inform understanding of the Karen house. In terms of social life, these artefacts and objects provide insights into understanding where the Karen come from and who they are. For example, agricultural tools, equipment or clothing reveal things about the social and domestic life of the past and present. They divulge the stories of everyday life in the forest and provide a personal and collective memoir.

These items are important in communicating the sense of the Karen culture. This is communicated through forms, materials and functions, such as knives, pots, clothes and rice. These have meanings, both intrinsic and culturally specific, so that constancy and variability both play a role in socio-cultural life. They are a part of the dwelling displaying the way of life. On the other hand, modern technological devices such as solar panels, smartphones and televisions illustrate the changes and adaptations in everyday life. They amplify the new needs both of individuals and the group. Unavoidably, technology itself is a source of change and brings social change (Eglash, 2006). For example, watching television and using smartphones are teaching other worldviews. Thus, various technological items become integrated with the traditional lifestyle. In the same vein, they are associated with the consumption of commodities.

As such, the artefacts and material culture become a part of residents' identity and collective view. These objects represent a sense of home and living conditions, and then the house represents the society, which is more than just materialistic. This sense reveals the collective identity, values and sense of home. It can be said that a form of the Karen life may be seen through the relationship between people, artefacts and material culture. This allows us to gain insight into culture and activities. In some senses, house spaces are created from the associations between people, artefacts and material culture. They provide images of the house that people occupy, which also signifies the home environment. This is a collection of symbolic meanings, attachment and satisfaction within a spatial setting (Stedman, 2002).

In this sense, the occupants are the main components of spaces, integrated with activities and objects. For instance, the objects cooking equipment, water, rice and the fireplace integrate the cooking activities in the space. This creates senses: smells, feelings and features of the space. Various relationships between occupants and objects, such as family structure, symbolic meanings, ethnic values, rituals, daily activities, functions, needs and experience signify the identity of the house. They create cognition, emotion, personal feelings, physical features, activities, satisfaction and attachment. These material cultures contain constraints, socio-cultural life and modern technology; in the same vein, they are products of social forces. If we investigate the Karen house, we may see that it contains the same phenomenon. In other words, a Karen house is a material culture.

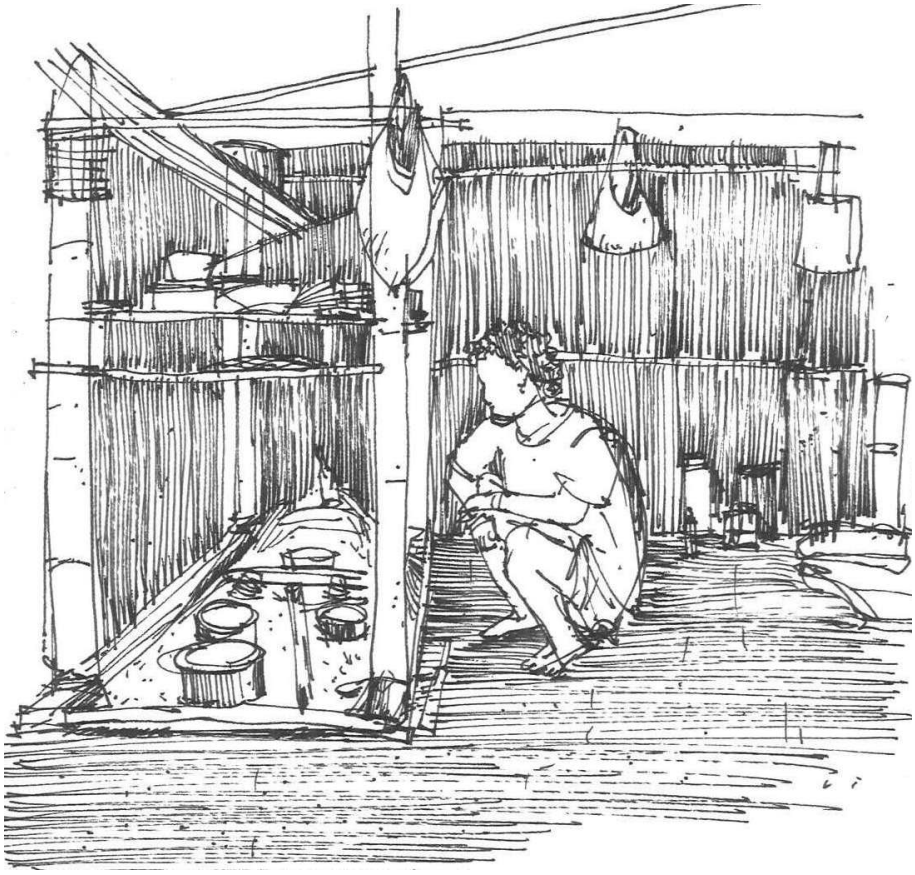


Fig 5.27 A Karen cooking in the cooking space
The cooking environment basically consists of cooking equipment, the fireplace and foods. The objects are a form of communication between people and space. Space identity is more concerned with integrating the objects, activities and people. It can be assumed that a relationship between people and objects defines the meaning of the spaces and the identity.

It can be concluded that material culture provides a holistic view of people's everyday life to understand the notions of what they do, what they produce and what they desire. Additionally, they act and take on identities not only as individuals but also as members of social groups. These forms of material culture are not only for communication, but also elaborate and generate the direction of the Karen housing design. We can read these objects as a part of the considerations of the design. A process of change,

modification and development of material culture shape our understanding of the Karen house. Material culture is implied in the notions of building houses and cultural identity. Moreover, it should be borne in mind that the spiritual and the material cultures are inseparable in the Karen home. In the next chapter, I will discuss how the Karen create and adapt their houses within many constraints.



CHAPTER 6: THE PROCESS OF CREATING DWELLING

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THE PROCESS OF CREATING DWELLING

Although I have studied architecture and worked with low-income communities for many years. I believe that I needed to learn more about the relationship between people and building processes. In the fieldwork, a new door was opened; I have learned more about the Karen and their settlement through practice. As Confucius said, *“I hear and I forget. I see and I remember. I do and I understand”.*

After the workshops and planning, the next step was building houses. Each family took responsibility to build their own house. They gradually collected building materials to bring to the building sites. Someone plans to cut bamboo in the forest. Someone plans to buy roofing sheets in the town. Each family has different plans. They all have the persistence and ambition to build their house.

All Karen people are born in the natural environment that informs their notions of dwelling and social suitability. Their ideas are fundamentally based on the local skills and environment. Before they have designed and built the houses, their hands have touched, their eyes have seen, their ears have listened, their noses have smelled, their minds have enquired into the comprehensiveness of forest, hill, land and river scenes.

Environment, regulation, tradition, money and labour become the building concept, and the concept becomes the drawing and model, the drawing and model become the plan, the plans turn into a set of decisions, the decisions become preparing and building. For them, a house is like any realisation of thought that forms in the mind as plans. When we provide tools and let them create, they can create houses themselves unconsciously.

This chapter concentrates on the building process, which is associated with many factors, such as social organisation, needs, incomes and tradition. It demonstrates how these issues relate to the re-housing process, and how the Karen create and adapt their houses within the regulations of the national park. A variety of stories about building houses reveal the relationship between building factors and the building process, such as social, economic and cultural issues. The beginning of this chapter will provide the Karen's perspectives, kinship groups and community spatial form to outline the understanding of the community development and space.

6.1 INTRODUCTION

In order to understand the range of building processes relating to the change in the Karen community, it is important to understand what factors influence change and adaptation within it. The character of human behaviour provides an outline of building factors, such as understanding human action and the culture's rules. The house is an institution created for a complex set of purposes (Rapoport, 1969). It also is a product and process (Turner, 1976) that is fundamental to the cultural well-being of the society (Mitchell and Bevan, 1992). Rapoport (1969) notes that socio-cultural factors are the fundamental understanding of vernacular architecture as a primary factor. Also, the vernacular house form is associated with religious belief (Reglan, 1964), myth and ritual (Oliver, 1975). These are the mechanisms of the rebuilding process. Rapoport (1969) divides the factors affecting building into several categories, such as socio-cultural factors (basic needs, the relationship of house and settlement, the site and choice, gender, religion forms and cosmos), climatic factors, construction, materials and technology.

In this chapter, socio-cultural issues, shortages, basic needs, skills and economic issues are the building factors that arise from our participation in the building house processes. This discussion reveals the choice of housing design. Understanding these issues can also clarify the process of creating a dwelling conforming to the park regulations. To start the housing project, in 2013 we surveyed the Karen perspectives to understand what they thought about community development to seek out possible ways of development before undertaking the Karen housing project.

6.1.1 The Karen perspectives

The conflict between the villagers and the national park officials has begun again, ever since their houses were burned in 2011. These experiences frame their attitudes and perception. They have become the primary factors influencing Karen life; both the negative and positive perspectives. Undoubtedly, the responsive expressions of the Karen, organisations and state agencies influence not only the housing project, but also other development projects. The Karen hope that these organisations can help

them to improve their quality of life. This has led to the discussion on what developments are possible.

In 2013, I carried out a questionnaire survey to enquire about the community development. Fifty households from both Pongloug and Banggloy villages responded on the questionnaire sheets. These responses were a primary part of finding a way to improve the community. We found that 33 households of the surveyed population needed to repair and rebuild their dwellings and also improve the environment, while 11 households preferred to reconfigure the layout of the land by sharing land with others who did not have land. Additionally, only one household needed to move to build houses on land somewhere else. However, the surveyed population were able to guide the encoding information, providing clues about what they needed for future dwellings. The survey may be determined by the perception, ideas and values, even suffering and poverty. This survey confirmed that the Karen need to rebuild their houses. The following section will discuss the preparatory stage for building houses: how the people prepare building materials.



Fig 6.1 Survey showing what the Karen thought about their dwellings
We carried out the survey with questionnaires to find the needs and possible developments in 2013 before making the proposal to CODI in 2014.

Table 6.1 Survey in 2013

Type of development	Households
Repair and rebuild houses and improve environment	33
Readjust the land and community layout	6
Readjust some part of community layout	5
Relocate from community	1
No idea	5

6.1.2 Kinship groups and social networks: community space

The house is a constituted architectural unit or a social unit associated with the family or kinship structure (Bourdieu, 1973; Fox, 1993; Rapoport, 1969; Waterson, 1990; Gillespie, 2000). Oliver (2003) notes that changes of vernacular house relate to family and cultural factors, such as ancestry, inheritance, age, religion and belief systems. Waterson (1990) believes that the analysis of kinship systems can be clarified by looking at them as house-based systems, and how the house function shapes and identifies the kinship group. In turn, I shall argue that understanding the kinship systems of Banggloy village is to understand the organisational layout of the community. The kinship acts as the operating agent of a system of matrimonial change within the community (Levi-Strauss, 1965: 14). He further states that the primary function of a kinship system is to define categories from which to set up a certain type of marriage regulation.

The primary part presents the representative of each kinship group who still lives in the village. There are three main kinships in Banggloy village: *Mimi, Paleukor* and *Kreajee*. Their descendants also get married to each other and expand the families and kinships; on the other hand, a few Karen get married outside the village – both to Karen and Thai people – because they work outside the village. The kinship system contains an element that manifests among the Karen as the prohibition of incest. Another positive aspect of getting married within the village is that this creates strong relationships and avoids divorce because their parents know each other; thus, family problems can be solved by their parents.

Furthermore, the original kinship groups play a crucial role in Banggloy Karen society. The concept of the kinship of the Banggloy Karen demonstrates the concept of the community-based society. It reveals the relationships in the house-based kinship system. Undeniably, significant relationships have occurred in marriage, family and kinship, offering a valuable clue to the re-housing process. Also, the Karen elders have an influence on community relations and the power of the generations as spiritual leaders.

The house is a type of social structure (Levi-Strauss, 1982) that refers to a group of people associated with the spatial locus (Gillespie, 2000). Thus, a focus on the house can move beyond kinship as the privileged component of the human relationship. Then, the family structure is considered as a support system that helps each other within groups and ties household members together.

The relationship between the individual and groups shows that the Karen build the house or space following the social structures and kinship groups. Getting married across the kinship group in the village contributes to people in the village relating to each other. It becomes a large group of relatives. With regard to a Karen family, it is a

group consisting of parents and their children. During their lifetime, most Karen people are members of two different types of family group: the family into which they were born and the family that they create when they marry. When the Karen marry, the woman remains in her parents' house, and husband moves into her house. However, currently the extended family rarely lives in the same house as the parents. They usually build a new house, separating from the parents after marriage, even if the new house seems temporary or is a small building.

For example, Jorsho Kreajee was evacuated in 1996 and obtained an allocated area to building a house. He shared his area with his son and daughters so that they could build houses (Fig. 6.2). Also, Ladda Kwabu's family was evacuated to Banggloy in 1996, where she obtained a small area that she shared with her sibling (Fig. 6.3). Today, five households live together on the same plot of land. Additionally, they do not only share land. They also share their lifestyle and cultural systems with each other; for example, T-shirts replace traditional clothing in everyday life. Consequently, the house layout reflects the structure of family and kinship. It is integral to and reflects a variety of social values regarding individual and family identity (Werner *et al.,* 1985).

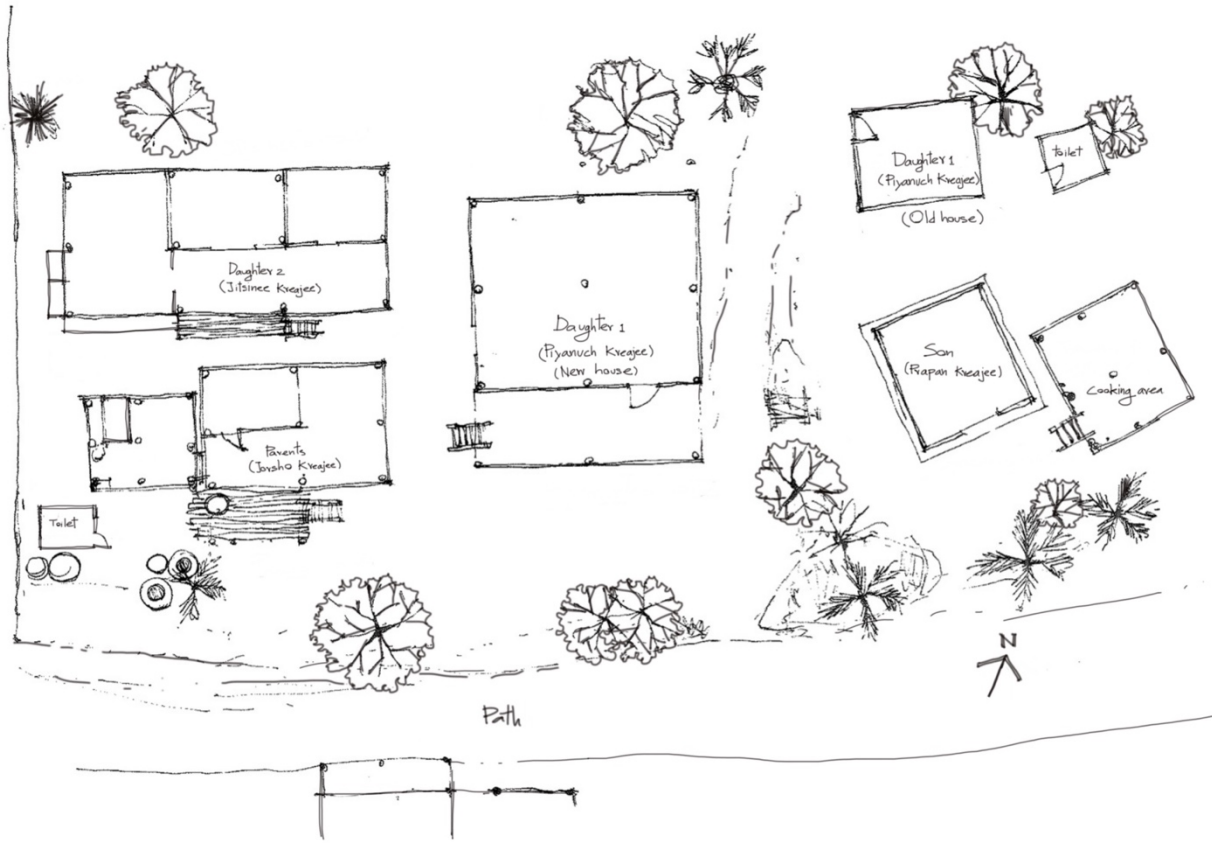


Fig 6.2 Plot of land of Jorsho Kreajee's family.
Jorsho shares the land with his son and daughters to build houses in the limited area of land. This family structure plays an important role in land organisation.

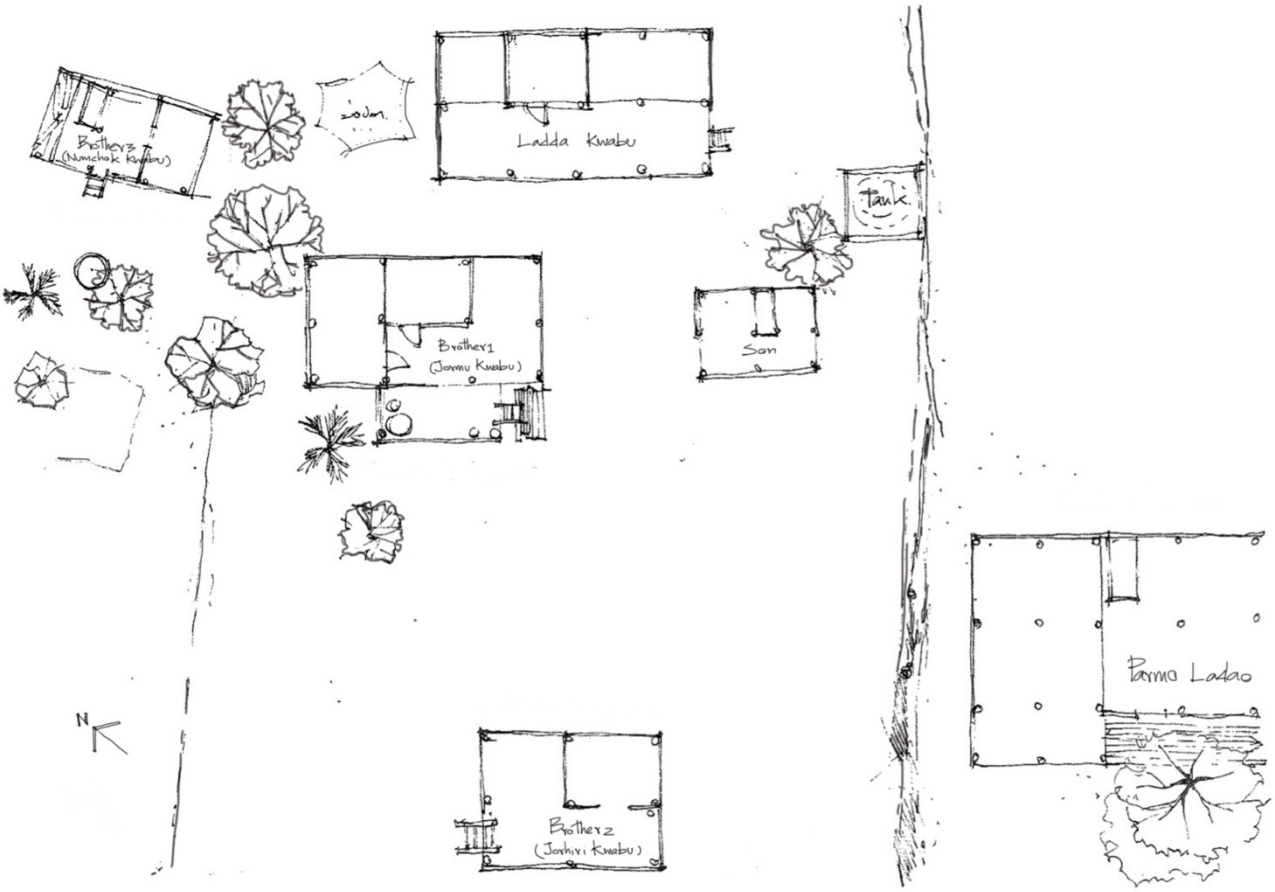


Fig 6.3 Plot of land of Ladda Kwabu's family
Ladda shares the land with her brothers and son to build houses.



The first group is Mimi's kinship. Ko-ee Mimi is a son of Mimi, who lived on the original land. He evacuated to Banggloy village in 1996. In 2000, he decided to return to the original land because the land allocated to him was not appropriate to live on. In 2011, he and his family were moved to the village again by Thai armed forces.

He said that armed park rangers had forced him to leave his home, even though he was partially blind. The rangers did not let him collect his belongings or valuables and took him away in a helicopter. He later found that both his home and barn had been burned down. He had specifically begged the park officials not to destroy his barn. He said that he had not expected such action by officials, as he had lived there since early childhood (Satyaem, 2015).

"What is different between the original land and here?" I asked. *"I love living there [on the original land] more than here. Here it is too hot to live in the summer, and too cold in the winter. The original land is better, not too hot, not too cold".*

Ko-ee Mimi, 106 years old, 25 July 2017



The second group is Paleukor's kinship group. Tongdee Chaya is a great-grandson of Paleukor, who was a founder of Banggloy and Jaipandin. Tongdee was born at the Kasinelor creek, which is a branch of the Lumphachi river. He said that his great-grandfather was Thai and his great-grandmother was Karen. They met each other on the original land and got married and lived there till they died. He explains further below:

My father moved to the original land before WWII. My mother was born at the Mae Num Phachi Wildlife Sanctuary. They met on the original land. […] I was also born at the Mae Num Phachi Wildlife Sanctuary, at my durian garden. My name, Tongdee, was given to me by my great-grandmother. It is a Thai name because my great-grandfather [Paleukor] was Thai. Then, I did not have a surname; we did not know what a surname was or what a birth certificate was. We only had one name.
I have a lot of friends and siblings. They live in the Puragum village, Ratchaburi province and by the Myanmar border. […] In the past, we usually walked across the border to meet each other. Somebody came to buy goods in this village because it seemed easier than going to the Myanmar village. They bought salt and tobacco. We know each other, we are siblings.

Tongdee Chaya, 69 years old, 19 September 2016



The third kinship is Kreajee's. Jorshor is a 70-year-old Karen; he was born two years after WWII on the original land. When he was 30 years old, he moved following their crop rotation in 1992. In 1996, they were moved to this village.

My great-grandfather is named Kreajee and my grandfather is Peuyo. My father's name is Bee. My great-grandfather and great-grandmother were the same age as Paleugor. We moved from Jaipandin to Kamea creek, and then to Limeuku at Banggloy Bon, and then to Wangyaw creek. In the end, we moved to this village. My three children were born at Kamae creek, and the last child was born at Limeuku creek [these creeks are located on the original land].

Jorsho Kreajee, 70 years old, 5 September 2016

Fig 6.4 The three main kinship groups in Banggloy village

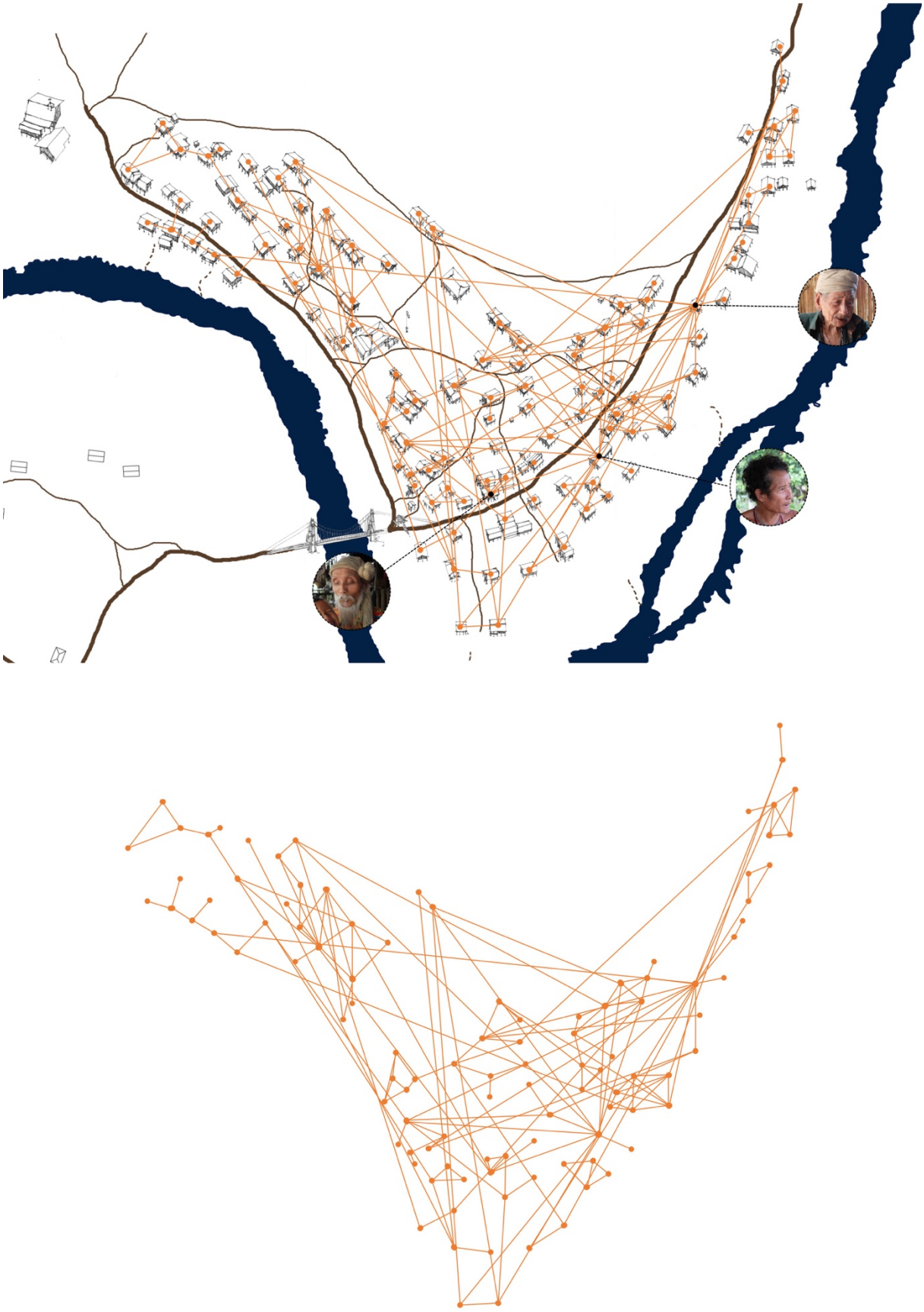


Fig 6.5 A social network of the Banggloy Karen community.
The diagram shows the elderly Karen who are the heads of the kinship groups.

Fig. 6.5 shows a close social network of Banggloy village that ties people together through the kinship system. It is clear that kinship and relatives play a vital role in the house rebuilding process because people within a kinship group usually help each other. For instance, many Karen still practice farming and build houses on relatives' and parents' land. They become a family group, sharing problems and solutions as well as a common understanding, manners and tradition. We have understood how intricate and complex each family and building are, sharing land and commodities; how they sustain their social networks and substantial knowledge, skills and experience.

To sum up, the marriage pattern is the primary determinant of the social relationship of the Karen. Today, the community layout reflects not only limited land, but also relationship of the kinship group in the village. A kinship and marriage system is an institution that indicates the spatial relationship of each household. The form of community layout has evolved from the form of kinship network. Evidently, the form of community layout is dominated by the kinship group and the boundary of the allocated land. However, the strong relationship to allocated land when getting married within a large family group challenges the form of living. For example, newly married people have to adapt themselves to the new environment, land and limitation to resources.

6.2 PREPARING MATERIALS

6.2.1 Building in bamboo, grass and palm leaves

This part aims to describe natural building materials: bamboo, palm leaves and grass. Materials signal the process of appropriation for the Karen; how they identify their homes. Bamboo and thatch reflect the cultural and ecological significance of the dwelling. These materials grow in wet forest conditions, which are far away from the current village. However, bamboo grows very fast; thus, it becomes a multipurpose material for the Karen. It serves as an essential resource for building houses and other hand-made items. It should be borne in mind that cutting bamboo at the wrong time will attract insects. One week after full moon is an appropriate time to cut bamboo, as well as the end of the rainy season and the dry season because the starch content in bamboo is lower than at other times. However, as we build houses the whole year round, sometimes we may face bamboo insect infestation.

By their nature, bamboo poles are hollow, which makes them ideal for the production of structural components (Akinlabi, 2017: 2). Also, they are used for household utilities such as baskets, woven mats or hand-made items. Traditionally, bamboo poles have been used for constructing all kinds of Karen house structures, but today some components have changed and been adapted to use hardwood instead of bamboo. The use of the whole bamboo pole for building houses requires skills to bind, chip and

drill the round poles. For instance, it is used for the roofing structure as a lightweight and elastic material. Regarding flooring, it can be employed used different techniques depending on the function. The bamboo can be cut up into suitable lengths and also split to produce walls and floors. Bamboo poles are split and chopped into several lengths that are bound and nailed together as a unit. The bamboo used for walls and partitions is also the same type as the bamboo for flooring. Additionally, split bamboo poles are woven and fastened together into a woven bamboo wall. Concerning gender roles, the men will cut, chop and split the flattened bamboo flooring and walls, while the women help to strip off the bark from eucalyptus and prepare materials for thatching.

Grass and leaves are traditional roofing materials, although today both are not easy to maintain, due to the lack of source materials. The durability of grass and leaves make them relatively low-budget, but repairs are required every one to three years. Palm leaves are collected and split to attach to the roofing form in successive layers. The supporting structure of bamboo or eucalyptus is simple, but it is required to slope to reduce the risk of leakage (Hazeltine and Bull, 2003). The popular usage of bamboo, palm leaves and grasses from the forest indicates the concept of settlements where these materials are. Therefore, all buildings are designed and constructed based on traditional materials, skills and methods. Also, techniques and methods used in construction are straightforward as the people can build houses by themselves. Bamboo, palm leaves and grass are dynamic materials and suitable alternative for the Karen village regarding economic and ecological advantages. These materials play an important role in traditional building, in that they are regarded as humble materials. Thus, ecological factors are intensely associated with the Karen village. Their houses correspond to the building materials and technological solutions.



Fig 6.6 The Karen chop and split bamboo poles

Flattened bamboo can be used for both flooring and walls. The fast growth aspect of bamboo gives it an advantage for the building of houses as a renewable resource and economical material. The bamboo pole has a unique visual appearance and is harmonious to the environment.



Fig 6.7 Two different types of thatching materials: palm leaf thatch (left) and grass thatch (right)

Palm leaf thatch: tied into a unit that is used for the roof covering. It is laid on the rafters (stage one) and tied to rafters.

Grass thatch: the grass is tied into bundles. The thatching is between 1.5 and 2.5 metres depending on the weaver and utility. A number of grass bundles are tied to the purlins. The layer of bundles is laid to overlap the layer. The string is pulled and fixes the grass in place.

6.2.2 Building with industrial materials

The lack of materials forces people to search for a different option. One option is to buy materials from the town. At our first meeting with the park officials in 2014, we informed them that this project needed to purchase materials from the town, such as wood, thatch and galvanised metal sheets. Then, we would use bamboo in the forest, but at that time, park officials did not allow us to use galvanised metal sheets. However, in 2017 the Karen negotiated with the park officials, and then they allowed us to use galvanised metal sheets and fibre cement roof sheets.

Industrial materials are a priority of choice that profoundly change building techniques and process. The most popular roofing materials are galvanised metal sheets, as they are affordable and durable and require less maintenance. The demand for roofing tiles is lower, because they require a timber roof structure and are high cost. These materials help the Karen overcome the regular maintenance of building. In terms of concrete footings, these are allowed to be used in all houses in the projects to create durability. However, the use of these materials is still limited by economic factors. It should be borne in mind that the idea of using industrial materials to build houses came from participants who were involved in the meetings. It concerns collaboration to achieve collective needs. Then, we set out a rule for collective use. In turn, if an individual needs some materials that are different from the rest of the group, they have to provide them themselves.



Fig 6.8 A craftsman is roofing a house by using galvanised metal sheets

6.2.3 Collecting and transporting the building materials

The national park regulations and limited budget force the Karen to think how to find materials for building a certain number of houses and how to use them effectively. The Karen collect necessary materials from around the village and in the forest, such as bamboo, grass, leaves, sand and small rocks. They also buy some kinds of industrial materials from the town, such as fibre cement roof sheets and galvanised metal sheets as well as concrete blocks, which need permission from the national park. Some Karen, however, smuggle a small number of industrial materials from the town to the village, spending a long time keeping them away from official eyes. Dokmai Chaya and Ekachai Jaroensook mention this circumstance.

> *"[…] If we need to buy galvanised metal sheets, we have to smuggle it from the town, around two–five sheets per time. If we buy one–two sheets, they (park officials) allow us to bring them into the village. If we bring many sheets, they do not allow this. […] Also, then we usually spend time to collect it, around one year. However, it depends on each household as well […]",* Dokmai said.
> "*Did the national park officials used to arrest you or forbid you from bringing it into the national park*?" I asked.
> *"No, because we hid it away from their eyes. For bamboo, we have to spend time, around eight days at least. to cut bamboo, around 80 poles of bamboo in the forest. I generally spend two days' time, 20 poles of bamboos per time",* he said.
>
> Dokmai Chaya, 37 years old, 3 August 2016

> Ekachai worked outside the village. He returned to the village in September. He also bought 60 galvanised metal sheets from the town.
> He spent 6,240 baht for 60 sheets. On a car [Jaroen's car], they covered the sheets with a piece of grey cloth and put a lot of stuff on the galvanised metal sheets. I sat in the front seat with Jaroen [the driver]. When we drove past the national park guardhouse, the officials did not check and let us into the national park. At that time I felt, "*We did it*".
>
> Field notes, 6 September 2016

Each household has its own plans and strategies to collect building materials. Thus, systems to collect materials are planned in different ways, which may include individual and collective management. This can be seen in the statement below.

> *[…] A lot of materials are stored under my father's house, including bamboo. I have prepared bamboo poles since the beginning of the housing project in 2015. […] My father sometimes comes to help me to prepare the materials, for example, removing eucalyptus bark off […] We gather and use the materials together.*
>
> Jitsinee Kraejee, 32 years old, 28 July 2016

> *[…] Since I knew that CODI would come to help us to build houses, I started to collect hardwood [timber] to build the roof structure […] I have also already planned to change the thatched roof if it is rotten.*
>
> Parot Jan-upatam, 38 years old, 19 August 2016

They act in a similar way if they need to use some industrial materials to build houses in the national park. Moreover, conveying the building materials from the forest to the village is also a complicated task. For example, they have to spend at least two days to transport ten bamboo poles from the forest to the village. A house uses approximately 80–100 bamboo poles. Parot Jan-upatam mentions the problem of searching for and cutting bamboo below.

> *It [takes] around 80 poles of bamboo to create walls and floors. I need seven people to take the bamboos down to the river and take it to the village. Currently, good poles of bamboo are hard to find in the forest, because some are crooked bamboos, we have to select good ones. […] We have to spend more than one day to search for and cut bamboos […] The reason is that it is complicated to search for [them] and convey [them].*
>
> Parot Jan-upatam, 38 years old, 19 August 2016

A combination of two materials provides another option and reduces the concern of the park officials. However, this challenges their traditional form of dwelling, which may no longer be possible to sustain. This is a crucial issue for future development and also reflects the primary change in the village. Thus, the Karen's houses are shaped by their surroundings. The houses' materials and details are witnessed by the officials and considered according to perceptions associated with the regulations. This process leads to the identification of a relationship between the Karen and the environment.

Table 6.2 Approval for Building Materials for Housing Project between 2014–2017

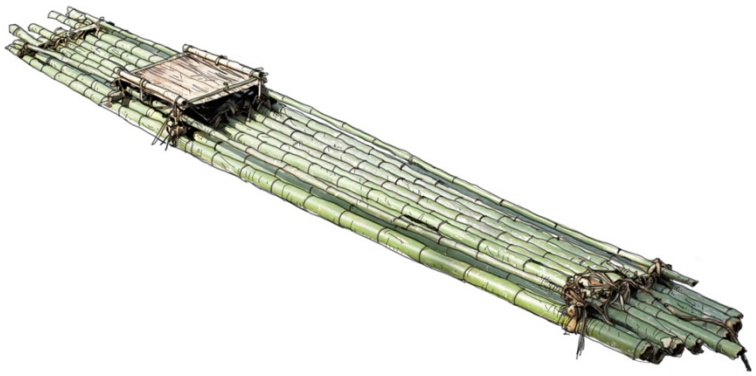
Materials	Allowed or not allowed		Source
	2014	2017	
Bamboo	•	•	Forest
Eucalyptus	•	•	Town
Grass thatch and leaves	•	•	
Hardwood	•	•	
Concrete footing	•	•	
Galvanised metal sheets	×	•	
Fibre cement roof sheets	×	•	
Concrete blocks	×	×	

• Allow
× Not allow



Fig 6.9 The truck conveys building materials from the town to the village

On 18 September 2016, the eucalyptus and thatch were trucked to the village. This was the last time of transporting materials to build houses in Phase 2. The materials were bought in the town and then conveyed to the head of the bridge of the village. The Karen committees would tell households in Phase 2 to take the materials. After checking the materials, the Karen (the occupants) would carry the materials by hand to their houses. The housing project had to pay £200 per transportation. This was costly; currently, they have spent £2,000 for the cost of transportation. For Phase 3, they are thinking about how to reduce the cost of transportation. The committee suggests that each household should employ reused materials as far as they can.



Poles of bamboo are cut to build a raft (around ten poles per raft). The Karen will float a raft from the bamboo forest to the village, spending around half a day doing so.



After arriving at the village, they will separate the bamboo poles and take them to the house or construction site.



The bamboo poles will be cut, chopped or split into different sizes depending on what kind of house element and structure that they need.

Fig 6.10 Process to convey bamboo poles from the forest to the house
This reflects the common resources so that they interact harmoniously.



Fig 6.11 Collecting and buying industrial materials

The Karen usually buy a small number of their building materials from the town because of their limited budget and the need to obtain permission from the park officials.
Left: Looknam buys galvanised metal sheets and keeps them in her house.
Right: Numchok Jaroensook buys ten pieces of fibre cement roof sheets in the town.



Fig 6.12 Nuts and bolts

Nuts and bolts are a key tool to use tighten the house structure together, particularly concrete footings, columns and beams.

6.3 BUILDING AND MODIFYING HOUSE STRUCTURE

The house structure can be categorised into three parts. Firstly, the lower structure such as columns and footings. Secondly, the middle part of structure such as the walls and floor structure. Finally, the roof structure.

6.3.1 The lower structure

The lower part refers to the ground floor structure, column and footing structure. The column is a key structure, with a round section around 10–20 cm in diameter supporting the roof and floor structure. The Karen request the sturdy columns and concrete footings to replace the weaker bamboo posts and small wooden columns. This solution has been solved by using stronger wooden columns and concrete footings. The Karen join the wooden column and concrete footing together. Some households cut out a part of a column that has become rotten and change it for concrete footings. Concrete footings are normally employed to build stronger columns and to protect against termites after rebuilding. Some households create a cement ground floor to save the cost of construction in the long term.



Fig 6.13 Doimooyaw Pugad creates a concrete foundation to receive and protect columns



Fig 6.14 The process of changing the footings of Jorsho Kreajee's house in 2016

A team of craftsmen started by measuring the level of the column and checking where they should cut them. After they achieved the level, they cut the column by using a saw. After that, they dug and took a cut column out. The next process was to mortise the column to fit the new footing together. They used simple tools, such as a saw and knives. They spent around an hour on each column. Joshor said that this house was built around 15 years ago. The columns were embedded in the ground and were destroyed by termites; that was why the villagers need strong columns first and requested concrete footings.

6.3.2 The wall and floor structure

The traditional wall may be categorised into three types: the horizontal chopped bamboo pattern, the vertical chopped bamboo pattern, and the woven bamboo wall. The vertical and horizontal bamboo patterns are often found in the village, while a few houses create the woven bamboo wall after spending much time on it and using their strong weaving skill. All wall types make good ventilation available; on the other hand, the drawback is their short lifetime, leading to changes in materials often. However, today the Karen still use bamboo to create floor and wall panels even when the house structure is modified.

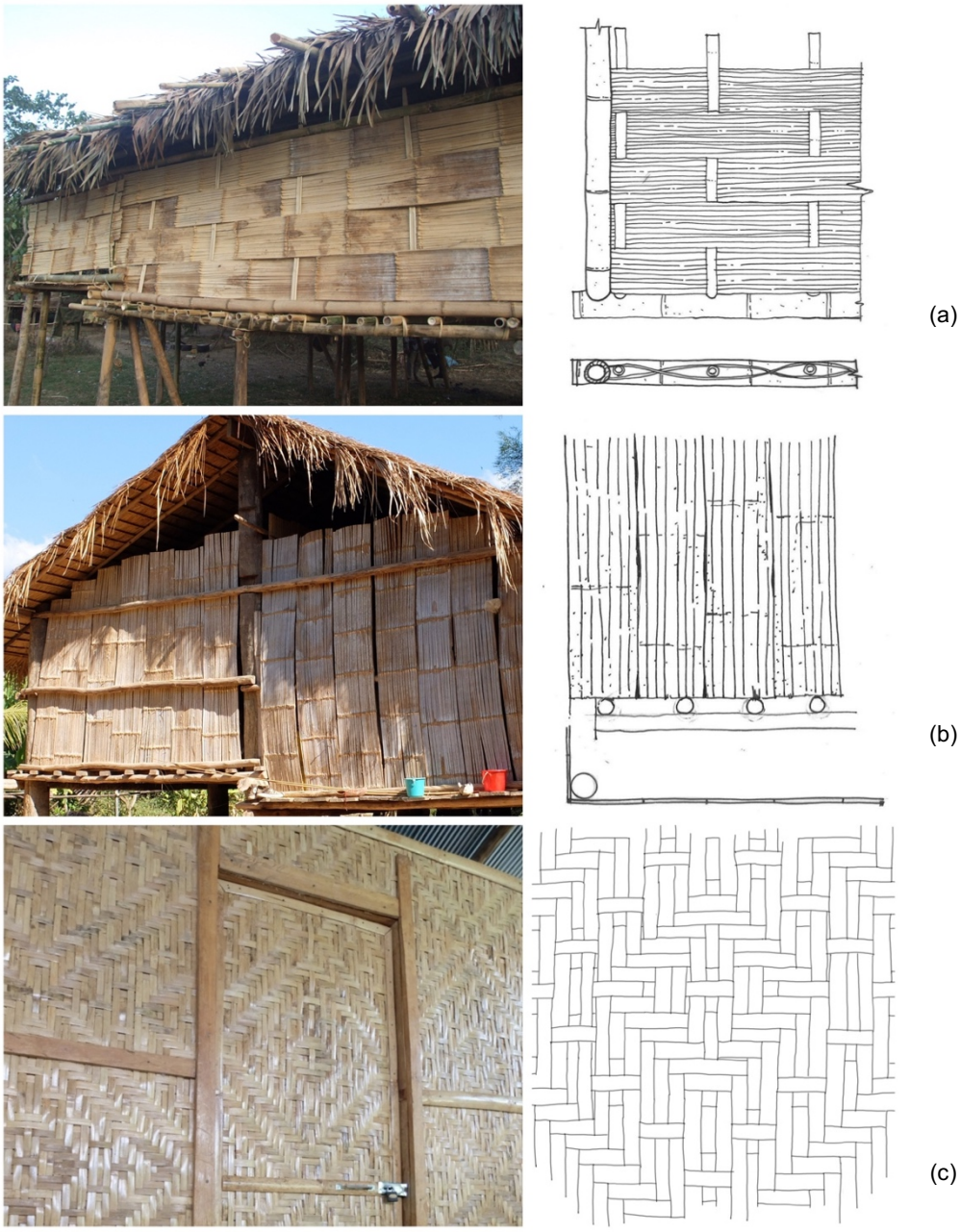
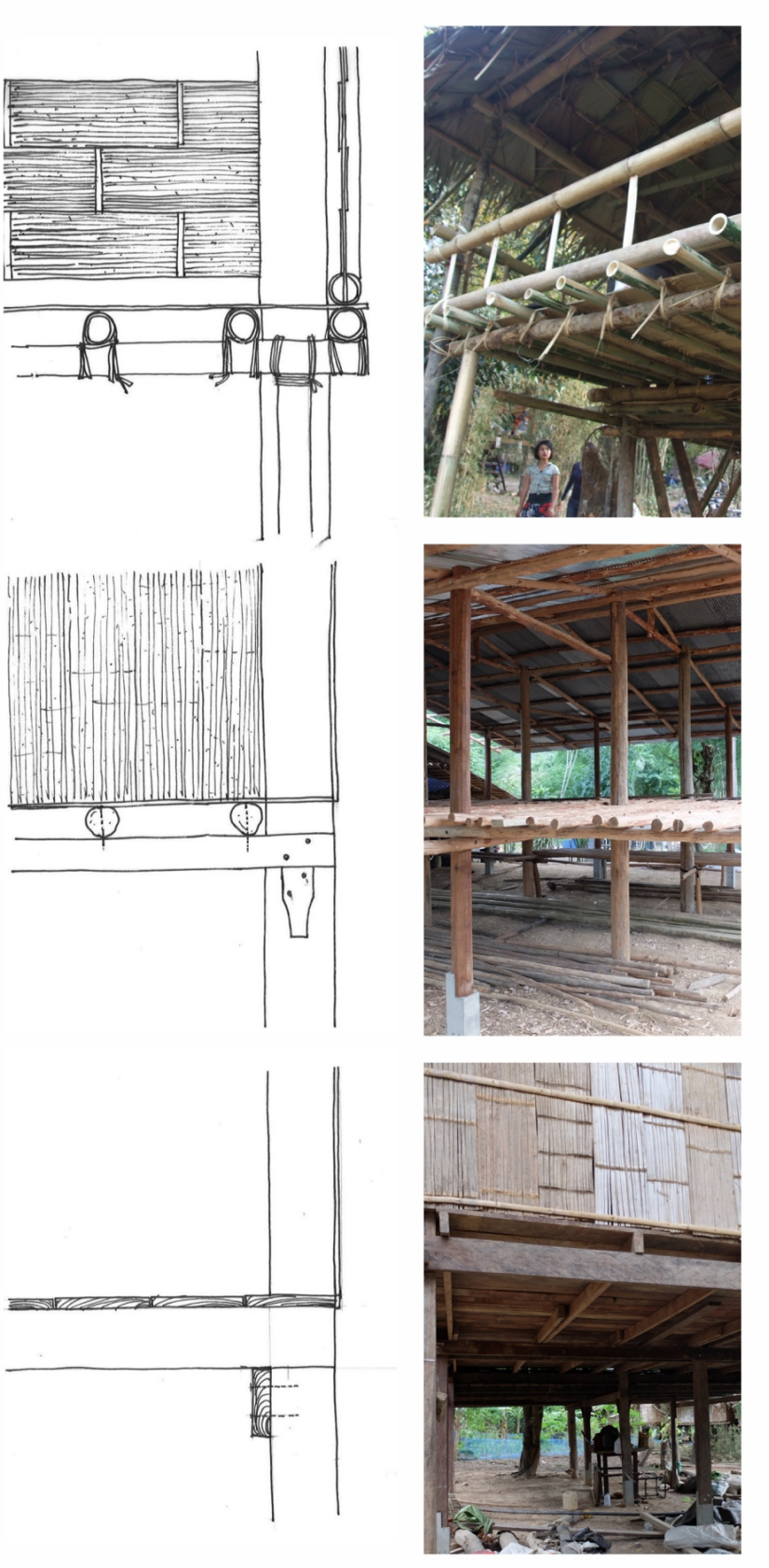


Fig 6.15 The characteristics of bamboo walls in the village.
The horizontal style (a), the vertical style (b) and woven bamboo wall (c)



In terms of the floor structure, it is similar to the roof structure, categorised into two types: the traditional structure and the modified structure.

1. Traditional floor structure

Created with bamboo joists and beams without nails. The beams and joists are bound together with rattan, and then the beams are tied to the columns, supported by bamboo supports.

2. Modified floor structure

Bolted connections and nails are used in the modified structure to connect beams and columns without bamboo post supporters. Eucalyptus wood joists and beams are fastened by using nails, and each joist is 0.30 m apart. However, both traditional and semi-traditional structures are employed to support the bamboo floor.

The floor structure is a timber frame, used particularly to support the hard wooden floor, which is found in few houses due to the high cost of the structure. Some households spend a long time to collect hardwood from the forest (smuggling the wood).

Fig 6.16 The floor structure: traditional floor structure and modified floor structure

6.3.3 The roof structure

The roof structure can be categorised into two styles: traditional and modified structure. Firstly, the traditional gable roof built from palm leaves (*ta-kau* leaves) or cogon grass (*ya-kha*) with a slope sufficient for proper drainage (approximately 35–45 degrees). Additionally, the eaves on two sides provide protection from sunlight and rain, while the area underneath the front gable roof usually opens, providing air circulation. These reveal the traditional structure, built only from bamboo, roofed with palm leaf thatch or grass thatch. This requires a bonding technique between rafter, ridge and king post. Secondly, the modified structure is defined as mixing together traditional and contemporary building techniques. It also refers to timber frame buildings that support fibre cement roof sheets. The rafter, roof beam, tie beam and ridge are built from eucalyptus wood and hardwood and then roofed with thatch or galvanised metal sheets. The slope of the roof structure is associated with the length of the fibre cement roof sheets and galvanised metal sheets that are fitted on the slope without gaps. Although this roof structure is stronger and does not have a complex frame, it does, however, have the highest cost. These indicate that the modified roof structure is more durable and easier to handle, as are all roof materials with nails, and it does not require regular maintenance. From the Karen's point of view, galvanised metal sheets are the most appropriate roofing material due to affordability and lower maintenance required. They are not concerned that it will create heat inside the house or that it comes from industrial sources, because the survival of the building means that they survive themselves.



Fig 6.17 Traditional roof structure (a) and modified roof structure (b, c)

As mentioned, the changes of house elements can be categorised into roofs, walls, floor structure and columns. Most modified house features were formed after the re-housing project; in turn, we rarely found the traditional bamboo house in the village after rebuilding the houses. Building materials and technology influenced the re-housing process, bringing out new ways to sustain the dwellings. Accessible materials and available technologies helped to maintain the dwellings. As Asquith (2006) mentioned, the vernacular house is not a static building form reacting to change and adaptation. Industrial materials have become the primary materials to sustain the building and to replace some natural materials. It is the basis of a modified vernacular building. The changes indicated are appropriate for the future requirements, needs and expectations.

Consequently, materials and structure are the tangible indications describing the intangible features of meaningful change processes. An expression of the materials and structure play a communicative role embodying and conveying meaning within the Karen group. They modify the structure by combining industrial and local materials together. They also duplicate the forms and styles of each other. Building materials demonstrate how the Karen house corresponds to the ideas and conceptions of social and cultural adaptation. This approach identifies the direct expression of society that the Karen house forms and structure are; the outcome of limited choices among the existing possibilities. Within the regulations, the Karen conserve and adapt building structures and materials to meet their needs, and the modified house form also influences the traditional style.

6.4 STORIES OF BUILDING HOUSES

6.4.1 The community house: the first building of the project

> In the meeting at the village in October 2014, there were CODI, PTLF and NGO staff and the Karen that attended the meeting. We talked about project management, the committee and funding. At the end of the meeting, we agreed that we would build a community house. It was the first building of the project. So, we should design it first together. I stuck a piece of paper on the board at the meeting. We discussed the requirements and form of the building. The Karen leaders required a 150-seat area for the meeting. The form was a gable. The building materials were natural. I sketched simple forms on the board and asked [people] about them. In the end, they agreed with the draft of the design. I noted it and kept the sketch. In December 2014, I took the drawing and arrived at Newcastle. I developed the sketch and drew it on the AutoCAD program. A couple of months after I arrived in Newcastle, I drew it and emailed it to Montha, my colleague. Then she printed it and handed it to the Karen.
>
> Field notes, October 2014

A community house is located in the centre of the village. In 2014, the first agreement was made that we would use natural materials to create the building. The main structure was built from hardwood and roofed with palm leaves. In late 2014, the materials were already prepared for building. The purpose of the building is to serve various community activities; for example, it is a place for traditional celebrations, a place for public meetings, a place where the Karen meet each other socially and a place for guests to stay overnight. In the week of building, my colleague texted me that the Karen and a CODI staff member and urban poor networks came as volunteers to join in building the community house together (Fig. 6.18). The core actors were the Karen; the outsiders helped to construct the key structure for a week and then they left. The Karen built the remaining components together. This was a lesson that motivated the Karen to realise their roles in the building process, such as thatching roofs and creating bamboo floors. It was a starting point to learn about building techniques and methods. The building was completed in July 2015. The first activity after completing the building was the wrist-tying ceremony. Additionally, general practice, they use the community house as a meeting space every first week of the month.

> In December 2015, I revisited the village for fieldwork. I stayed in the community house where we carried out meetings and workshops. Some parts of the floor were rotten; the roof had leaked. I found that some parts of the palm leaf roof and bamboo floor were rotten. *“How can we solve these problems?”* I asked the Karen leaders. *“We need to change the roofing materials. I will ask for funding from the local government agency”,* Niran, a Karen leader, said. I understand that natural materials are hard to find and take to the village. They require permanent materials to rebuild a strong building. In January 2016, Montha asked me to revise the community house drawing to offer the local government agency.
>
> Field notes, January 2016



Fig 6.18 The community house building process in 2015

The first design was agreed by the national park officials and the Karen committee, concentrating on using natural materials. The structure was built from hardwood and roofed with palm leaf thatch. This was the first building of the project, when participants were working out the processes of collective building and management.

In April 2016, I returned to Newcastle. I revised the community house drawing following comments from the Karen leaders; I changed the roof structure and materials. I drew the roof structure with a specification of fibre cement sheets and a timber structure and hoped they would build it (Fig. 6.19). Then I emailed it to my colleague, and she handed the drawing to the Karen. The drawing was proposed to the provincial committee to be considered for funding. In fact, the new drawing revised the materials from a palm leaf roof to fibre cement roof sheets to create a stronger building. However, in the final decision, the Karen committee agreed to change the drawing from palm leaf roof to green metal sheets. The reason is that metal sheet is a stronger material than fibre cement roof sheet and does not require the regular maintenance. The drawback is that it has a higher cost of construction. However, we respect their decision and ideas, although I sometimes feel it seems a strange material that is not assimilated into their culture.

In June 2016, they obtained funding and started rebuilding the roof structure to support the metal sheets. They spent a month to finish the building (Fig. 6.20). I returned to the village in August 2016. *“The building was completed. Now we did only the roof, and it has been done”,* Plu Jeebong, a Karen leader, said. But I did not feel like that. I thought that some elements were not finished but they said that the budget was used up.

In December 2016, they decorated the building for the rice-eating ceremony after harvesting. It was utilised for a meeting and playing Karen music at night to tell the story of the rice ceremony. This phenomenon was created through a cultural activity linking people together to fulfil the meaning of the community. In this process, the community house plays an important role as the centre of the village, promoting the Karen culture and displaying the rich inheritance of culture.

The design decisions are obviously inspired by cultural, social, political and economic factors. The changes respond to the requirements, which are influenced by many issues: function, implementation, durability and consensus. The highlighting of the problems and solutions of the design show that place meaning and identity shape and are shaped over time, not only by individual people, but also by communal identities (Norris-Baker and Scheidt, 2005). The building contains a social-symbolic basis of identity, which belongs to the place. It also reveals the needs and adaptations required to support the cultural values that have given me an understanding of the constraints of the context.

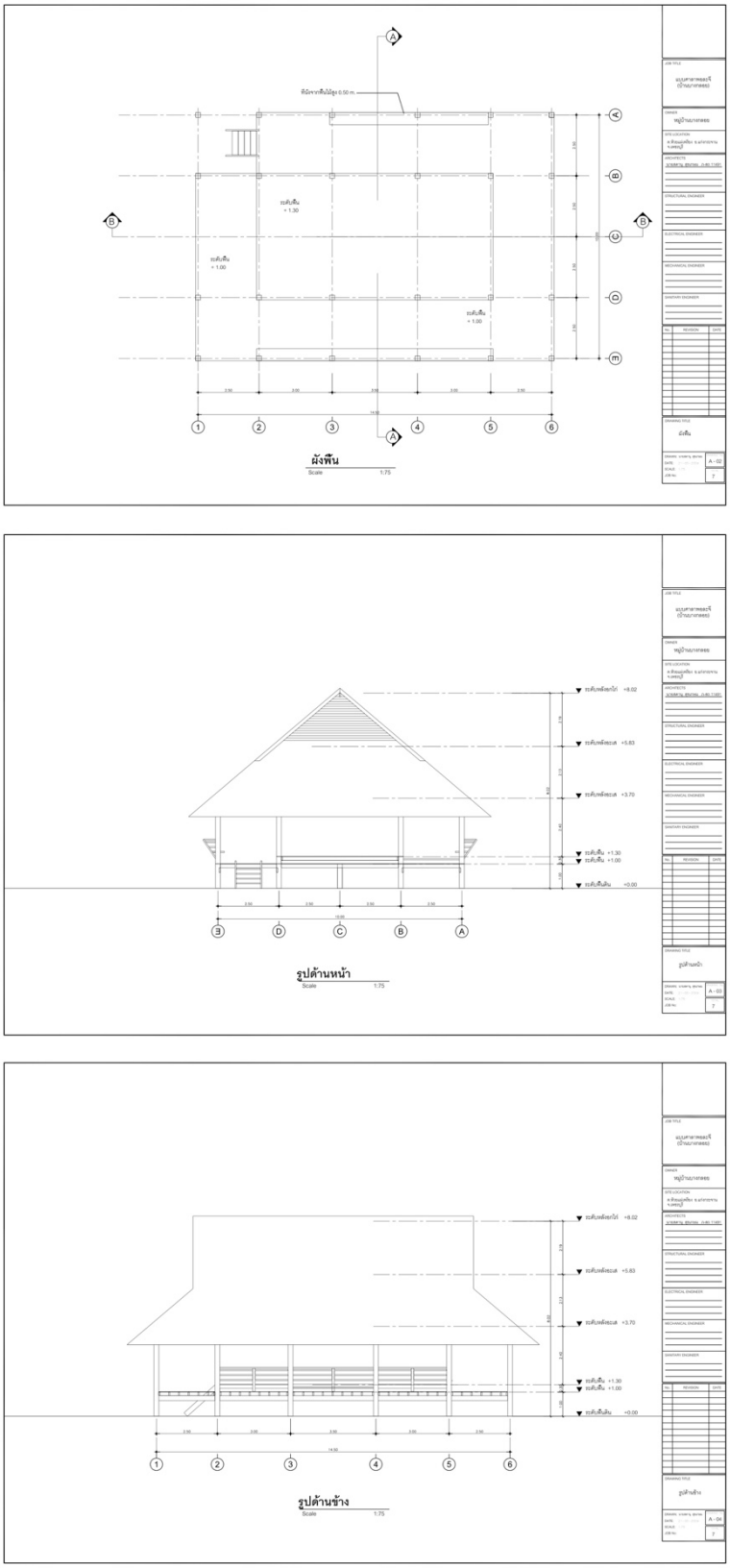


Fig 6.19 Final revised drawing of the community house in 2016
The plan, front elevation and side elevation of the building



Fig 6.20 Rebuilding the roof of the community house in 2016
The roof structure was changed to support the metal sheets. The roofing material was changed from palm leaf thatch to green metal sheets.

6.4.2 The temporary house

Physically, a temporary house is built for temporary living and constructed from reused or recycled materials. Many households built temporary buildings to live in while building their permanent houses. Their advantage is that construction methods are simple and all dwellers can produce temporary space themselves by using materials from the demolished house or those available around the village.

However, the temporary area is a process of re-housing that divides into two cases. Firstly, the household members live in a temporary space for a while during the building of a new house. Secondly, the household members live in a temporary space because they do not have enough budget to build a new house. It will be built when they have sufficient budget to afford the materials. Thus, the process of home can be understood as a set of dynamic transactions involving people, place and time. In addition, the temporary building conditions may activate the building processes driven by the needs and ambitions of dwellers. Watkins and Hosier (2005: 199) note that home is a process, home is where we are and home is where the family is. These sentences indicate the importance of shelter, the display of valued belongings, a place for self-expression, the locus of activity. The concept of home is therefore viewed as a process influenced by economic factors.

As such, for these households, a temporary house can be defined as the space of saving budget in a compact area and waiting for an appropriate time to build new houses. Simple materials are employed to build the temporary house, such as used galvanised metal sheets, reused wood and bamboo. A temporary house is also semi-permanent in some cases. It contains temporal elements and qualities (Werner *et al.,* 1985) reflecting dynamic flow that continues the relationship between people, spaces and environments. It further supports the idea of Werner *et al.* (1985) that home is a place of continuity across the past, present and future at the level of the individual and the family, and also supports the idea of Dovey (1985): the home as connectedness.

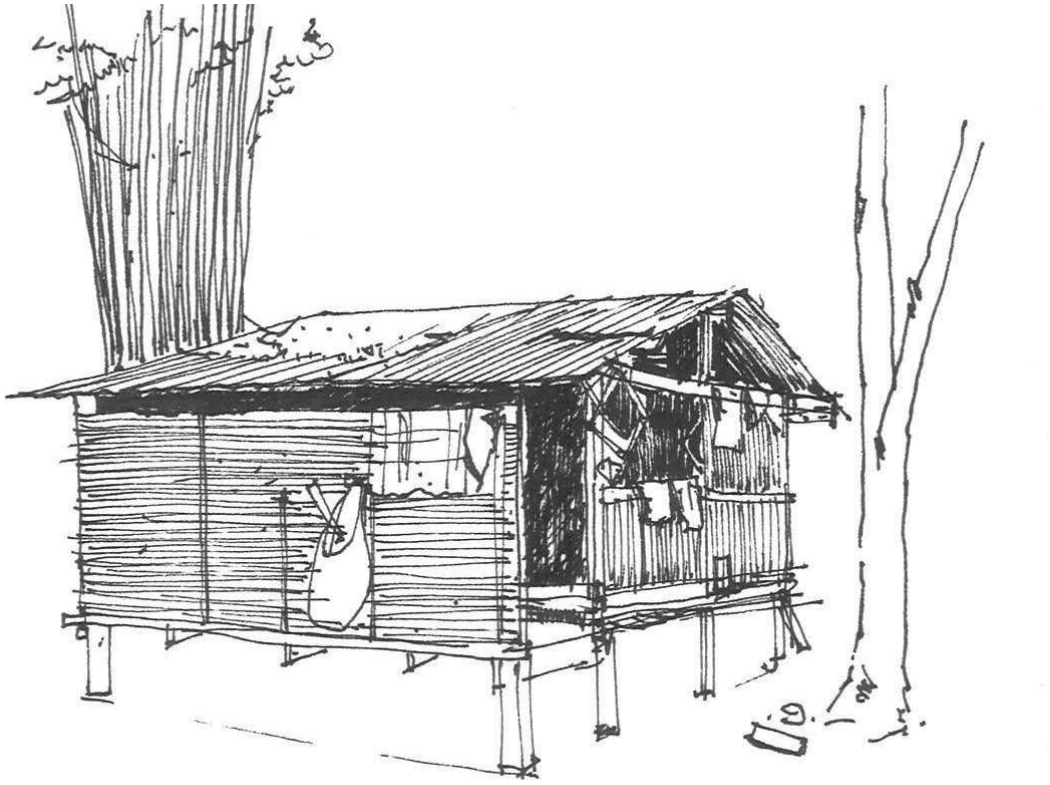


Fig 6.21 Temporary house of Thanapol Supangkul's family



Fig 6.22 Temporary space of Sombat Chaya

While demolishing the old house, Sombat built a simple temporary space to store his belongings and to sleep at night. It also became a sleeping place for his grandchildren at noon. He stayed there for a month while building his new house. It was roofed with black plastic.

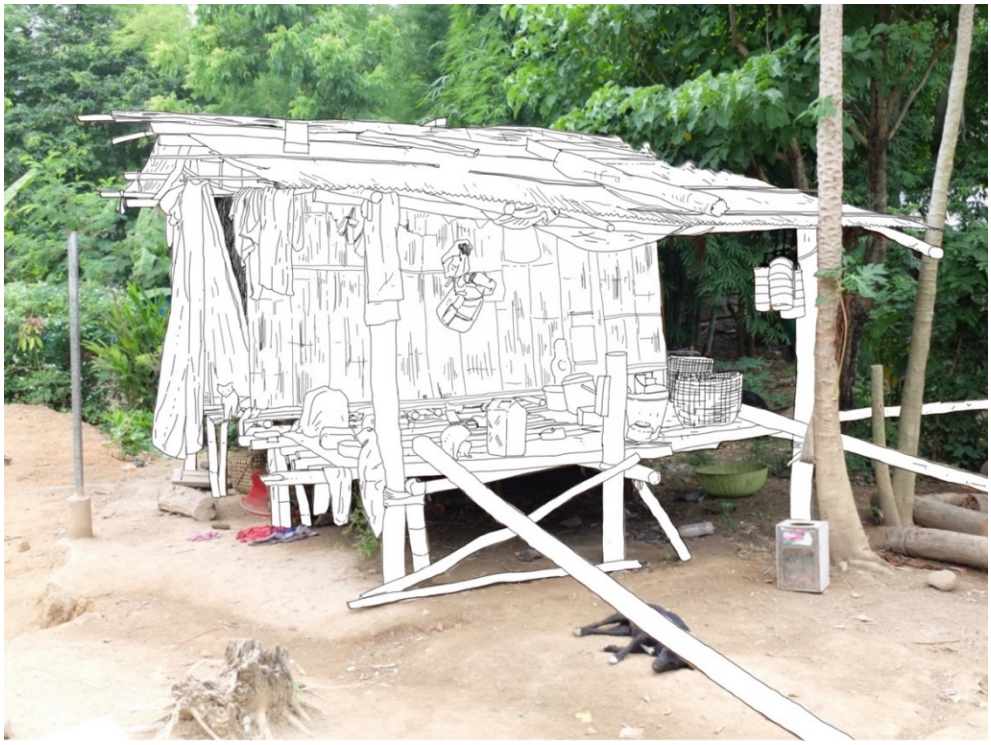


Fig 6.23 Temporary house of Supasa Chaya's family

Supasa lived in a small temporary house for two months. It was around 12 m^2. The roof was made of galvanised metal sheets. The wall and floor were bamboo. These items came from the used materials of the old house.

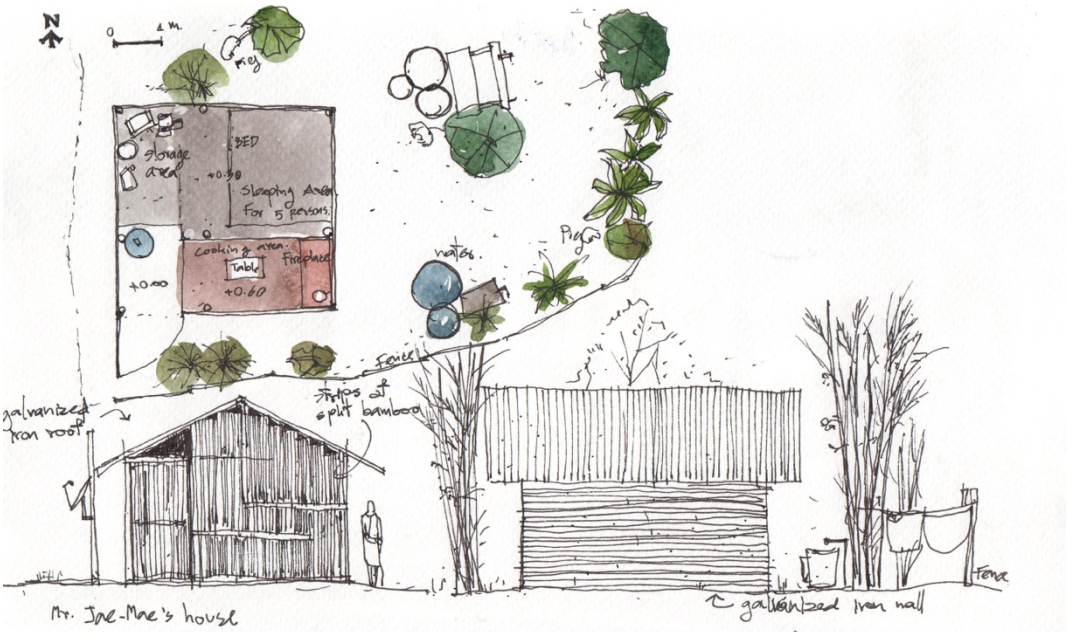


Fig 6.24 Jaemae's temporary house

Jaemae's house collapsed, and then he utilised reused materials to build a temporary house. Today, he does not know when his new house will be built, because of the lack of budget. As can be seen in the drawing, the house is divided into sleeping, cooking and storage areas. The interior of the house is hot because it is built from galvanised metal sheets.

6.4.3 Time changed, ideas changed

On Wednesday morning, Jorjuemi was digging the holes to lay his house's foundation. Four craftsmen were fitting concrete footings and wooden columns together to create strong columns. His wife was cutting eucalyptus bark to build rafters and the roof structure.

In the workshop in December 2015, his drawing indicated that he needed to build a stilt house and gable hip house consisting of a cooking area, two rooms, storage, a living space and verandah. He changed his mind; he then wanted to build a gable house consisting of a room and multipurpose area, without the area underneath the house.

Why do not you need to build a stilt house? I asked.
"I changed the design because I need to save materials. We could not find materials [bamboo] around here [in the village]. We have to buy it and we have not enough money […] Bamboos are hard to find. We need bamboo, we have to spend time, 2–4 days in the forest to find and cut it, and then bring it down on the river by building the rafts. One person could take around ten bamboos a time, but if we buy it, it is easier, but we have to spend approximately 40 baht per pole. I need to build a concrete floor rather than a bamboo floor", Jorjuemi said.

Jorjuemi Jaroensook, 57 years old, 27 July 2016



Fig 6.25 Comparison of Jorjuemi's ideas between 2015 (left: his sketch) and 2016 (right: my sketch)

One of the most interesting features arising out of the work is that the rebuilding and building of houses is creating a variety of house forms. Although the variety is expressed through the drawing in the workshops, we are not certain to be built after the workshop when the time comes. Many households changed and adapted their

design from the workshops, particularly roof forms and house plans, to fit into their current situation before building houses. Participation made us realise what we desired and prepared for building, but this does not mean that we must do what we planned in the workshops, because sometimes the future and life are uncertain. Thus, the action plan should be flexible, adaptable and changeable.

The budget and the building materials will restrict the design and type of building before people decide to build houses. Many households lack the budget to build or rebuild the house following their design from the workshops. We therefore adapt the design to fit into the budget by reducing the cost of the building, while some others altered the design to follow traditional beliefs and to adapt to the construction site. Consequently, when times changed, design ideas often changed also. The change in house form and plan relate to the limitations of the budget and building materials as well as cultural beliefs.



Fig 6.26 A new house for Jorjuemi's daughter

Jorjuemi spent around a year to finish the house because he needed to build a concrete floor. That required time to collect materials. The floor is concrete, and the wall is created from concrete blocks and bamboos. The roof is grass thatch. The interior of the building is divided into two areas: a room for his daughter and a multipurpose area.

On the bamboo wall, Jorjuemi's daughter hangs images of Jesus on one side; on another side she hangs family photos. In the centre house space, she hangs a hammock between columns. She sits on the floor and I talk to her.

Field notes, July 2016

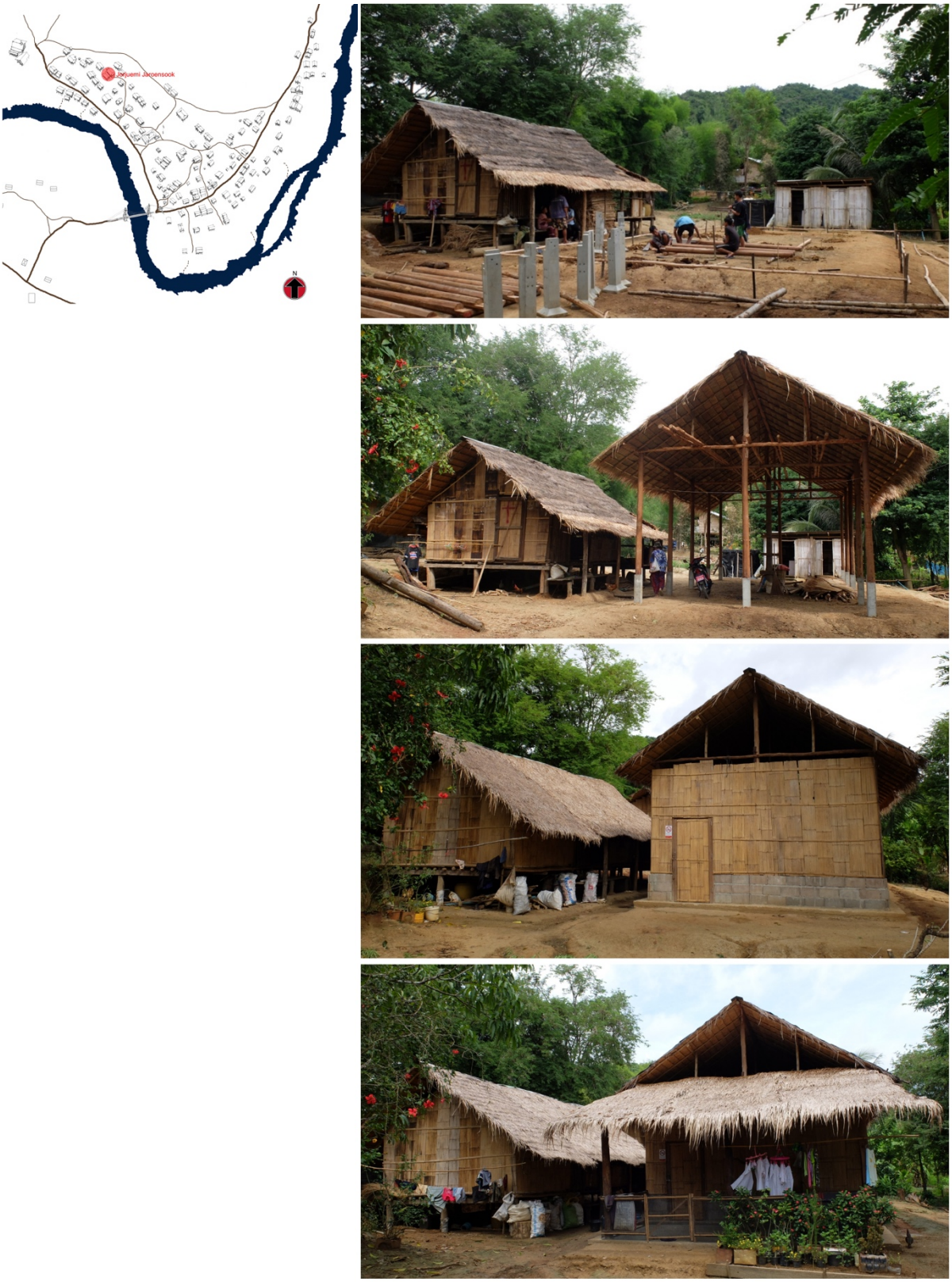


Fig 6.27 The old (left) and new (right) houses of Jorjuemi's family

In July 2016, Jorjuemi started building a new house alongside the old house. He spent a year to complete the new house. It is for his daughter who came back to live with him after she was away from home for nine years to work outside the village. Furthermore, he also extended the old house space. As can be seen in the figure, the size of the old house has increased.

6.4.4 The sequence of transformation: Supasa Chaya's family

Transformation and extension of existing houses are ideally suited to people who have unstable incomes and many household members. The re-housing process is clear that they requested more space caused by increases in the number of household members. Generally, each family usually has between three and seven children, which is influential in the need for housing spaces. This is a major generator of decisions to extend or transform the house.

For instance, let us look at the transforming or rebuilding of Supasa Chaya's house between 2014 and 2016. Six people lived in the house, consisting of her mother, husband, daughters and son. Supasa attended the workshop in December 2015, and she designed a new house consisting of two rooms and living, cooking and washing areas. On the other hand, the old house was built four years ago, divided into three main areas: multipurpose, sleeping and cooking areas. The key structure of the old house was bamboo, with small wooden columns, causing the weak structure. While demolishing the house, they built a small temporary house to stay in for a couple months. This process allows households to make adjustments to their house and express ideas to meet their needs with a limited budget and conform to the national park regulations. Inevitably, the new house was built to replace the old one to support the most common daily activities, such as sleeping, doing homework or eating.

> 28 July 2016
> Vichai Vormaor, 32 years old, lived in the old house with five people: Supasa [wife], Pihi [mother-in-law], and three children. Now they are designing and building a new house. The sleeping area was at the back of the house, while next to the sleeping area was a cooking area. The floor of the cooking area was lower than the multipurpose area floor by around 30 cm. The sleeping area floor was higher than the multipurpose area floor by around 30 cm. The main material of the old house was bamboo; just the columns were small wooden ones. The condition of the house was very poor and rotten. Currently, [the family] have been living in a small temporary house for two months because they demolished all of the old house. Then, they moved all their stuff to a 12 m^2 house [a temporary house]. I could not imagine how they slept in this house.
>
> [While talking to Vichai and Supasa, I recorded our conversation by using an electronic sound recorder and also sketched the new house. We used the drawing as a tool to discuss.]
>
> Field notes, 28 July 2016

17 August 2016
I revisited his house in mid-August. Vichai was building the washing area. His wife invited me to see a new house. A small verandah is the main entrance, covered by fibre cement roof sheets. The large multipurpose or living space is at the centre of the house. It is for guests because they have many relatives.
"*How can you get bamboos so quick?*" I asked. *"I collected them before building this house",* Supasa responded.

The east side of the living space is the cooking area. The centre of the cooking area is the eating space. Vichai is building a verandah for washing and drying kitchenware, such as bowls, dishes or pots.

The north side of the living area has two rooms; one is for the parents, another is for the children. The floor of both rooms is lined with hardwood [planks]. The tie beam is high, around two metres. It is suitable to hang things on, or tie a hammock or bassinet. The height relates to his body scale.

The floor is divided into four patterns. For instance, bamboo poles are for the verandah; chopped bamboos are for the living area, split bamboo flooring is for the kitchen, and hardwoods are for other rooms.

Field notes, 17 August 2016



Fig 6.28 Supasa and Vichai's house in 2013



Fig 6.29 Supasa's drawing from the workshop

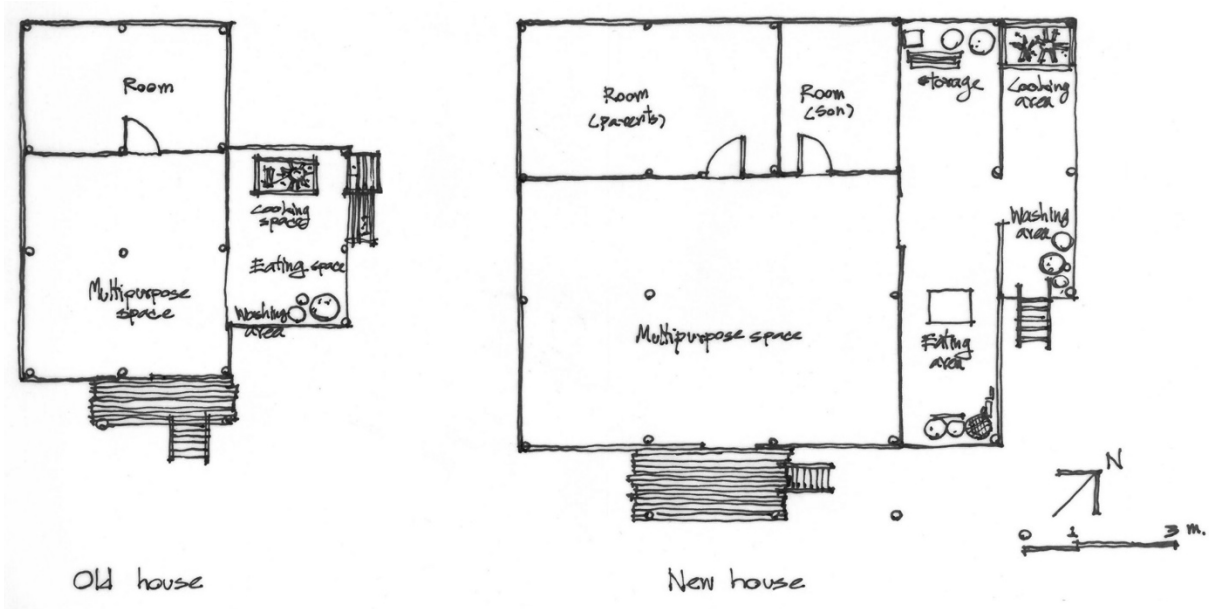


Fig 6.30 The old and new houses of Supasa's family

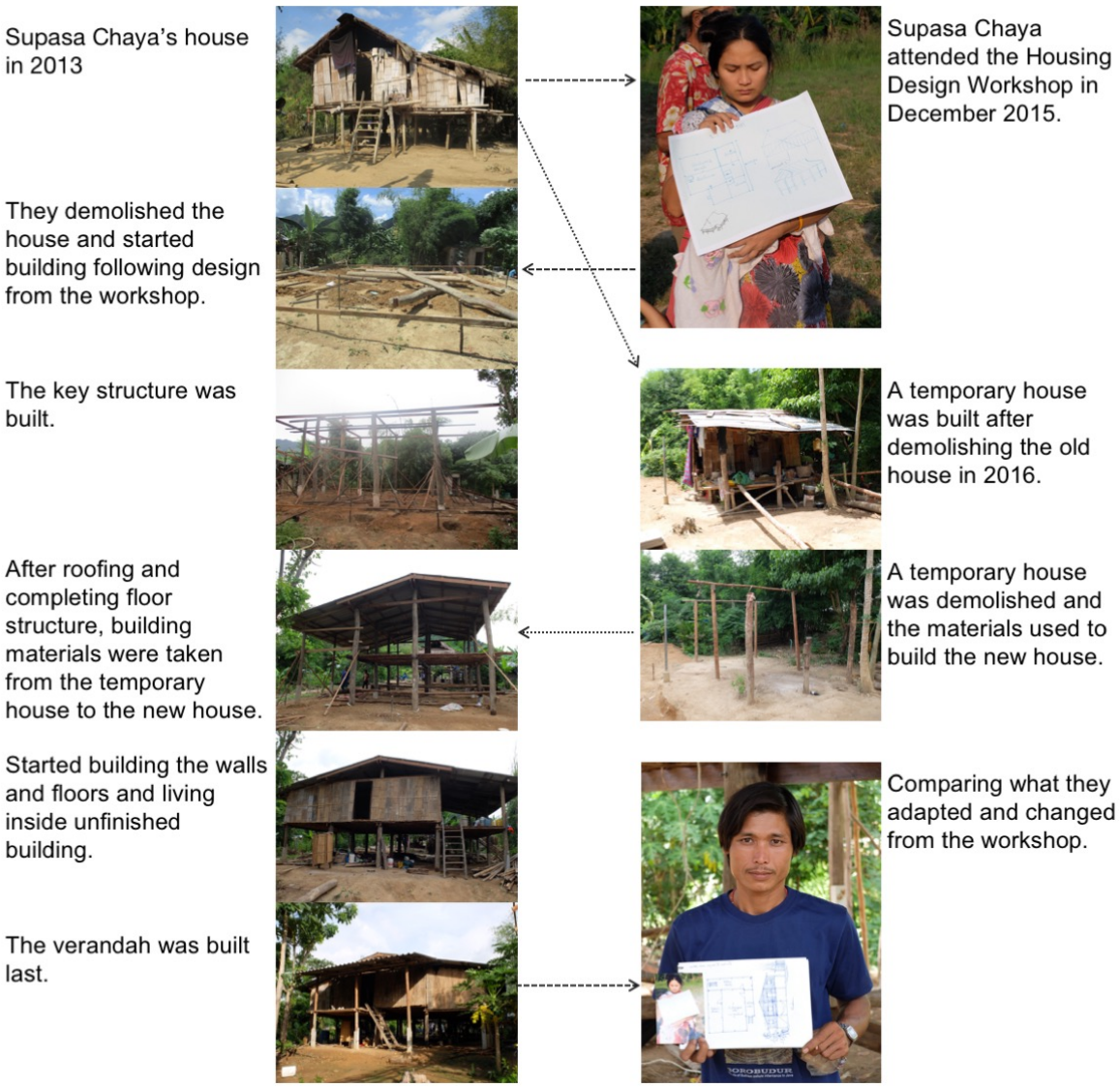


Fig 6.31 Sequence of the transformation of Supasa and Vichai's house

It can be seen that the new house plan is modified from that of the old house (Fig. 6.30). The transformation allows step-by-step development of space to match people's needs. The drawing from the workshop was a good piece of evidence that led us to see the holistic view of the design and changes. It contains the details and elements that described the continuity and changes. Furthermore, the house's condition, building materials and budget play an essential role in the processes and are influential in deciding the building processes and time frame. In summary, the re-housing process of linear time deals with past, present and future aspects. It indicates the transactional processes that occur at a family level in a house. It links to social rules, social structures, family structures, affordances, constraints, planning and action. It apparently indicates the aspects of Karen-environment relationships within the regulations.

6.4.5 Human scale: relationship between the body and the house

In the housing design process, scaled representations of the house form play an essential role by considering the relations between a house, its elements and the human body as well as its environment. This part aims to analyse the human scale, how the building relates to the size of the Karen people and the context of the building.

The Karen considered the scale of house elements when they were designing and building the houses. This is because the human scale represents a relationship between the space and form linking to the concept of the building and design processes. For instance, they use the elbow as a traditional measurement tool to represent the measurement of a building. They transform an elbow unit into a long piece of bamboo or string as a kind of instrument to measure in the scale of four, six, eight or ten elbows (forearms). The elbow unit was also applied as a measurement unit in the workshops (Fig 6.33).

Additionally, the height of the body is employed to measure the space underneath the house floor and the height of the ceiling, to create the proper space for family members. Kittipot Chaya mentions this in the statement below.

> *[…] House floors will be divided into four levels. At each step, I need a gap between levels around here… one palm of a hand. […] and I need the height of the floor around here [he projects the height on a column by comparing the height of his body]* (Fig. 6.32) *I need the house keeping well ventilated and lit, so I do not need to build the front walls and I need a high platform […]*
>
> Kittipot Chaya, 25 years old, 22 September 2016

As described above, the role of the body is that of a unit of measurement. The projection of the height of the householders or builders onto the height of a column indicates how they experience that height relating to the vertical space. Moreover, they aim to indicate a specific body in relation to specific spaces. In a sense, a body is seen as an instrument of designing a house. It indicates the width, height and depth of spaces; in other words, the physical scale of the body is indispensable when building houses, because of the process of creating a house that is always built by hand and is compared with the body scale of occupants or builders.



Fig 6.32 Kittipot shows the level of his house floor

Kittipot projects his body's height onto the columns to show the proper height of the house floor (see his house in Figs. 6.48–6.50).

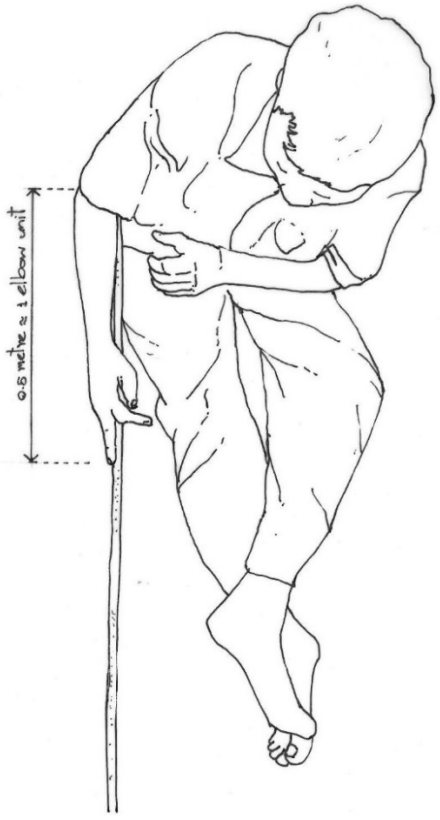


Fig 6.33 The elbow unit

Traditionally, the elbow unit is the measurement unit of the Karen. Each household has a different measurement scale depending on the forearm of the owner. One elbow unit is approximately 50 cm.

The system of measurements in the Karen culture has been based on the dimensions of the actual body of the owner. It is represented in the house elements and spaces. The Karen use the body or other organs to define the space scale and elaborate how they occupy the space in term of movement and dimensions. Consequently, each Karen house is built to a different scale and proportion depending on the forearm length of the occupants and builders. The scale of the human body and comfortable spaces are combined with the environment in response to the fundamental needs of the occupants. For instance, the size of internal spaces is compactly produced in a way that is relevant to their body scale, and the limitations of the budget determines spaces and arrangement of elements in the house.



Fig 6.34 Space inside the house of Sorkoapor
Sorkoapor uses the space underneath the roof to store belongings. The level of the ceiling and the floor fit the human body. These are the cooking and eating areas. The family hangs many belongings such as food and baskets on the tie and roof beams. Sorkoapor's wife is sleeping alongside the fireplace and he is eating lunch.

6.4.6 Design for the future: Porla Ladoa's house

The houses are built to support the various activities of household members. They generally demolish the old houses for different personal reasons, such as rotten materials, poor house conditions or requiring more spaces. Many people use the materials from the old house, mixing them with new materials from the town to reproduce the spaces. Some households design a flexible house space to build in the future when they collect enough budget and materials; they will increase the house space themselves.

> I met Porla at his house.
> He was moved in 1996. He received an allocated piece of land to build houses and farm around 2.8 acres.
>
> Today he is building a new house. This house is built to support six household members: the parents and four children.
> *"I demolished the old one and collected some good materials to build the new one. The new house is located on opposite side to the old one. I combined the used and new materials together; for instance, I used both fibre cement roof sheets and galvanised metal sheets from the old house"*, Porla said.
>
> Porla Ladoa, 28 July 2016

Although a new house has not been completed, he has started occupying the house since January 2016. Because he does not have sufficient bamboo and wood, he has therefore left the space in the front of the house. This would be the main entrance and living area for guests. Today, he accesses the house through a cooking and eating area. The space under the house is for drying clothes, keeping firewood and resting at noon.

Designing or planning for future spaces becomes an important role in self-built housing. Householders have many ideas about the design, to be creative and to participate in the design and development of these new configurations. This approach not only responds to the economic issue, but also aims to prepare the design for future spaces. This approach therefore adopts a more strategic view to plan for further spaces to achieve the householder's desires.



Fig 6.35 An old house of Porla in 2014
Porla's old house before demolition in 2014. It was a small house with galvanised metal sheet roofing. In 2016, he demolished it and built a little temporary house to live in for a couple of weeks while building a new house.



Fig 6.36 Porla building a new house in 2016
He started to live in an unfinished house and was building the house at the same time.

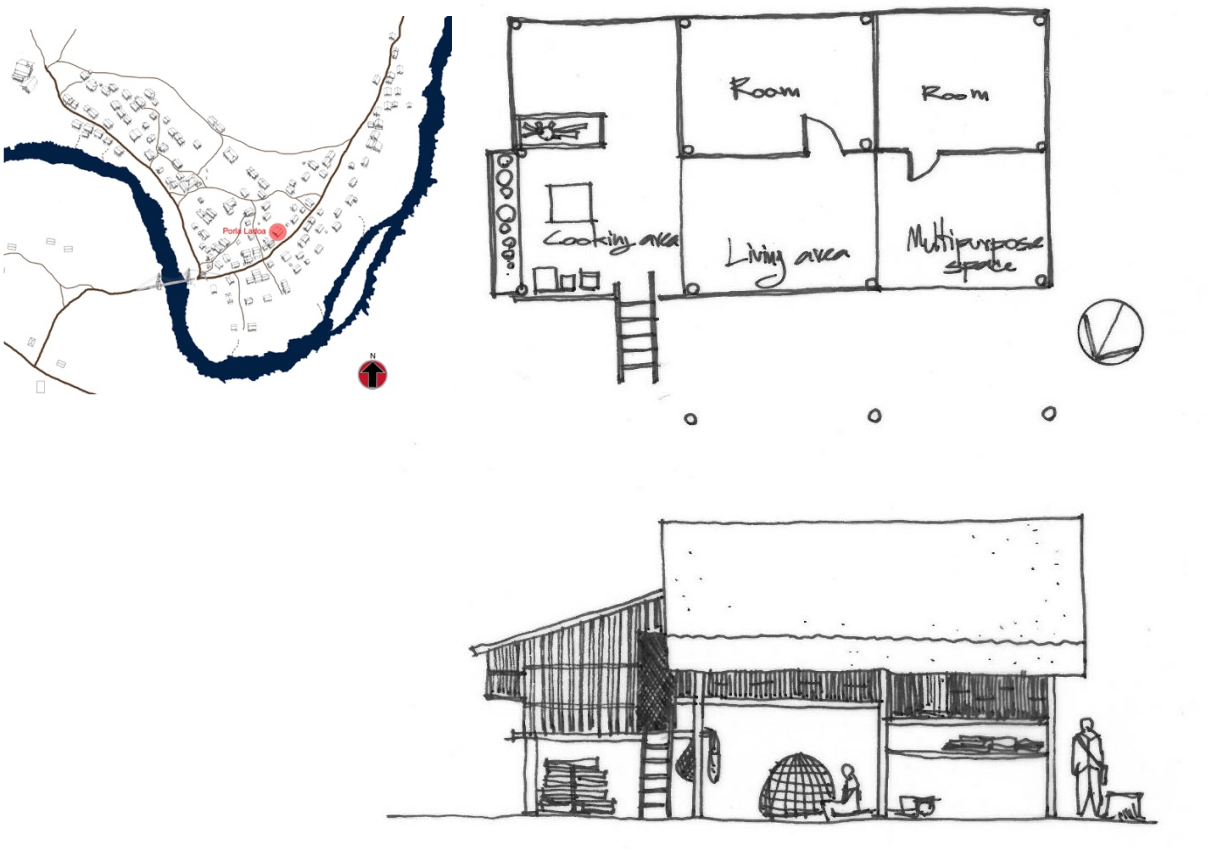




Fig 6.37 Uncompleted house of Porla Ladoa in 2016

Porla left a space that would connect to future areas of the house. The house is divided into three main areas: cooking, multipurpose areas and two rooms. The main entrance is via the cooking area, and he built the fireplace at the centre of the cooking area. The uncompleted house will allow him to extend the space in the future because use of a wooden structure commonly enables people to extend the house space.

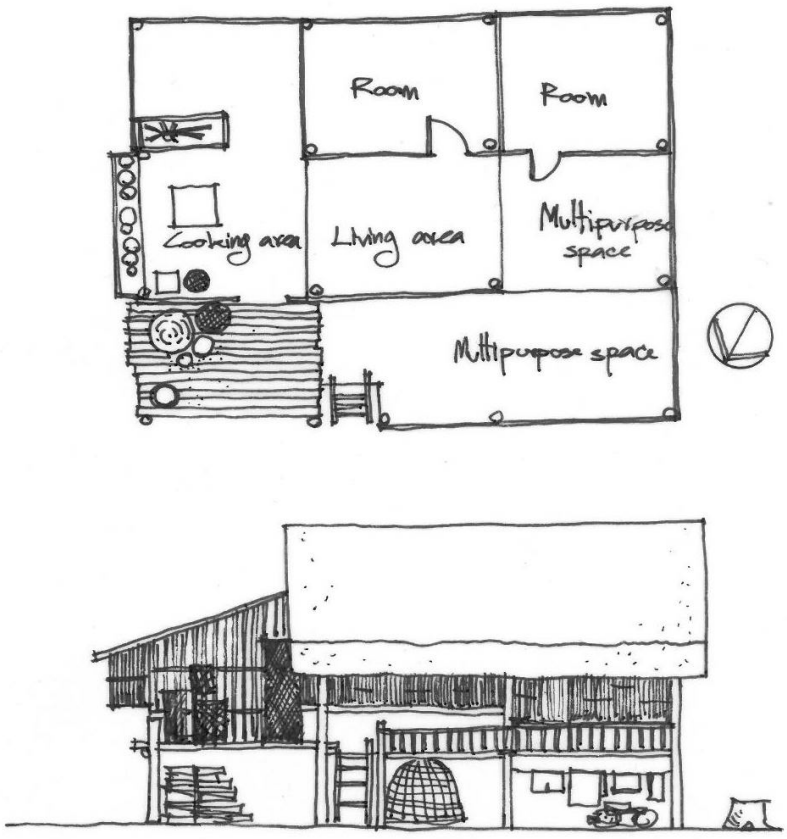


Fig 6.38 Porla Ladoa completed house space in 2017
Porla built washing and multipurpose spaces. The washing area is lined with poles of bamboo connecting to the cooking area. Next to the washing area is a multipurpose space. It is an open space.

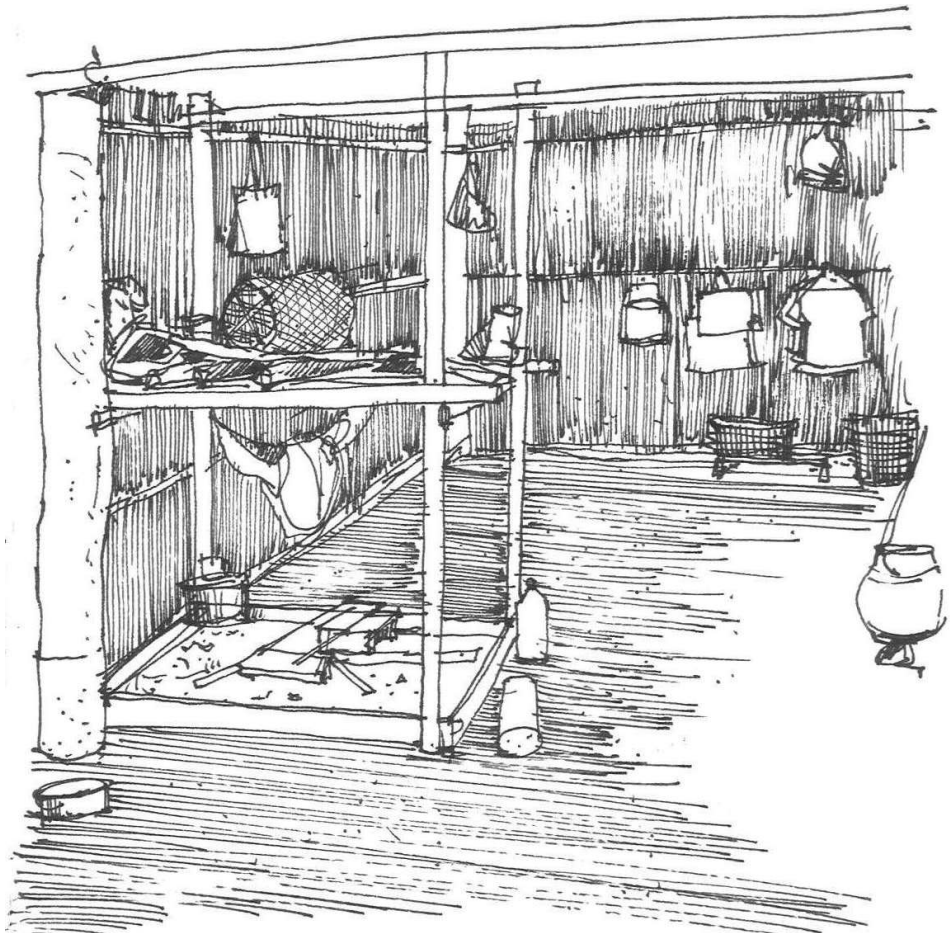


Fig 6.39 The fireplace
The fireplace is created at the centre of the cooking area.

We can see that the size of his house is physically bigger, and the house is more durable. For example, the builders made concrete footings to support the columns to make it strong. In terms of internal space, the size of the cooking area is one-third of the house area. The centre of the cooking area is the fireplace. Next to the cooking area, there are two rooms and in front of these rooms is a living space connecting to a multipurpose space. Meanwhile, the height of the new house floor is similar to that of the old house because they need to use the space underneath the house to dry clothes, store items and feed chickens.

Porla's house process clarifies the facts of the housing process for the low-income community as to which design details can be reduced in the use of resources such as building materials. For successful housing design, it is essential to have a clear understanding of the resource requirements to produce the design. The first step is knowing what kind of building materials they have and require, and how to bring them together. Also, building the house oneself is an economic advantage by avoiding the cost of hiring labour. This concept requires householders to take a holistic view of their future house, with outcomes of household ideas. Also, using recycled and reused materials reduces costs, and replacing objects is an alternative method.

6.4.7 Housing needs

Home is a basic need. A dwelling is a system of settings within which systems of activities take place (Rapoport, 2006). On the other hand, a need is an inner drive that is affected by social and natural environments. It also directly affects housing processes such as values, space and form. Thus, we will see that the variety of needs of the design and construction of the house such as layout, house form and structure indicate the distinct forms of a degree of households' needs. Primary needs are house size and function, represented in the early decision-making stage; on the other hand, form and shape are flexible needs which follow functions. In other words, they focus more on modifying the house to meet the requirements of the quality of the house, such as sufficient space, durability and comfortable living.

Additionally, it is obvious that a household increases in size because the addition of members or reduces when the children leave to marry (Tipple, 2000). In other words, the demand for the house space depends on the size of the household and the population. Today, the rise in population has put pressure on the demand for housing in Banggloy. The percentage of the population of each generation in 2017 provides a sign that the large demand for houses in the future will be for the younger generation; for example, the population of Karen children is around 50 percent of the total, causing the need for more house spaces and land for living in the future. Thus, population growth is playing its part in driving the demand for houses and influencing the need for housing.

House extensions can be seen in many households, especially in small houses where there is limited space for many household members. Takinu Kwabu mentions his house (Figs. 6.40–6.42) and Lonnachai talks about his father's house (Figs. 6.43–6.45).

> *I have seven children. The oldest is 16, while the youngest [twins] are almost two years old. I am a farmer, and my wife is a weaver working at the weaving house. I rebuilt the cooking and living areas [approximately 54 m^2] in 2015. I need spaces for my sons and daughters.*
>
> Takina Kwabu, 37 years old, December 2015

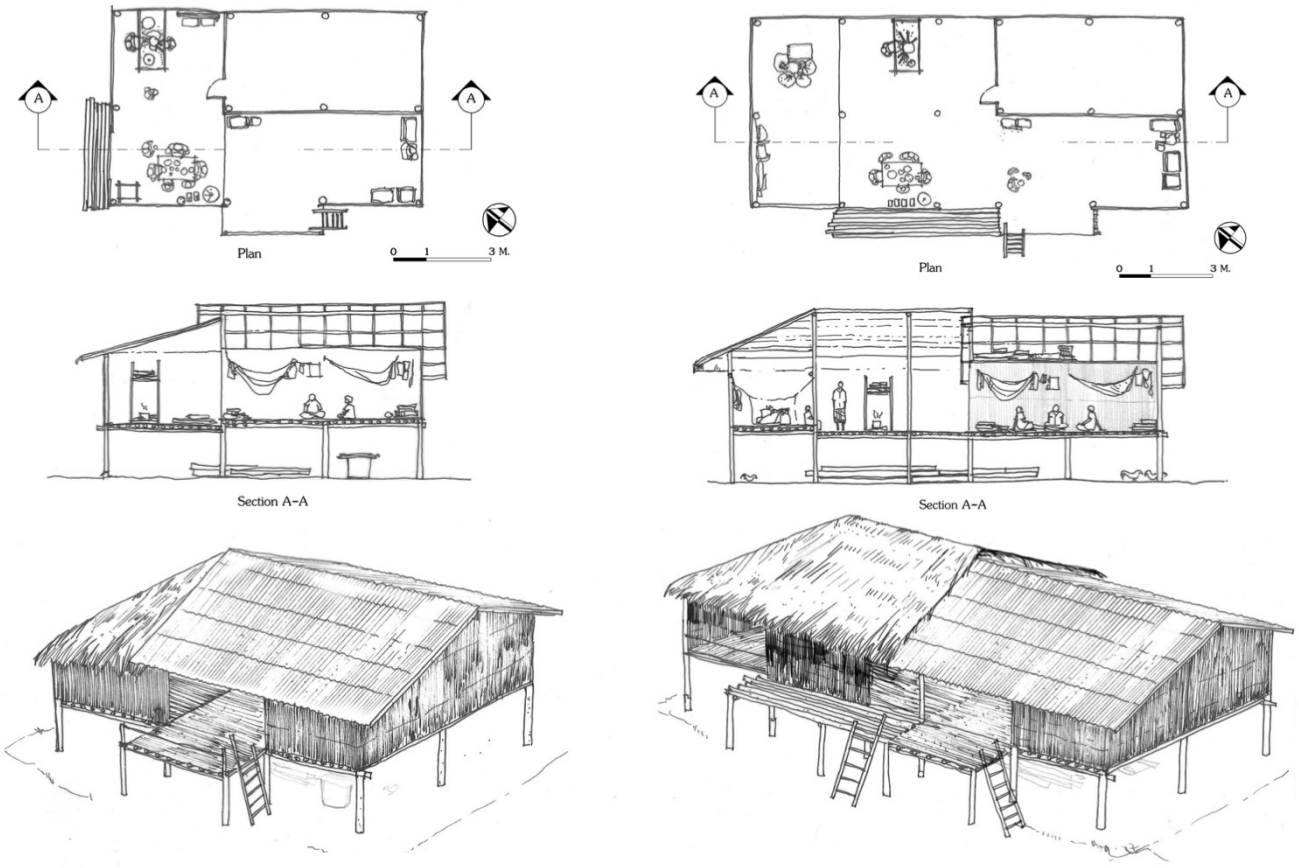
> Before extending, the house consisted of two rooms, a cooking area, a multipurpose area, a washing area and a verandah. The roof form is the gable. Parmo's sons and daughters always come to see him every day, some days they come to sleep and cook in the house.
> I asked Lonnachai [son] why does he [Parmo] need to extend the areas? Lonnachai said that his father [Parmo] needs to build it for guests and them [his children] when they come to meet him.
>
> *"I built the new areas following my parents' needs, we spent a week to build the new spaces",* Lonnachai said.
>
> Field notes, September 2016

In the same vein, someone with no land or accommodation will have to stay with their relatives. However, in recent years, the Karen people have developed their accommodation to be satisfactory. In many cases, the land is still in high demand for living and cultivating rice. Thus, some families have tried to return to the original land. In 2016, the survey from the Karen leader shows that 82 households do not have the land for farming and living, even the Karen leaders. This can be seen in the families of Goala Vena and Vichai Wormor.

> *I was born at the Thai–Myanmar border and moved to here in 1996. Then, I moved to work in the town for more than ten years, and I returned to this village two years ago. We now live on the shared land of my sibling.*
>
> Goala Vena, 39 years old, 27 July 2016

> *I am a farmer and self-employed. My wife is unemployed. We have three children. We do not own land. Now, this house is built on my mother-in-law's land.*
>
> Vichai Wormor, 32 years old, 28 July 2016

Increasing the house size by the process of extending the house is one of the techniques that people can carry out themselves to provide sufficient spaces. The main need of the Karen is not only for a strong building but also for enough spaces. Thus, small houses are more likely to be extended than large houses. Building and extending the house becomes an option to improve living conditions. The increasing population is a direct and indirect result of transformation activities (Tipple, 1999) and much extension activity often appears in crowded families to increase the proportion of spaces. To sum up, many Karen families try to search for a subsistence method of making a living, particularly by building extension spaces to their present houses. Extending the house spaces is associated with their household members, and highlights the same scenario, in which the householders improved the house to support household members and relatives.





Before rebuilding in 2013 After rebuilding in 2016

Fig 6.40 Before and after rebuilding Takinu Kwabu's house



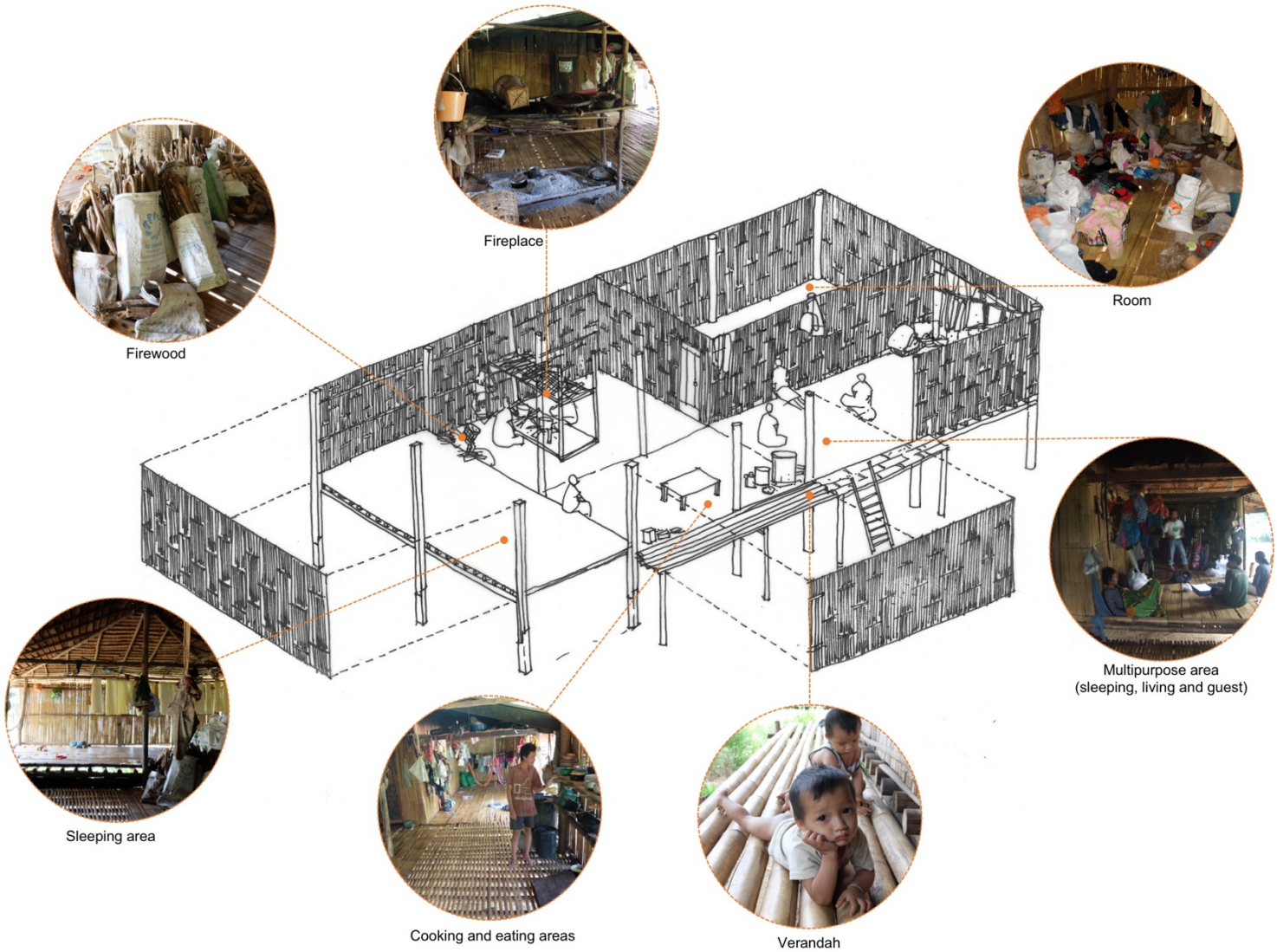


Fig 6.41 Takinu Kwabu's house space after rebuilding in 2016

The figure shows the spaces in the house after extending and rebuilding. The fireplace is still in the same position. The cooking and eating areas are at the centre of the house. There are multipurpose and living spaces on both sides of the cooking area. The verandah is the entrance that connects to the multipurpose space. A "room" refers to an enclosed space for sleeping and storage.

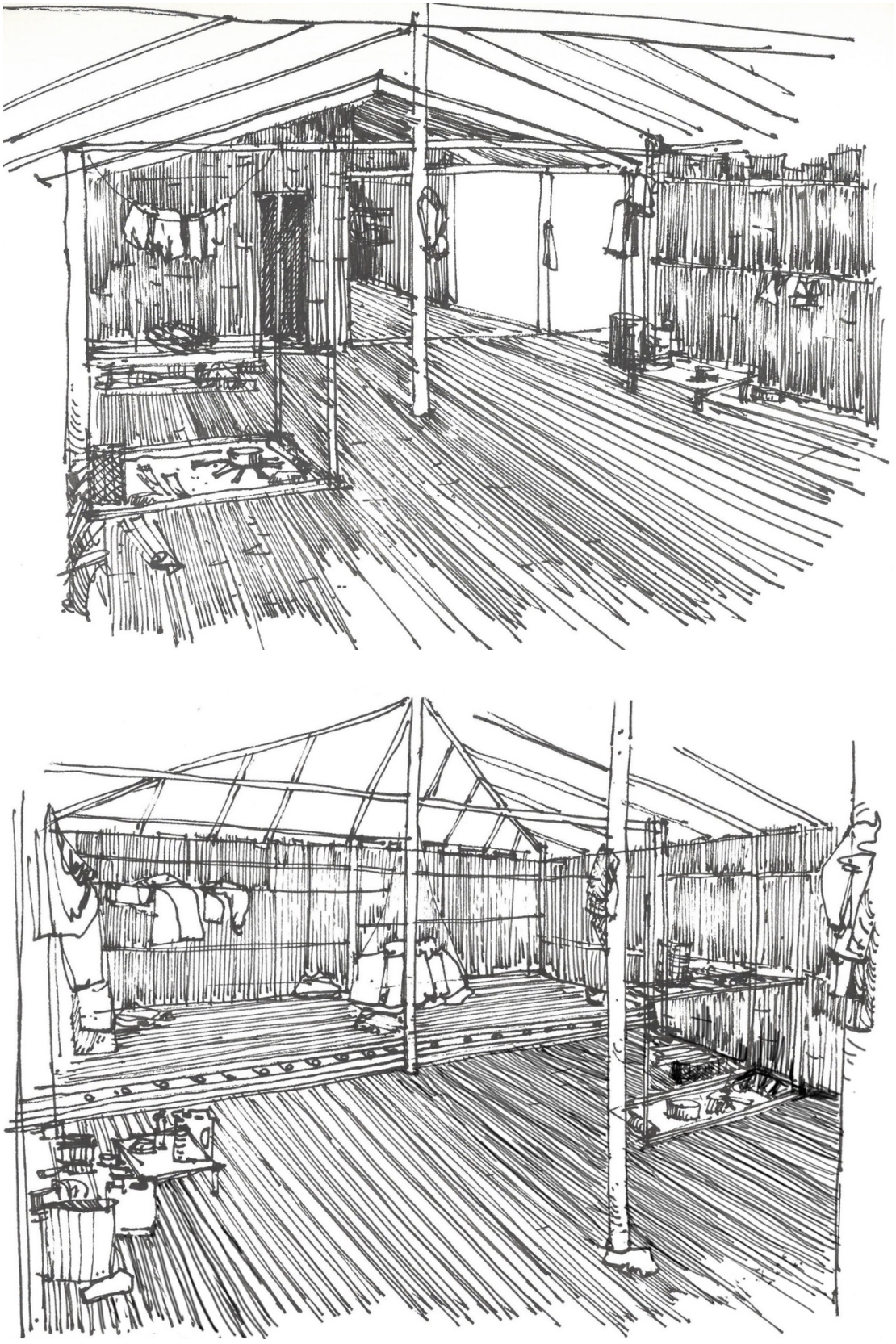
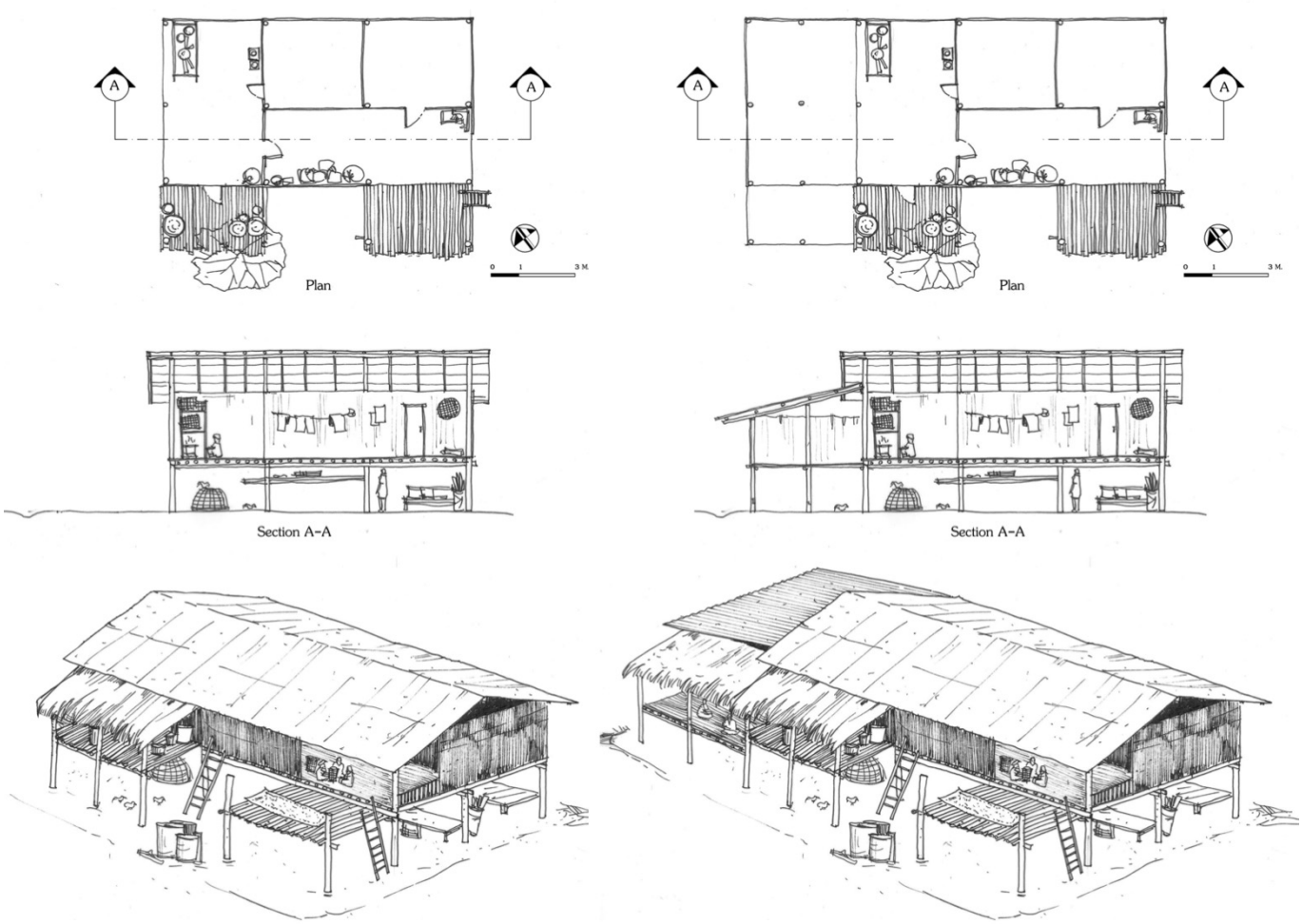


Fig 6.42 Rebuilding spaces in Takinu's house
I sketched the rebuilt space: the cooking and sleeping areas. The house was clean and new with new building materials. I made the sketch when I visited Takinu's house in 2015.
Above: a view from the living space to a room, cooking and multipurpose spaces.
Below: cooking, eating and living spaces.





Before rebuilding in 2014



After rebuilding in 2016

Fig 6.43 Before and after rebuilding Parmo Ladao's house

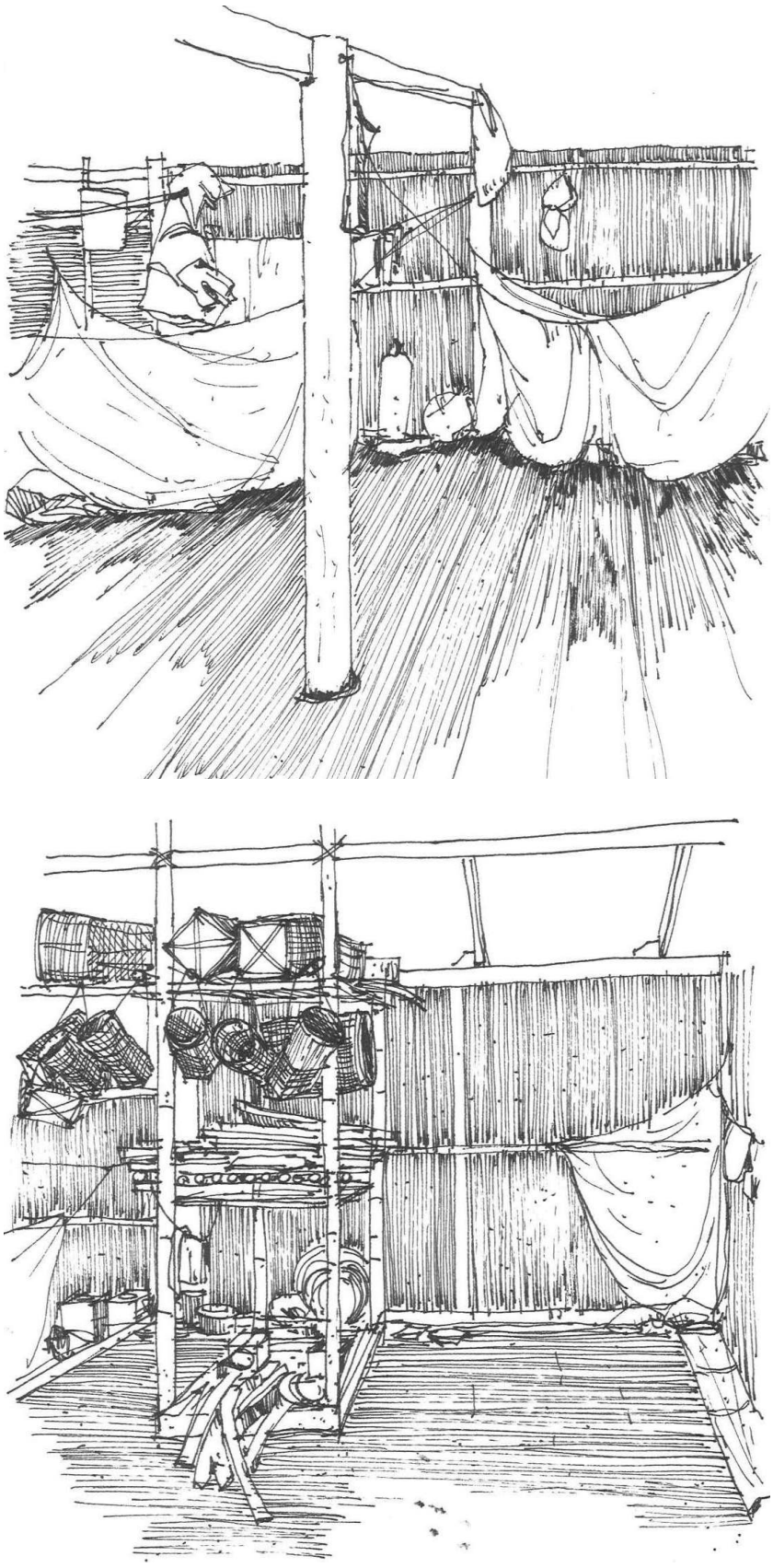


Fig 6.44 Internal space of Parmo Ladoa's house
Above: an extended space for sleeping.
Below: the fireplace is still in the centre of the house and Parmo sleeps alongside it.

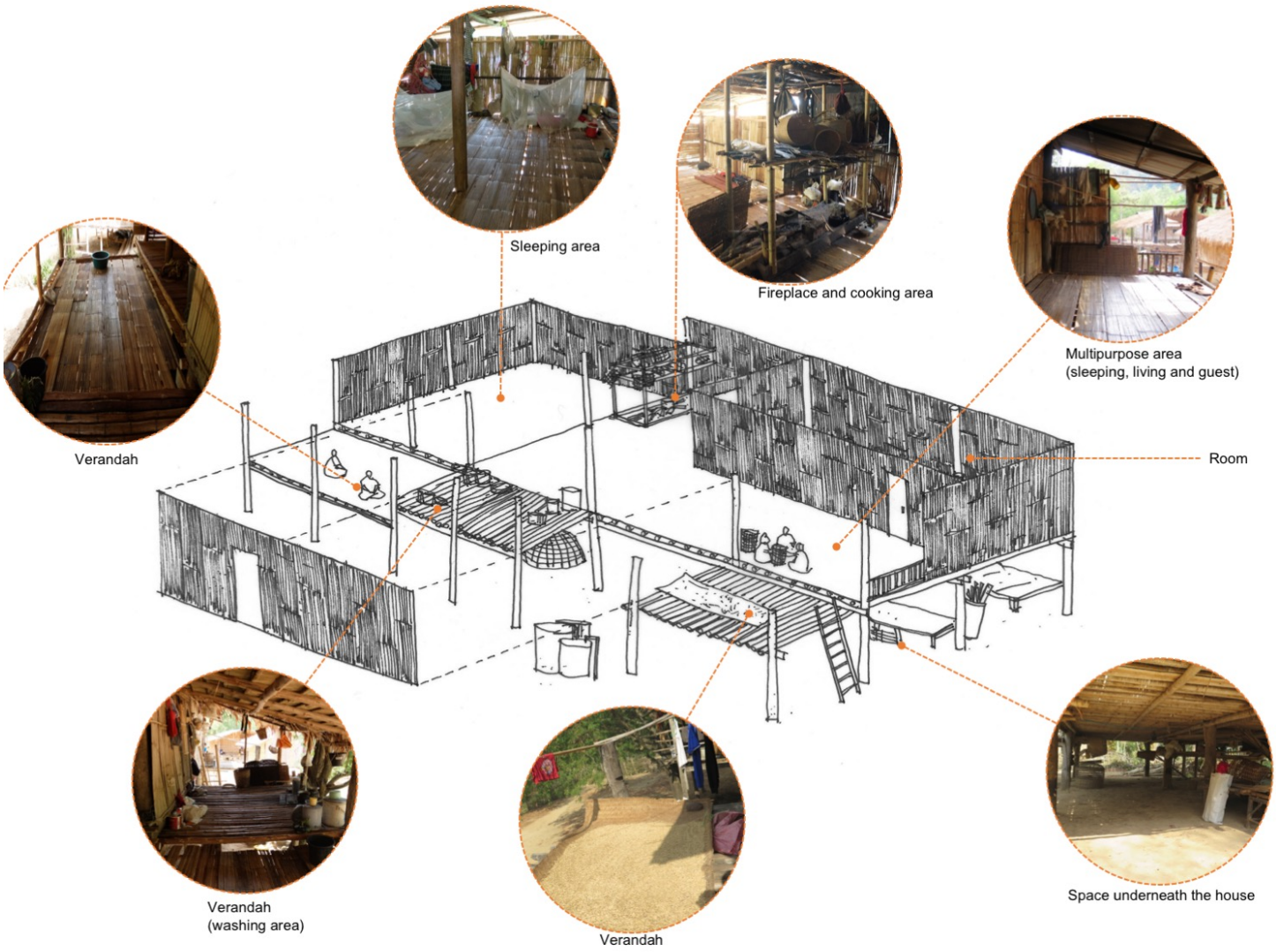


Fig 6.45 Parmo Ladao's house space after rebuilding in 2016

The house spaces after extending. Parmo added a sleeping space and verandah. The cooking area is at the centre of house. He prefers to sleep outside a room. Thus, the room is for storage. He built three verandahs: one is for drying chillies, another one is for the washing space and the last one is a living space. They also have plenty of space underneath the house to feed chickens and for storage.

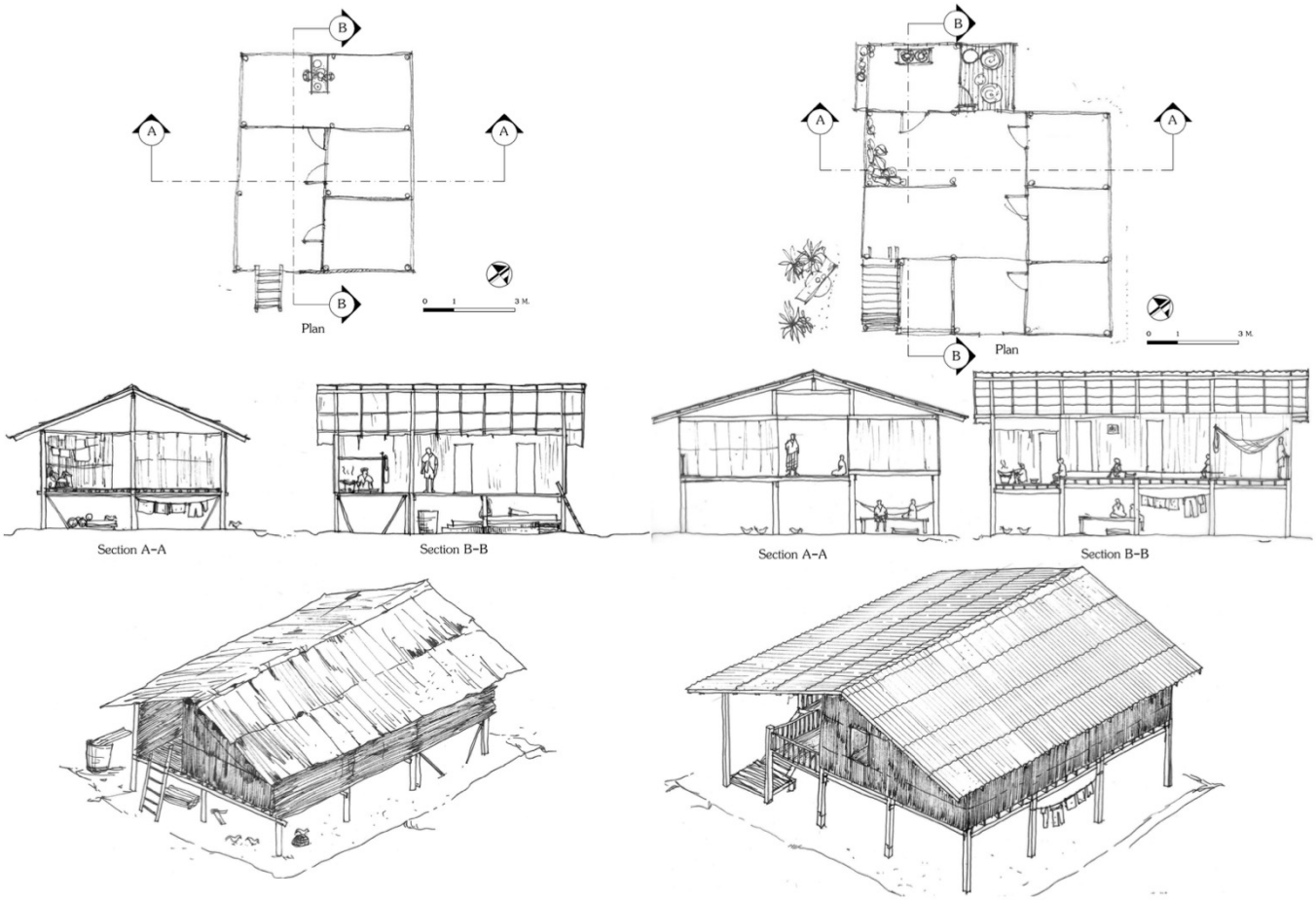
6.4.8 Modifying house forms and spaces

Traditionally, the Karen have to repair or rebuild bamboo houses every year because they are built from temporary materials. The alternative solution, to improve the quality of the house, is available via modifications. In other words, temporary materials and structures force them to rebuild the houses. It is obvious that one of the factors results from poor housing conditions or shortage of house space. The effectiveness of re-housing, providing more durable houses, is therefore one of the main concerns of the Karen.

The re-housing process delivers a clear advantage to them, including creating a healthier and better quality of life. However, the shortage of accommodation is likely to be the critical factor in adapting and transforming the Karen houses. In turn, poor housing conditions and lack of accommodation lead to some pressure, motivating the need for rebuilding.

Tipple (1999: 29) mentions that *"old dwellings, with their poor physical appearance, become enveloped in the development as a part of the transformation process".* Following this concept, the Karen are agreeable with spending substantially on building and adapting their dwellings to be more durable. Many Karen have lived in their bamboo houses for many years with poor quality of structure – for instance, leaking roof or damaged columns – leading to an accelerated decline symptomatic of housing at the end of its economic life. Repairing the house, where materials are changed, can be found to produce a durable dwelling. Empirical evidence can be seen in changing the footing and roofing materials. The Karen people seek to adapt their houses to their behavioural needs and for household members' activities. They seek to correct the problems through building, rebuilding and extending their houses. Furthermore, extending or rebuilding their houses provides them with the opportunity to make adjustments to the houses; for example, Jua Jeebong's house (Figs. 6.46 & 6.47) and Kittipot Chaya's house (Figs. 6.48–6.50).

Consequently, house form and structure are modified and improved to fit current needs. New building materials and technologies have been incorporated in ways that conform to the modified form. Physical changes of the house form aim to improve the quality of material and structure by adapting building techniques, such as the foundation being secured with concrete footings. In order to add stability, the roof and floor structure are timber. However, comparing the old and new house plans, there is less change. The physical changes in the new house form have concentrated on development of house quality, but without changing the spatial aspect of social and family structures and organisations.





Before rebuilding in 2013

After rebuilding in 2016

Fig 6.46 Before and after rebuilding Jua Jeebong's house

Jua decided to build a new house by demolishing the old one and rebuilding it in the same position. A new house was built by mixing hardwood and bamboo. The roof was changed from galvanised metal sheets to fibre cement roof sheets. Jua is standing on the stairs at the front of the houses.



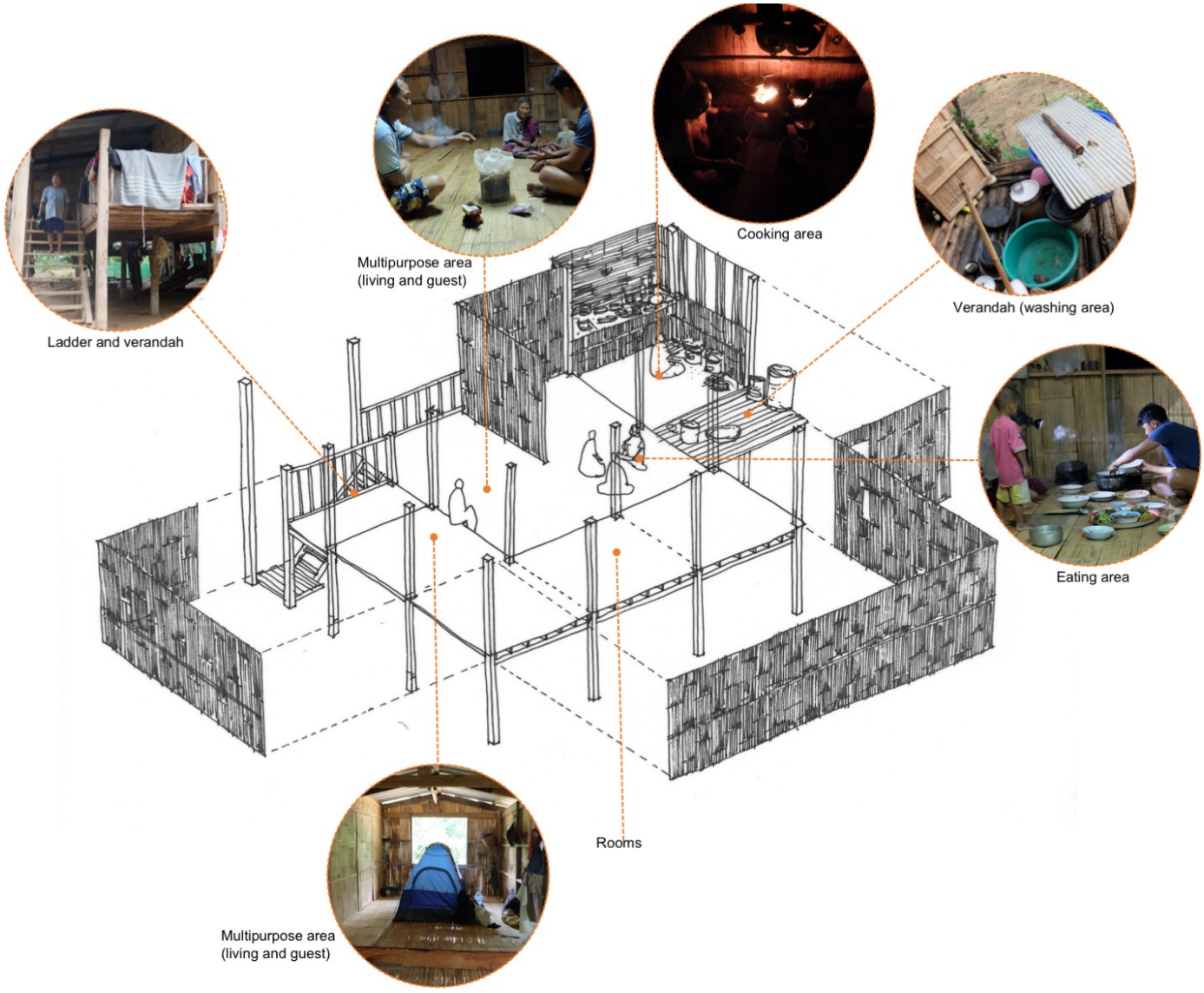


Fig 6.47 Jua Jeebong's house space after rebuilding in 2016

A new house was built by mixing timber and bamboo. The roof was changed from galvanised metal sheets to fibre cement roof sheets. The house space is divided into six areas: three rooms, the cooking, storage, living, multipurpose and washing areas, and a verandah.



Fig 6.48 Kittipot Chaya's house in 2016

Tongdee (Kittipot's father) is building a traditional bamboo house. The fireplace is the centre of the house. However, this house gradually became rotten. They demolished it in 2017 and rebuilt a new one (Fig 6.50).

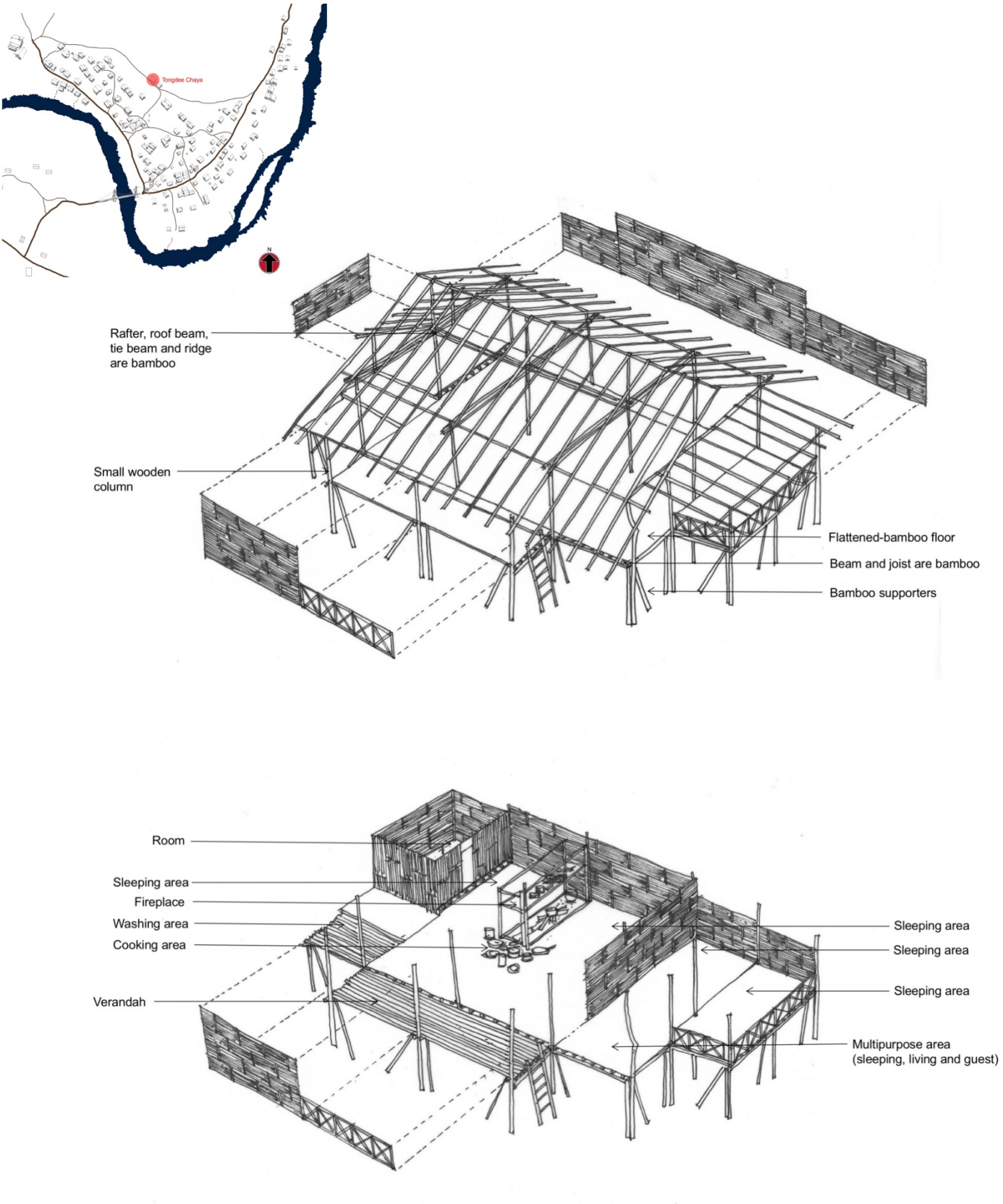


Fig 6.49 Kittipot Chaya's traditional bamboo house

The house consists of five areas: the cooking, sleeping, multipurpose and washing areas and a storage room. The structure is built from bamboo poles and small wooden columns. The roof is made of leaves. The walls and floors are bamboo. The centre of the house is the fireplace and cooking area. The front and the back of the house are sleeping areas. People also sleep alongside the fireplace. Tongdee said that more than five people are living in this house. The house has very good ventilation.



Fig 6.50 Kittipot Chaya's new house in 2017

Kittipot showed my sketch of his new house. Behind him was a bamboo model. The model was built from bamboo and tree branches. It was built simply and from the heart to show the structure, shape and form. A model is also an excellent tool for discussion. The picture below is a new house that was built next to the old rotten house.

6.4.9 Combining building materials

The quality of the structure refers to the standard quality of material, which is an essential need for recreating Karen houses. In other words, the quality of accommodation is associated with the quality of the structure. The structure therefore takes first priority over other factors. There is a great need to identify alternative resources and materials for construction, which should be cheap, sustainable and environmentally friendly.

Within the context, the knowledge about natural resources and local materials are effectively adapted through the rebuilding processes concerned with building skills and local technology. The local building technology, such as roofing, walling or connecting joints, are distinct from modern methods. The specialisation of the traditional Karen house undoubtedly enriches the local building technology. Today, in turn, this has become problematic for the Karen because they require permanent or durable buildings. The solution of technological problems is to adapt and rebuild the structure to be stronger by requiring and combining both traditional and industrial materials and contemporary techniques. Under the national park regulations, the available materials and construction techniques unavoidably influence the house form. The Karen houses have often been criticised as temporary structures, because the traditional construction lacks the quality of materials to create long-lasting houses. It is therefore unsurprising that they usually require materials with durability, particularly industrial materials.

The national park does not allow the use of concrete posts and bricks in this project. However, in 2015 the Karen proposed concrete footings of one metre in height to the park officials in order to build the house structure. After negotiations, the national park allowed them to use it. In 2017, the Karen proposed the use of galvanised metal sheets and fibre cement sheets to the park officials and then obtained permission for these. In the end, the Karen obtained access to some industrial materials, such as concrete footings, fibre cement roof sheets and galvanised metal sheets. These items challenge their traditional design. They reproduced the houses' spatial forms by mixing local and industrial materials, which contributes to modification of the structure to produce the required spaces. For example, Doimooyaw rebuilt his house by combining old and new materials (Fig. 6.53). Building from the local materials seems more beautiful and attractive. However, the Karen desire durable houses to support their needs and functions rather than being concerned about their material value.

In summary, the Karen produce a variety of house styles based on mixed building methods. They combine local and industrial materials to respond to behaviour, climate and construction. Currently, these practices are commonly found in the village. This challenging task can be expressed simply through the adaptation of house construction and materials.



Fig 6.51 Doimooyaw explains his design

Doimooyaw explained the design in the workshop in December 2015. He was the first person to finish the drawing and design. He explained the example design to other participants. This lesson was a valuable starting point for us to see what the workshop should do.

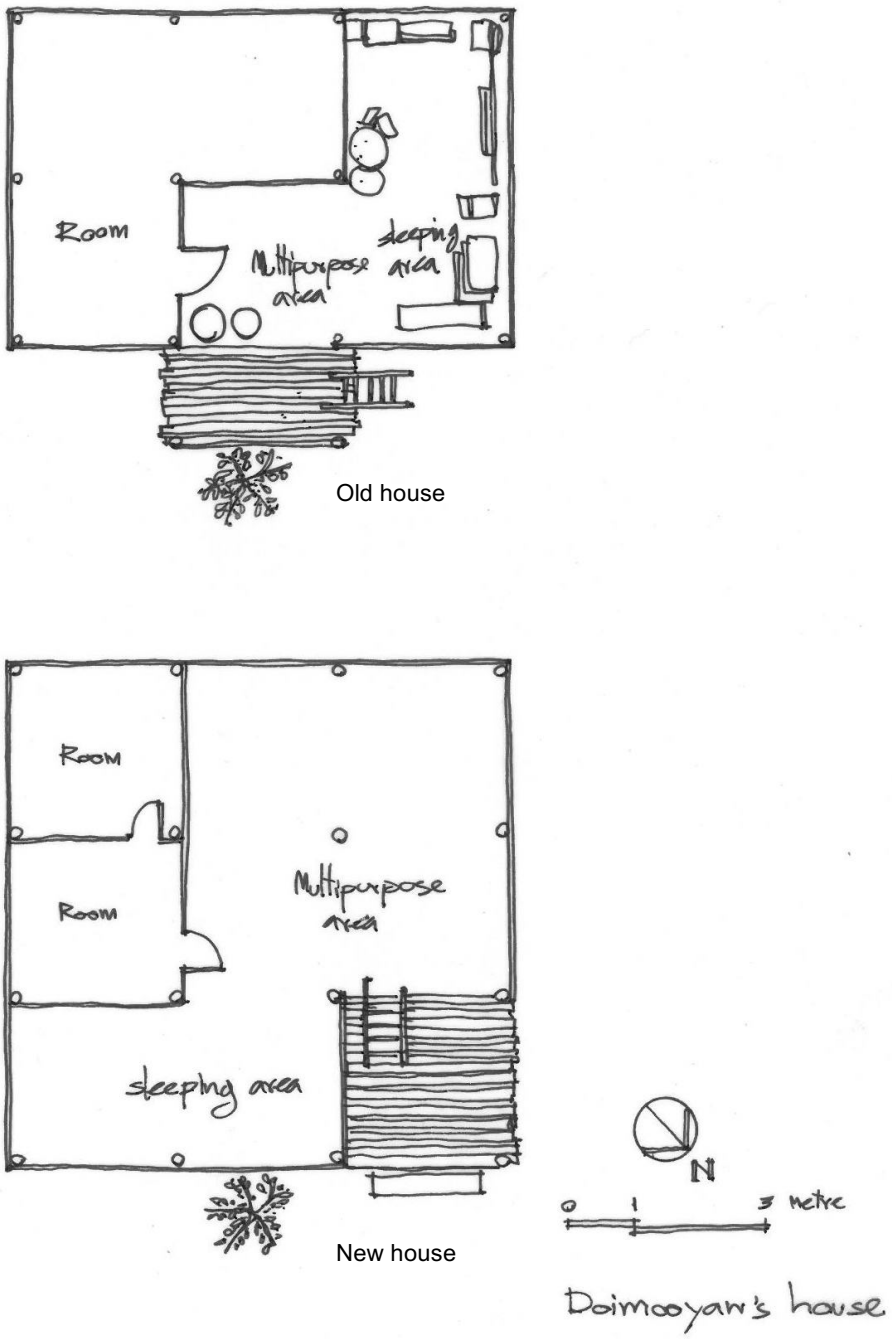


Fig 6.52 Comparison between new house and old house plans





Doimooyaw's house in 2014. The structure was poor. The floor and walls were rotten.



He demolished the old house and built a new house in 2016.
He created the house structure to be stronger than the old one by building a concrete foundation to protect the columns from termites.



His new house is almost complete. It is roofed with galvanised metal sheets. The entrance is still in the same position.



A new house was built in 2016 but the interior was not complete because of the lack of bamboo. If it is completed, it will consisted of an enclosed space, multipurpose and cooking areas.

In summary, he used old columns that he has collected for a long time. These are better and stronger than the columns from the town. Comparing the old and new house, he tried to solve the problems by 1) building longer eaves – around 1.5 metres – to protect the columns from the rain; 2) creating concrete foundations; 3) building eucalyptus joints that are stronger than bamboo. The roof is still made from galvanised metal sheets.

Fig 6.53 The building process of Doimooyaw's house

6.4.10 Spirits and house spirits

Many households in the village still retain traditional beliefs and rituals. They believe in 37 spirits called *khwan*, which are invisible to humans. These spirits occupy every individual, animals, trees, rivers, hills and mountains, and are responsible for psychological and spiritual well-being. Everyone has 37 *khwan* or spirits living with them. Losing *khwan* is thought to cause health or mental problems; in particular, children are supposed to be most at risk. A traditional healer will hold a wrist-tying ritual at the community house yearly. A white string is tied around the wrist of an adult or the neck of a small child to prevent the spirit going away. If all 37 spirits leave, a person will die (KBDDF, 2010). Therefore, it is necessary to keep the *khwan* feeling safe and peaceful.

Furthermore, belief in ritual practices can be found when building the houses. The Karen believe that the spirits living in the house are much like elderly relatives. Therefore, before and after building houses, the Karen have to perform a ritual to pay respect to the spirit; for instance, the choosing of an auspicious house site. Lonnachai Ladoa and Doimooyaw Pugad explain this phenomenon.

> *In the past, before building houses, we will select a piece of land first. We put seven grains of rice down on the land where we have selected. We will place the heads of the rice grains together [like the shape of a star], then we will use a cup to cover it. Lastly, we will pray that we would like to live here. Then, we will leave it one night. If, the next day, the rice grains are destroyed or cracked, we will not select this land to build a house. This ritual is called "*Kta"*.*
>
> Lonnachai Ladoa, 35 years old, 27 December 2015

> *[…] After building a house, then at the first night, we hear the sound of a [particular] bird the [bird's name is* "Thotapu" *in the Karen language] or that of a barking deer, we have to abandon that house. We believe that this means unhappiness and misfortune. Just on the first night; if we hear them on the second night, that is fine […].*
>
> Doimooyaw Pugad, 40 years old, 27 December 2015

Currently, they cannot perform the rite to choose land, because they have to live on allocated land. The pieces of land are already prepared, and they just build houses on the allocated areas. However, many Karen still perform the house building ceremony. They believe that the spirits reside in their houses and the environment and protect the family from evil. The householders should make this special arrangement and carry out the ritual before building houses. At the starting stage of building the house, they will pay their respects to the land where they lived, while after completing the house, they also will celebrate the house by inviting the neighbours to join with them over food in the new house. Lee Pugad, Doimooyaw Pugad, Somsook Gudjid, Lonnachai Ladoa and Sainam Buasri explain this ritual practice before and after building houses.

We prepared food such as rice, chicken curry and soup. This means that we eat only rice and chicken. We do only this ceremony [her husband points t to a small basket (ritual basket) with a cover hanging on the wall]. *Inside that one is cotton and money (one baht) from the ceremony. We hang it on the wall out of reach of children. We do not allow children to touch it. The next year, we will take it down to celebrate, after celebrating we will bring it to hang in the same place. […] We do not fix the day and time for the ceremony; when we are ready, we will do it because some household members work and live outside the village. […] For the family who does the "eating chicken ritual", they have fed a lot of chickens to use in the ritual. And if someone asks to buy them, they do not sell it; they believe that it is for the ritual only.*

Lee Pugad, 58 years old, 27 July 2017

Before demolishing a house, we have to perform a rite such as the 'eating chicken ritual', some households may do so, some maybe not […] After the building is complete, we have to perform the ceremony again before living in the new house.

Doimooyaw Pugad, 40 years old, 29 December 2015

[…] Before building a house, we [house owners] will pay to respect the spirit of the land by using a cigarette, mak and betel. However, this depends on the house owner. If the owners do not do it, the craftsmen could not perform this ritual instead of them.

Somsook Gudjid, 27 December 2015

[…] When they started extending the house, my father had to perform the ceremony to tell the spirit of the house and the land spirit that we will come to build some parts of the house; then, my father was the first person, as the owner, to start demolishing some parts of the cooking space. After that, the craftsmen could start demolishing and rebuilding the house. The Karen elders still believe in the spirit, while the new generation rarely cares for this belief.

Lonnachai Ladoa, 36 years old, 22 September 2016

Some households do a housewarming after completing a new house. For me, I just prepare rice, food and a liqueur […] Then, I invite neighbours to come to join us in the food.

Sainam Buasri, 27 December 2015

Additionally, in some cases, if some households do not perform the house building ritual, the house spirit might be angry and might also react by causing an unfortunate event or unhappiness, even death. Lonnachai Ladoa explains this phenomenon.

> *In the last year [2015], Jorkeu demolished his old house and built a new house, but he did not do the ritual practice to pay respect to the spirits […] after his new house had been completed for around two months, Jorkeu died without cause. […] The last night before he died, he drank with neighbours in his house, then in the morning, he became death. This evidence made many people think about the spirit of land and the house, particularly the elderly Karen.*
>
> Lonnachai Ladoa, 35 years old, 22 September 2016

The house is a visualised object that is interconnected with the spirit, although it is a phenomenon beyond the realm of scientific understanding. Plu tells me more about a mythical story of home.

> *[…] When we do the eating rice ceremony, we cook the first rice and then put some rice on the whetstone so that the whetstone eats first. After that, we throw some rice balls into the fireplace to pay respect. This is because we use fire to burn to prepare for farming. We therefore give them rice before us. Before cooking rice, we have to use the fireplace to cook. Before farming, we have to burn the fields with fire. After cooking, we have to throw a little rice ball into the fireplace to pay respect.*
>
> Plu Jeebong, 40 years old, 27 December 2015

> *[…] In an abandoned house, we cannot live alone inside. When you get close to the house, you may feel some spiritual energy. That is the spirit and ghost, they live in the fireplace. We believe that when you cook, many things are burned on fireplace, and their spirits are still in the fireplace […] somebody said that we could sleep alone in a cemetery but we cannot sleep alone in an abandoned house […]*
>
> Plu Jeebong, 41 years old, 7 September 2016

Regarding cosmic relationships, many households believe that the east is the direction to the goddess; on the other hand, west is the unfortunate direction. Thus, when the Karen sleep, they usually position the head to the east as the side associated with the rising sun. This also indicates the interior of the Karen house, representing social and cosmological systems as traditional beliefs and living. Many Karen believe that the front of the house should face a fortunate direction such as the east. For example, Sombat Chaya has changed the front of the house from the west to the east (Fig. 6.57–6.60). To some extent, it can be said that the house layout relates to the supernatural forces and the orientation of settlements, while some households rotate the house to face the path; they think more about function rather than cosmic relationship, such as with Lee Pugad's house (Figs. 6.54–6.56).

Belief in the spirit of the house seems far more essential than in Western belief. This belief is not just a matter of the spirit of the house, but also determines the rebuilding

process. Most Buddhist and Christian Karen all believe in house spirits in general. Also, Buddhist Karen do not deny the gods of rice, rivers, hills and forests. As such, it can be said that the Karen house reflects the cosmic order representing traditional belief. The form of house layout is likely affected by cultural belief in parallel with material and budget factors.

The concept of the Karen house is entwined with the cosmological perspective, particularly in relation to their belief and the spiritual world. However, some of the new generation believe in the cosmos in the house. Their beliefs reflect the cosmic order within the dwelling. Many rituals and observances have been developed that manifest the desired order. These rituals have a spatial dimension either in terms of a behavioural expression or in the way they physically organise space. For example, Sombat Chaya believes in auspicious directions; he changed the front of the house from the west to the east. Many people still believe that before and after building a house, one should carry out the ritual to inform the spirit of the land and house.

In summary, the Karen house is something more than the living, talking, eating and sleeping place of the families; it is the centre of their domestic life, worship, belief and spiritual life. Regarding the aspects of rituals associated directly with the establishment of the dwelling, we can see that the house becomes the place that connects between the physical world and spiritual world, including the place where religious belief is organised. In the same vein, their beliefs and worldview are an integral part of the culture; both reflect the attributes of Karen society.

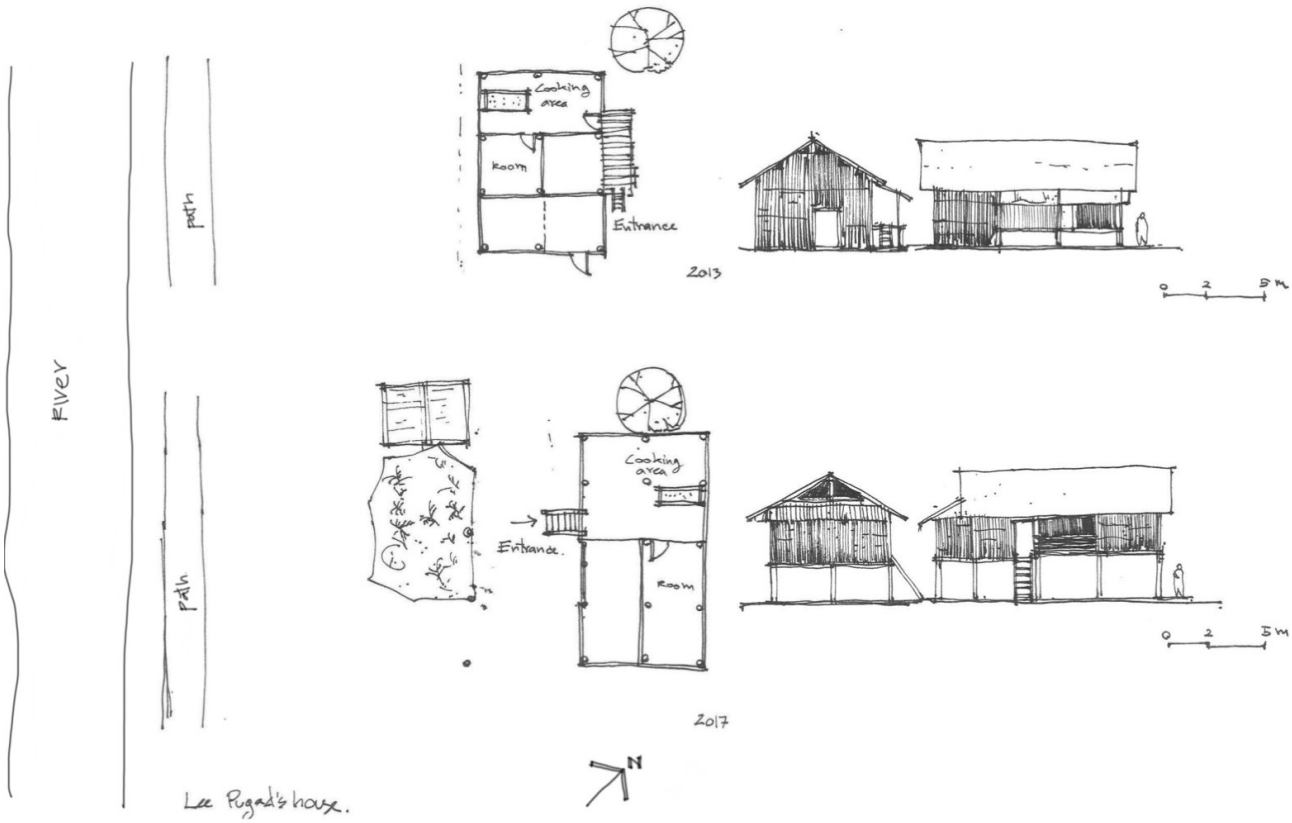


Fig 6.54 Lee Pugad's house

Comparison between the houses in 2013 and 2017. Lee rebuilt the house by rotating the front of the house to face the path and river.

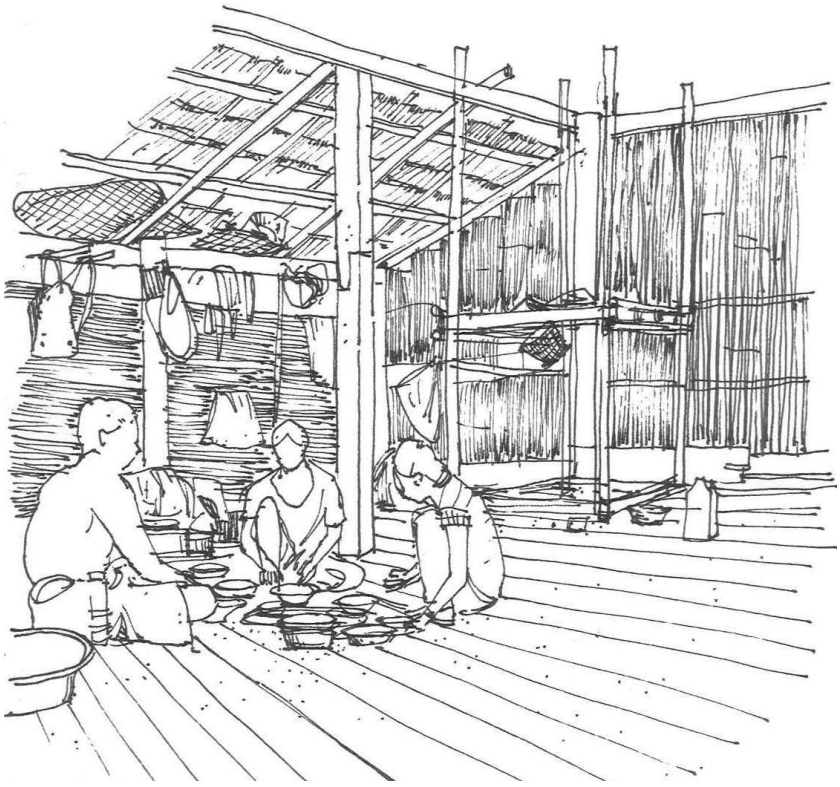


Fig 6.55 Inside the new house of Lee Pugad

Lee Pugad rebuilt a fireplace in the centre of the cooking area and next to it is an eating space. Also, the wooden floor came from the old house.







A house in 2013 before demolition.
The house was demolished in 2016. We can see the spaces and structure inside the house.



View of the back of the new house. It completed in 2017. Most of the material came from the old house.
.



View of the front of a new house. A huge space was created underneath the house to keep agricultural tools and for feeding animals.

Fig 6.56 The building process sequence for Lee Pugad's house

Lee Pugad's house before building a new house (the two upper figures) and after building (the two lower figures). As can be seen in the figure, the space under the house has been changed. More space was created under the house to keep agricultural equipment and for resting. The roof is still made of galvanised metal sheets. The walls are made of bamboo and the floor is made of lumber. Noticeably, they still rebuilt spaces and components similarly to those in the old house, particularly the fireplace



Fig 6.57 Sombat Chaya and drawing from the workshop in December 2015
Sombat shows the drawing from the workshop. The drawing compressed the house form and spaces together under the needs and constraints. The design was a modular plan to reduce waste and the cost of materials. The elevation shows the ideas about the house form and roof.

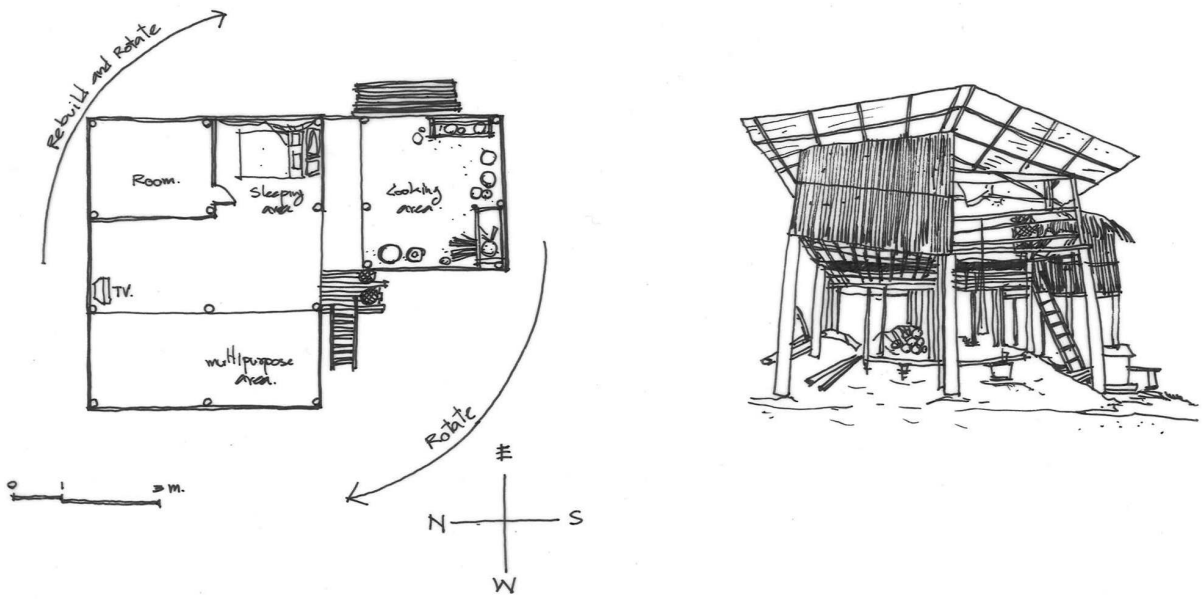


Fig 6.58 Plan and front of Sombat Chaya's old house
His old house faced west. Sombat Chaya rebuilt and rotated the house plan by changing the entrance to face east.

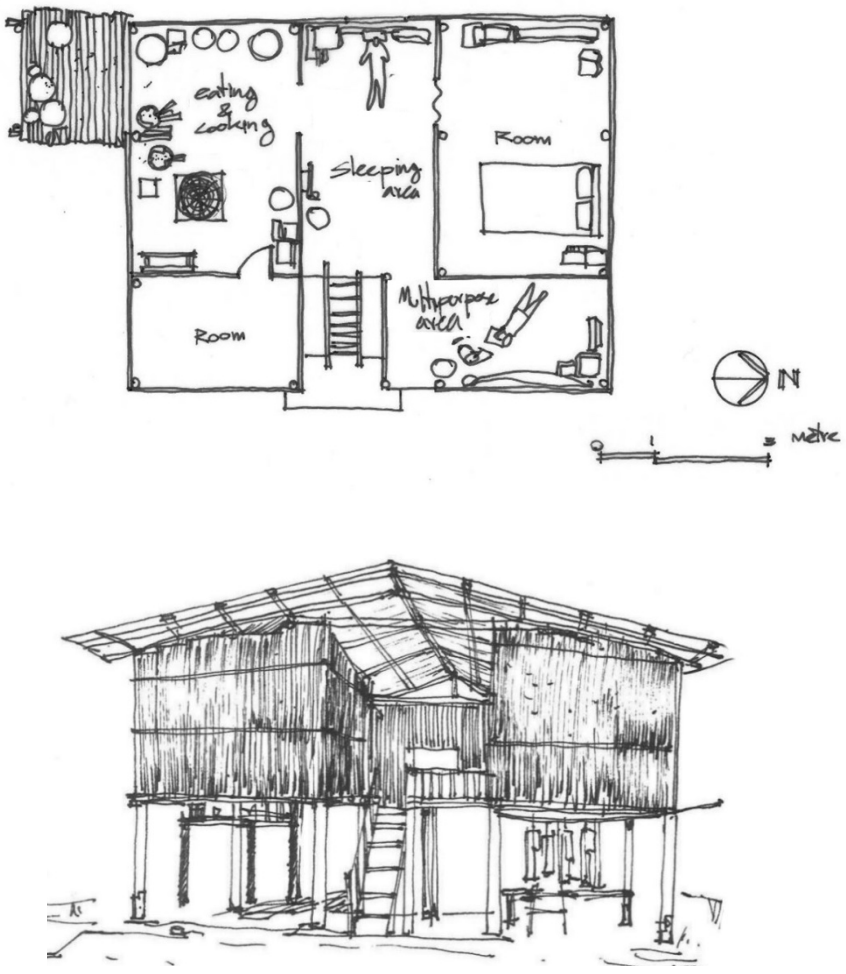


Fig 6.59 Plan and front of Sombat Chaya's new house
The new house faces east.











Sombat's house in 2014. The front of the house faced west.
He demolished the front of the house. Then, a couple of weeks later, he and his wife demolished the whole house and built a small shack to live in and keep items.

They built the new house structure, spending a week doing so.

After building the structure, Sombat spent a month to complete the house components. As can be seen in the figure, the back of the house faces west.

Fig 6.60 Rebuilding process of Sombat Chaya's house

6.4.11 Births and birthing houses

The village is located in the national park, which is further away from the hospital. Although there is a local public health centre in the village, it can only help to cure patients of some basic diseases. The point is that there is a high birth rate in the village, which can be seen by the fact that 50 percent of the population consists of children. An interesting question is how the Karen deliver babies and how this relates to the dwelling. This section will therefore explain how delivering babies relates to the house spaces.

Traditionally, the pregnant Karen women will have their babies delivered in their own houses by creating a birthing or delivery house near to the main house. The internal spaces of a delivery house are not physically different from the common Karen house. The spaces are divided into two areas such as the fireplace and sleeping or delivery areas. However, it is unclear how the traditional delivery assistants are trained, but most likely come through observational experiences and pass these on from generation to generation. The traditional delivery assistant, who is usually a midwife, is called "*Mo tamyae"* in the Thai language. In some families, the father or husband will deliver the baby of his daughter or wife. Typically, in the birthing house, they allow only the husband, parents and close relatives to assist or stay inside during the delivery of a baby.

When the infant comes out, the midwife will cut the umbilical cord with a sharp piece of bamboo, and it will be wrapped up in a piece of clothing and packed into a bamboo tube. After that, the husband will bring it to a grave underneath a tree; this tree is bonded spiritually with the newborn baby. Meanwhile, this tree has also already preserved as a part of the baby's life. If this tree is cut down, the parents must carry out the ritual to call the spiritual baby back. Otherwise, it is believed that the baby will get sick and become unfortunate.

After giving birth, the mother will stay in the birthing house in front of the fireplace to treat her wounds through its warmth. A couple of months after delivery, the family will adapt the delivery spaces for living and cooking or other activities, depending on the householder. However, the progression of technology has contributed to an increase in the number of people having their babies in the hospital in town, because they feel comfortable and it is not necessary for them to prepare any equipment, reducing the risk. Meanwhile, the better technology can also save their babies. Today, Karen born in the village have a birth certificate issued by the state officials and have an accurate birth date, while in the past they got nothing.



Fig 6.61 Joshor Kreajee (left) and Meena (right) are the midwives of the village

Joshor Kreajee and Meena always work together. A doctor from the town comes to the village monthly and provides them with the basic equipment to help the Karen deliver babies themselves.



Fig 6.62 Birthing house of Gib Tonnamped and her baby

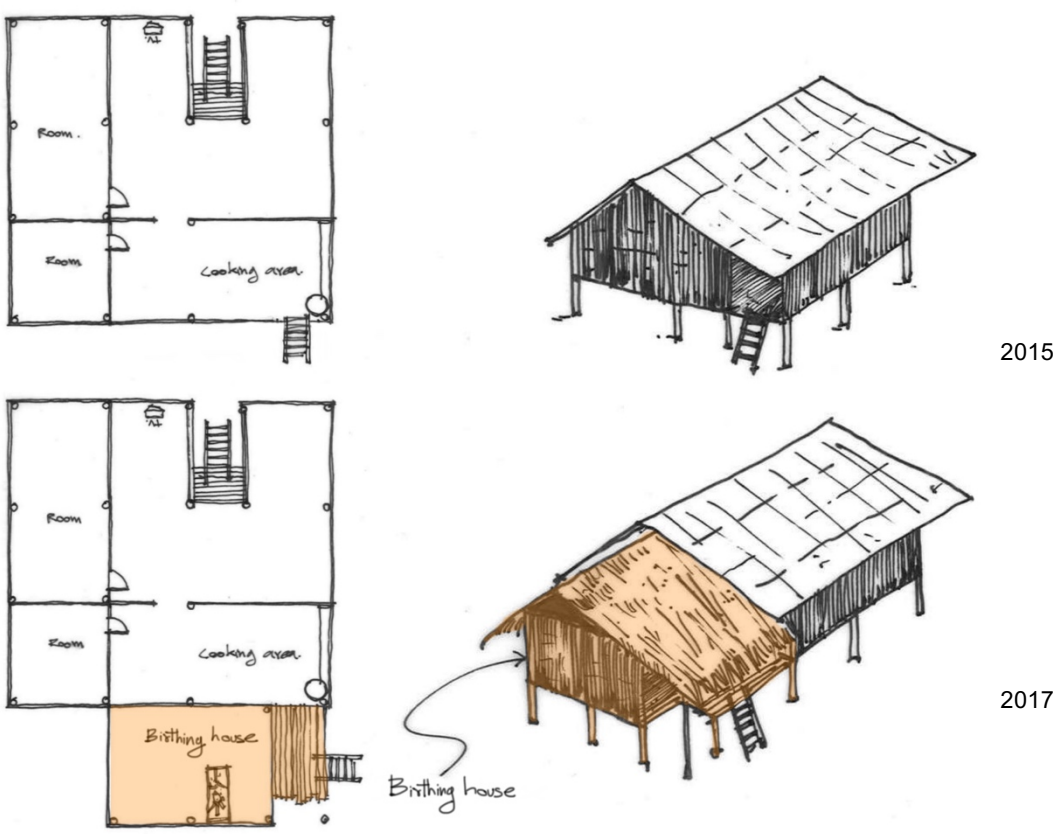


Fig 6.63 Birthing house of Gib Tonnamped

In 2017, Gib built a birthing house for giving birth to her baby. It was located at the back of the present house.



Fig 6.64 Internal space of Gib Tonnamped's delivery house

The delivery house consists of two areas: the fireplace and the sleeping area. The fireplace was used to boil water and prepare equipment and give warmth to mother and child. After the delivery, it is incorporated into the main house.

6.4.12 The role of gender

Gender roles refer to the social attribution and relationships of the Karen who determine the role. They also relate to the behaviour and activities in the building process considered by male and female Karen. Traditionally, male and female Karen have different roles, men work as the providers for the family and women are seen as the housekeepers. Male Karen learn to manage their physical and social environment through their physical strength; for example, men typically work as farmers in the fields or labourers in the town. On the other hand, female Karen usually inform the model of control of spaces in the house; for example, the cooking area is apparently one of the places that female Karen dominate. Moreover, in many of the households, the female has influenced the housing design; this could be seen in the housing design workshops (Fig. 6.65).

Today, gender roles in Karen society have changed to some extent, in that some women work outside the house in order to share family responsibilities. In the same way, men are sometimes also becoming involved with raising their children. In other words, for some families, both men and women are providers. However, it does not mean that they have equal roles; in fact, there is still a division between the gender roles. For example, the traditional rice celebration is held between January and February to give thanks to the rice goddess and ensure that they will obtain enough rice to consume in the next season. Female Karen will scoop paddy rice into the basket, while male Karen will hold the basket (Fig. 6.66). The female is the dominant in the house. This phenomenon can also be seen in domestic spaces such as the cooking space.

Additionally, the structure of the language creates the male and female Karen roles in their culture. The important argument is that language regarding mothers is the political component that expresses power and privilege in society. Many words are intertwined with the dominant social belief system. For example, in the Karen world, they often use the term *Paeu* in the Karen language, which means “mother”. It is used to denote the highest respect of things or places, such as the rice goddess called *Paeu-bi-yo*, which means “mother of rice”, the land goddess called *Paeu-song-tri*, which means “mother of land” and the river goddess called *Paeu-na-ting*, which means “mother of the river”. These words are considered as the symbolic level that shows the aspect of gender roles in society. Moreover, naming gods is an important aspect of the way in which the Karen view the world and society. It reflects the nature of the society, where a female is dominant both in the physical and spiritual world, although a male is the leader of the family.



Fig 6.65 Female Karen attended the housing design workshop in December 2015



Fig 6.66 The traditional rice celebration by Tongdee Chaya's family in 2017

The picture shows gender roles in Karen society. A male Karen works as a provider or worker, while a female Karen works as a manager. This photo shows the traditional rice celebration by Tongdee's family. Paying homage to the rice goddess will be performed before cultivating and after harvesting rice. However, the celebration has been declining in recent years, as fewer people grow rice. This traditional celebration relates to rice and cultivation, to ensure that the family will have good harvests and luck for the next season. Photo: Montha Ajchariyakul

6.4.13 Designed by women and built by men

As mentioned, gender roles influence the re-housing process. This section therefore aims to examine the evidence of gender roles in that processes. The Karen houses, to some extent, are controlled by female Karen. This aspect is shown in the housing design workshops. Both workshops in 2015 and 2016 demonstrated that females attended the workshops to design the houses, just the same as the male Karen. However, this does not mean that we ignored the men's role in housing process. We aimed to point out how women have an influence in the process. The house spaces also show many aspects of gender relations. In the traditional Karen society, the house has strong ties to the female gender. For example, the kitchen or cooking area or internal house spaces are maintained by female Karen. In parallel, male Karen are associated with the fields and working outside the village.



Fig 6.67 The house designed by the Karen women

Many pieces of evidence confirm that women dominated the re-housing processes. This can be seen the statement below.

> "*Who designed this house?*" I asked. "*My wife ordered me to build it like this. […] She likes this form*", Dokmai responded. [This seems not to be the right answer, but we understand who controls this house.]
>
> Dokmai Chaya, 37 years old, 3 August 2016

"All house floors are the same level", Thanapol said.
"The room and living area floors will be higher than [that of] the multipurpose area", Pathamaporn interrupted.
"So, do you need to follow your wife or your [own] thoughts?" I asked.
"Hm…follow her". Thanapol said. […]
"*So, this house was designed by your wife, and you just build it following her orders*", I said.
He smiled and laughed and said *"Hm..mmm".*
[While Thanapol was trying to explain the house plan, his wife always interrupted and explained instead]

Pathamaporn Supangkul (wife), 32 years old and
Thanapol Supangkul (husband), 42 years old, 4 August 2016

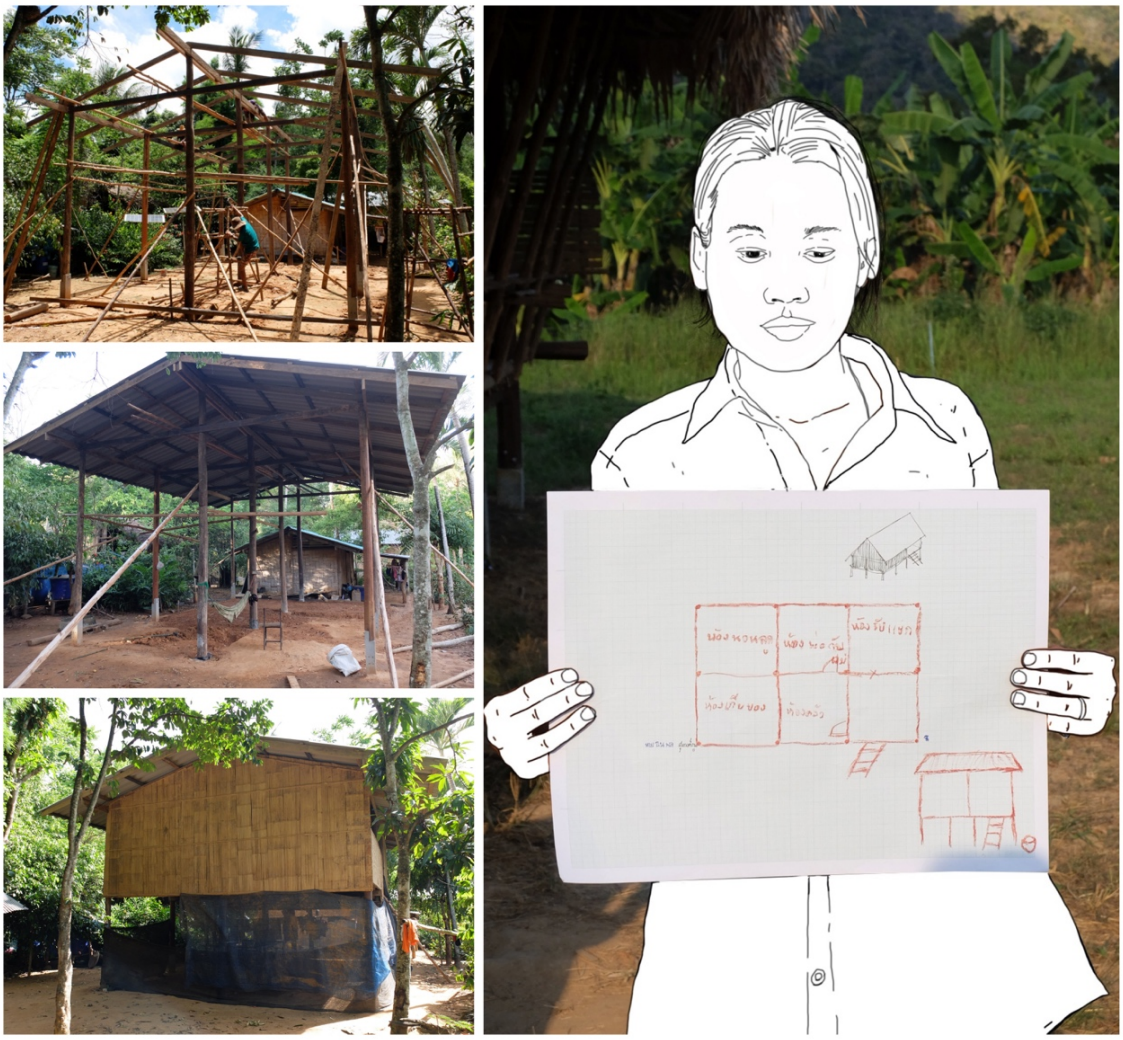


Fig 6.68 New house designed by Pathamaporn
Left: Thanapol (husband) is building the house following Pathamaporn's design.
Right: Pathamaporn (wife) attended the Housing Design Workshop in December 2015.

When women and men learn about the rebuilding processes, they usually work together on different tasks. The men learn to create the house by focusing on building techniques, while the women do the housework and help in straightforward processes; for example, cutting the eucalyptus bark or carrying the building materials.

Furthermore, the women take an active role in both design and construction processes to find solutions.

To some extent, it can be claimed that “women design the houses”. This sentence illustrates that the Karen house is the part of the image of the female Karen, showing the relationship between the female and the dwelling. Indeed, the gender relationship is reflected in the arrangement of the space and the design process. In many households, the husband follows the instructions of the wife. As such, it can be summarised that women are more involved in decision-making regarding the house design, while men focus more on the techniques and materials of the building. Table 6.3 compares their roles in the past and the present. It may be said that many of their roles are still practised in the same way as in the past. Meanwhile, there is a little bit of change, such as education and occupations.

Table 6.3 Summary of Gender Roles

	Past	Present
Education	Many people were uneducated.	All children go to school. Both men and women under 40 years old can speak the Thai language.
Occupation	Farmers. Men usually work in the fields, and women do housework.	A career is important for both partners to generate income. Men usually work as labourers outside the village. Women work in the weaving house.
Housework	Housekeeping and taking care of children are the responsibility of women.	Both men and women share the housework, but the woman does more.
Decision-making	The woman dominates the house, but the man makes the decisions on important matters.	The woman still dominates the house and the man makes the decisions on important matters. The man cannot dominate the woman.
Building house	The man builds the house and the woman helps with simple tasks.	The man builds the house and the woman helps with simple tasks.

6.4.14 Income issues

This section aims to question how income affects the ability of the household involved in the rebuilding process. Income data are notoriously complicated to collect with any accuracy. Most male Karen are farmers and workers earning unstable incomes, while most Karen women are weavers and embroiderers in the weaving house obtaining around £4 per day. However, this section aims to focus on how incomes relate to the rebuilding process rather than how much income they obtain.

A few people in the Karen village generate incomes of more than £300 per month; these are teachers, soldiers and merchants. It can be said that the majority of Banggloy households live in income poverty. Their low-income conditions are expressed in the condition of their house, in that they have less ability to obtain basic accommodation. In other words, their conditions demonstrate a pronounced lack of opportunity for a better life. The evidence of income affecting building can be seen in the case of Jorjuemi Jareonsook's house and Lami Jareonsook's house.

> Jorjuemi is unemployed. He obtains money from his daughter who works in the town.
> *"[…] Why do not you need to build a house [on a] high platform [a stilt house] following the design in the workshop in December 2015?"* I asked.
> *"Wood and bamboo are hard to find. Here, we rarely find it. We have to go into the [deep] forest to cut it. Now, a pole of bamboo is around 40–50 baht.*[23] *We have to purchase it from [bamboo cutters]. If we go to cut it ourselves, we have to spend two to four days at least",* he said.
> Currently, his house is not finished because he does not have enough money.
>
> Jorjuemi Jareonsook, 57 years old, 27 July 2016

> *This house was built 13 years ago, but the roof has been changed many times, I built it myself. […] I am self-employed in the village and around the national park, [doing] such [jobs] as cutting weeds and planting bananas. I obtain 250 baht a day […] my job is uncertain, depending on the employers.*
>
> Lami Jaroensook, 57 years old, 7 September 2016

These households lack stable income to rebuild houses. Furthermore, economic differences become evident in the building space and form of houses; also, the size, form and quality of the structure is associated with household economics. These categories reveal a clear image of the housing situation concerning the income level of the occupants. Consequently, income is a primary factor that determines the re-housing process. It challenges the requirements of standard Karen housing; in turn, it becomes a chance to think about the alternatives.

[23] £1 = 43 baht (January 2019)



Fig 6.69 Karen weaving cloth in the weaving house

6.4.15 Weaving space: income generation

There are several kinds of traditional clothing. They are woven on a backstrap loom. The fabric has various colours, patterns and functions that are still used today. However, the material has changed; natural cotton is hard to find. This section aims to discuss traditional weaving, reflecting the income, house space and tradition. In the Karen house, there is a clear distinction between the place of work, such as the weaving area, and other spaces. People will install a backstrap loom by connecting it to the fence or wall. This activity is separated by allocating specific areas for specific weaving tools. For example, this can be seen in Boonchoo's house.

> I have regularly visited Boonchoo's house. I have seen [it] gradually change. He demolished the weaving space. which was a part of the house in the north-west of the house plan. Then, he built two new buildings: the first one consisting of a room and sleeping area and a weaving area. The second one was built for his daughter. […] By observation, the three buildings are a home, separated by various activities of household members.
>
> Field notes, 25 December 2015

In the case of Boonchoo's house, he focused on the second building that was built to replace the demolished one. This building is used to generate income to support the family. Around 50 percent of the second building's area is a weaving space for the personal activity of and income generation by Boonchoo's wife.

It can be seen that the weaving space influences the spaces that are dominated by women. Women usually require small spaces for weaving traditional clothing. Some households have merged spaces such as living and weaving areas together and use that space according to the working time. Thus, sometimes it is a place for work, sometimes it is a place for living. Both reflect the social interaction and economics. In other words, the weaving activity creates a specific space for generating income.

The Karen weave traditional clothing to wear at important events such as weddings, ceremonies or events outside the village. Although the method seems outdated, it is well suited to the environment and material available. The appearance of the clothing represents traditional meanings that attracts outsiders' attention with the sophistication of the variety of colours and patterns. However, they have not developed the weaving of traditional clothing into the production of modern clothing; this may be because of the lack of organisation to support them.

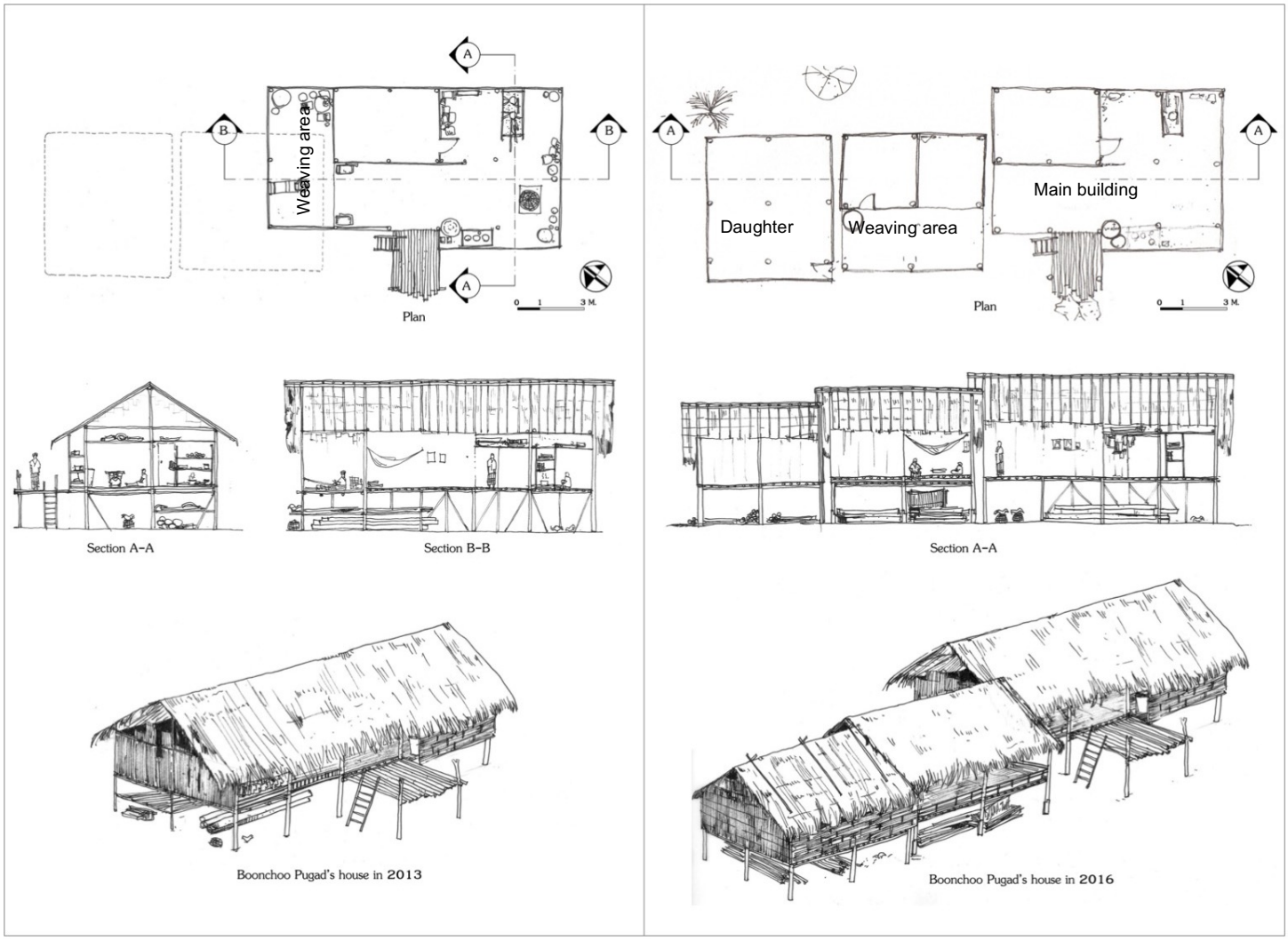


Fig 6.70 Boonchoo Pugad's house in 2013 and 2016
After re-housing, Boonchoo demolished some parts of the old building, and built two more buildings; one is for the weaving space and another one is for his daughter.

Weaving is a home-based activity that plays a role in various customs in the house. It consists of knowledge and stories that are passed from one generation to the next. Therefore, clothing consists of more than just skills and knowledge, but includes symbolic information. It also connects with other aspects of the complex culture, and displays wealth and status in society; for instance, traditional clothing has an important role in showing people's marital status.[24] It also serves ritual purposes.



Fig 6.71 Backstrap loom technique
Boonchoo's wife is weaving traditional clothes. This loom can only produce a limited width of cloth, around 30–40 cm, with a length around 2 m. Most personal weaving carried out in the house is of traditional clothing such as shirts, sarongs and bags.

[24] A single Karen girl will wear a long white shirt and a married woman will wear a sleeveless shirt of various colours and a sarong.



Fig 6.72 An example of a sheet of cloth

Boonchoo shows a sheet of cloth. The weaving process involves long sheets of cloth depending on what kind of product is required; for example, a Karen shirt consists of four sheets of fabric. A sarong consists of six sheets.



Fig 6.73 A loom is fixed to an object or the wall

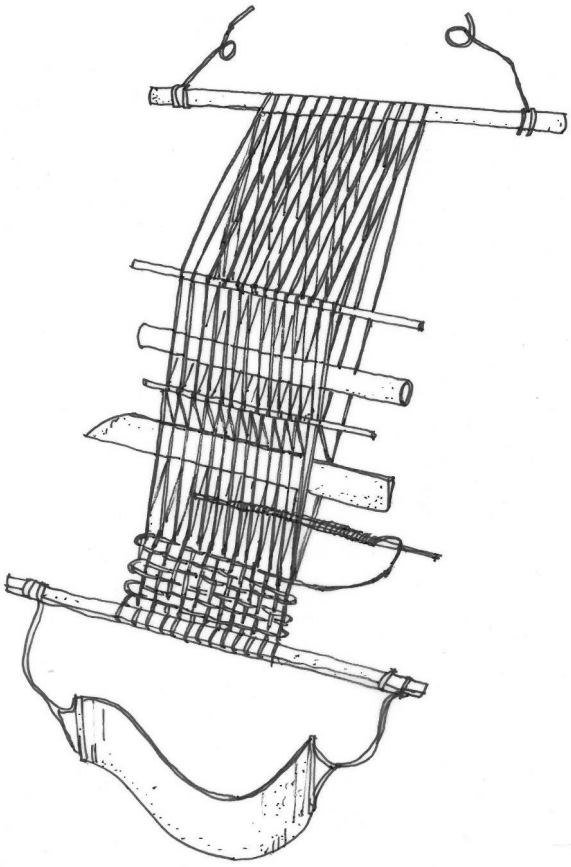


Fig 6.74 A backstrap loom

A backstrap loom is made from pieces of bamboo and wood. It is a material piece of culture representing a cultural context. It matches aesthetically with the natural resources and environment.

6.4.16 Limited budget as a challenge

The Karen obtained a chance to build their dreams supported by financial assistance from CODI. Although the Karen received a small amount of funding to implement the project, this does not mean that a small budget is always the obstacle; in other words, the budget not only provides opportunities, but also constraints of the house building processes. The funding promotes collective management rather than building individual houses. It stimulates collective working. It becomes a vital tool to improve living conditions in the people-driven process. It is flexible, accessible finance in the form of a housing subsidy. The Karen can see what they can develop and they can plan for what they need. The available financial support encourages them to learn how to plan and develop the project through collective management. As such, CODI funding is a tool stimulating the people's process to improve dwelling conditions and helps to gather people together to be a stronger group.

Within the limitations of the budget, the people create and discover alternative building techniques and processes creatively. In this sense, limited financial support challenges people to become motivated and convinces them to carry out actions; for instance, the householders must use their own building materials to mix with those from the project, while searching out the building techniques to create stronger structures. Consequently, the funding and budget works similarly to the petrol to fill a generator or machine to drive the process forward. Limited financial support challenges the Karen regarding collective management, and building materials.

6.5 CONCLUSION

This chapter has explored the building processes associated with various building factors in the Karen's habitat. A variety of methods have been seen throughout this chapter, particularly drawing and making models. Not only spatial relations have been shown, but also other building factors such as cultural, political and economic contexts. Exploring these factors provides understanding of the interaction between the Karen and their contexts. The characteristics of socio-cultural factors, such as kinship, housing needs, belief and gender are essential parts of the re-housing process. For example, building materials, skills and techniques determine the forms and spaces. In terms of community layout, this is derived from two issues: an allocated piece of land and the relationships of kinship groups. Each house is bound to each other through the marriage pattern within the group. Additionally, the role of the female indicates that women control the house spaces through the design in terms of gender and culture, whereas men are the providers and work outside the house.

Undeniably, the most obvious reason for rebuilding Karen houses is to achieve greater spaces and long-lasting houses. More spaces and durable houses are the first

requirement of the Karen. They attempt to reduce the cost by using reused materials, while the house form and space have varieties that are both similar to and different from the old house. They derive from various factors, particularly the building materials and the budget. The people attempt to survive by adapting their behaviour to fit the environment under the regulations of the national park. This indicates the fact that they share the experience of the process and the goal. This may be seen in the social aspects that affect the building process and the modified houses. In terms of tradition, this is a critical ingredient of the process, which can be seen in the myths and stories told about the spirits. Also, cosmic relationships such as auspicious directions are entwined with the building concept in relation to the Karen's beliefs and the spiritual world. Their houses indicate association with this life from the time they were born until the time they die. The house spaces are adapted to support various activities such as giving birth to a child or funeral rituals. The people still keep practising traditional culture even though they are facing the modern world.



CHAPTER 7: BEYOND THE DWELLING DESIGN AND BUILDING

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BEYOND THE DWELLING DESIGN AND BUILDING

Design is a circumstantial act. It is a battle with the nature of human, with the nature of nature, with the laws of nature, with the rules of man, and with principles. One must see all this to put it into being. Design is a material thing. It makes dimensions. It makes sizes. Form is a realisation of difference between one thing and another, a realisation of what characterizes it. Form is not design, not a shape, not a dimension, it is not a material thing.
In other words, form is really what and design is how.
Find the form and form it many designs can come–many notions and many personal acts. Design is a personal act, it is how you see it.

We must look back into the nature of man and the laws of nature. We will find very good answer there. We will find selfishness, hate, love, sincerity–all these things. We will find what is called "good and bad" and we must account for it.

(Louis Khan, 1961: 120)

This chapter aims to discuss what the results of the house design and building process are, and what form of housing, materials and techniques is appropriate for the long-term building of the Karen community. The first section aims to reconsider the house spaces and elements to clarify the changes and adaptations. Then, the next section discusses what we have learned from the building materials, techniques and structure, including investigating housing factors. This chapter ends with some reflections of the period after building houses together.

7.1 BEYOND SPACE DESIGN AND BUILDING

Design is associated with humans and the environment; when the environment changes, the house design is also adapted to fit it. Change is a normal thing. Nothing is certain. There is nothing that is unchanged, even the house. From the previous chapter, we have seen that each family has different reasons for rebuilding, demolishing and extending houses. Their designs are adapted to fit within the environment and context. This section aims to clarify the changes and adaptations to the variety of spaces and elements of the Karen house to describe the culturally specific pattern of the built form. It presents different essential parts of the house; for example, the verandah, the multipurpose, sleeping and cooking areas, and the space underneath the house and the toilet, including elements of the house such as the floor.

7.1.1 Verandah

From working together with the Karen, it can be seen that they still create verandahs, which are normally located at the front of the house as the entrance and at the back of the house. Some households do not build a verandah; they create a multipurpose area connecting to the entrance and the ladder. The verandahs are built for domestic purpose as open spaces; rarely are they enclosed with fences or spindles. Of course, its function has not changed from the past to the present. It is intended to function as a transitional space connecting the internal and external spaces. Regarding the front verandah, it is always employed to receive guests or neighbours, and also including taking a nap, chatting or eating. In addition, the front verandah opens the dwelling up to the outside as the threshold between the built space and the natural environment. It is regarded as an observation space to check or perceive what happens around the house. The rear verandah of the house is built for washing, drying and storing water. The verandah floor is usually made from bamboo-pole flooring.



Fig 7.1 Jua Jeebong's house in 2016
Jua created the verandah at both the front and the back of the house. In the morning, it is a space for resting or carrying out personal activities, while the same area becomes a sleeping area for his nephew at night. Meanwhile, the next to the cooking area, there is a rear verandah for washing and drying dishes.

7.1.2 Multipurpose area as central space

The multipurpose space refers to the area that contains a more complex layering of activities or is usually managed for multiple functions. Various activities are carried out in this space. This leads on to an interesting question of what exactly the living area is. An answer is that there is no specific space for "living". The living space is a part of the multipurpose space. It can be seen that the multipurpose area is arranged to fit with time and circumstances; for example, in the same space at different times, this space is utilised for eating, receiving guests and sleeping. This is a traditional style and the space is usually built next to the verandah. Another point is that there is no fixed furniture in the space; this allows managing the space easily to serve the various activities.

For instance, in Takinu's house (Figs. 6.40–6.42), the multipurpose space is a living space in the daytime, but in contrast, it becomes the sleeping area for five household members at night. This area is further used as an eating area for guests. In the same vein, many houses employ the multipurpose area for living, sleeping, eating and studying. It is also used to receive guests. Furthermore, it is a working area to generate

income to maintain the family. For example, Parmo Ladoa has perfect weaving skills, particularly weaving bamboo baskets (Fig 5.16).

7.1.3 Sleeping area

The sleeping area should generally be the most private and intimate space, in which people are at their most vulnerable when asleep. Comparing before and after stages in the rebuilding of houses, it can be seen that elderly Karen people prefer to sleep outside a room or alongside the fireplace rather than inside a room, although they are always disturbed by mosquitoes; whereas younger adults and children sleep both inside and outside rooms.

Most houses will have at least one room for storage and sleeping. In some households, a room is a place of storage or to keep valuable things; for instance, people usually keep clothing, money and personal things in the room. Most rooms are built for their children; then, the parents sleep outside the room. In the case of a big room, they may sleep together inside it. However, they will still sleep on the bamboo floor on a mat, without a bed. The mat indicates the sleeping space, and a mosquito net is used to protect them from insects and mosquitoes.

In terms of the process of rebuilding houses, it provided people with an opportunity to rearrange and improve spaces to suit their current needs and circumstances; for example, to create a room for sleeping. Nonetheless, such a room is not only the place in which the Karen are allowed to dream, but also the place to keep their belongings that mirror their lives. Although the room and the sleeping area have somewhat similar meanings, today we see more Karen sleep in rooms than in the past, whereas many elderly Karen still prefer to sleep outside rooms rather than in an enclosed space.

7.1.4 Cooking area and fireplace

The cooking area is the place for family meals and social relations. In the cooler month, household members use the cooking area as a living space because it is the only consistently heated space in the house, where people cook, eat and meet their neighbours. The cooking area is commonly built for multipurpose functions; for example, many Karen people use the cooking area for eating and cooking during the day and sleeping at night.

The primary function of the fireplace is to produce heat to cook foods. It is important not only because of its heating, cooking and lighting, but it also ties the family structure together. The family usually make conversation during cooking and eating in the same area in which foods are prepared. They come to sit around the fireplace in a kind of circle and talk to each other. In this sense, the fireplace becomes a device to create social bonds. The fire is the light source at night, allowing the Karen to carry out various

activities. The more the hours of light are extended, the more productive activities increase. The fireplace also is the place for rituals, representing communication with the spirit world.

From another point of view, the cooking area is interpreted as the women's area, following their role in everyday domestic life. It is seen as a social area controlled by female Karen. The activities of preparation and eating reveal the society and culture within the family between the wife, husband, children and guests. In addition, the Karen believe that the fireplace is the place of the spirit, in terms of giving benefits to every part of family life such as warmth, lighting and food. Physical changes to the location of the village contributed to changes to the fireplace when it came to burning firewood because the people used to use large pieces of firewood for the fireplace.

Today, the people have problems with firewood because it is hard to find in the forest. The shortage of long pieces of firewood has had a great impact; some Karen therefore changed their fireplace to a brazier or a gas brazier. It is not complicated to find these in the town, and they can be affordable even with a small budget. These factors have resulted in the change to the fireplace and beliefs about spirits, but this does not mean that the fireplace will be lost from Karen society. If visiting rebuilt houses, we see that the people still keep the fireplace as before. In many houses before rebuilding, there was no fireplace in the house, but after rebuilding, the people built a new fireplace. The first reason for this may be because it is something that every family can easily create by themselves. Secondly, the usefulness of the fireplace stems from the fact that it is designed for cooking. On the top shelves, there will be stored firewood, and food such as meat and dried fish to keep and maintain its quality, as well as keeping it away from animals such as chickens, rats and cats. Thus, an argument is that the lack of long pieces of firewood causes people not to want to build a fireplace. This may not be true, because people can use short pieces of firewood but they have to adjust the use of the fireplace to the current situation.

In addition, during my fieldwork, I stayed in a house where is no fireplace. It was the house of a teacher, whose house looked different from the typical Karen house. It may be said that it is a house that is used to welcome guests often, including holding meeting sometimes. He often used a brazier and gas brazier to cook for his guests. Of course, he thought that this was comfort in cooking. Furthermore, he did not have problems buying gas because he had a car and frequently travelled to the town. Therefore, it can be concluded that the fireplace is still the symbol of traditional domesticity, while the brazier becomes an item indicating an adapted life.

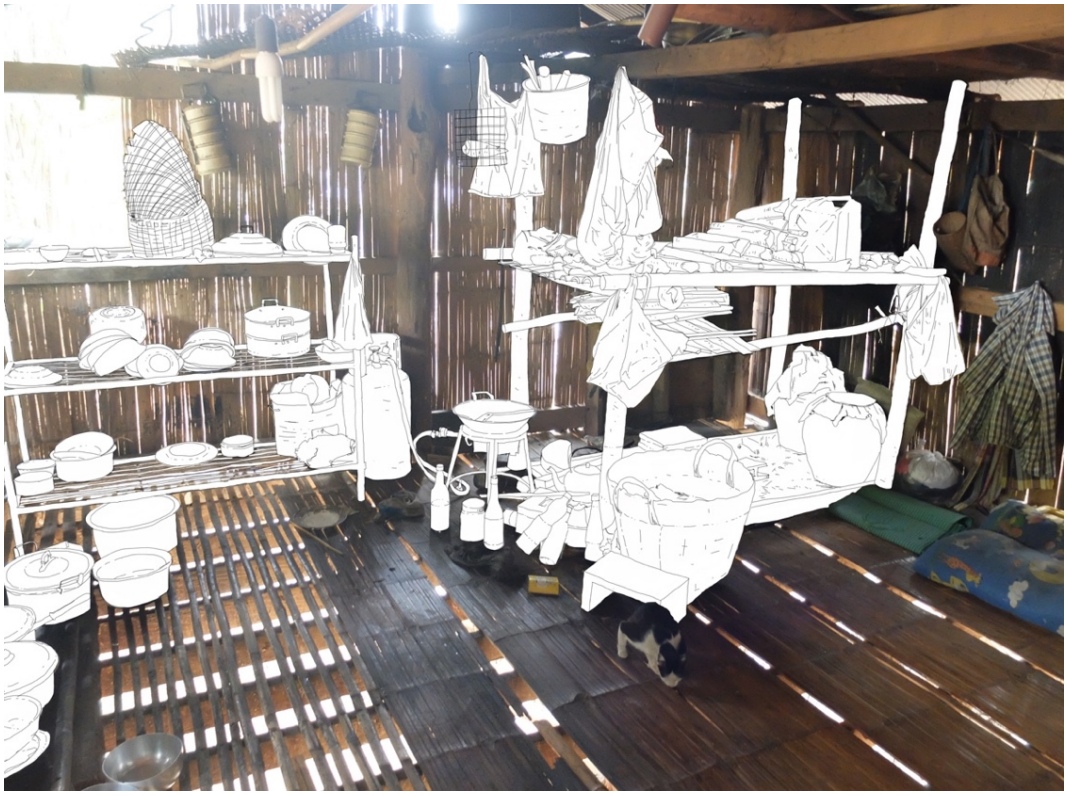


Fig 7.2 The cooking area in Jorsho Kreajee's house
In Jorsho's house, the cooking area is divided into cooking and eating spaces. Jorsho and his wife use the space beside the fireplace to sleep at night. His sleeping items are beside the fireplace.

7.1.5 Underfloor space

As mentioned in Chapter 6, the Karen usually use the space under the house to keep firewood and feed animals, such as chickens, ducks and pigs. After cooking in the morning and evening, they will throw the waste food or food scraps on the ground to feed chickens and ducks. In the daytime, some households use the space under the house for daily routines, such as weaving thatch, taking care of children or chatting with friends because of the comfortable temperature. Stilt houses allow the flow of air into spaces and provide the house with good natural ventilation. The reason to build a space underneath the house floor is not only to fulfil various functions, but also because of climate factors and protection from wildlife. Also, it is a place to store building materials such as wooden columns, fibre cement roof sheets and thatch. Regarding the scale, people build the underfloor space to fit with the human body scale of the occupant, allowing people to walk under the house and occupy the space.

Thus, the characteristics of the newly constructed house remain the same. At the same time, there are very few houses that have concrete floors on the ground. This is for easy access, to reduce the use of wood materials to build floors and to strengthen the house. It can be seen that the material and location factors of the village gradually affect the creation of and changes to the house.



Fig 7.3 Space underneath Karen houses

Many households use the space beneath the house to keep building materials and to rest in the daytime. The children also use it as a playground.

7.1.6 Toilet: outside the house

A toilet is one of the essential elements for community development; however, it was not included in this participatory housing project because of the limitations of the budget. However, this does not mean that we did not need to improve the toilet condition. By observation, while working together, many Karen prefer to take a shower in the river rather than using the bathroom. Some people also prefer to take a shower in an open space. If we look back to the past, they lived in the forest without toilets or bathrooms; they just sought some comfortable areas in which to defecate and urinate. If they needed to take a shower, they would go to the river near the village. Thus, their settlements were required to be in areas near creeks or rivers.

Today the people build toilets. They usually build the toilets separately from the house. It combines both a lavatory and a shower area. Fig. 7.4 shows toilets built from different materials such as concrete blocks and bamboo. They are roofed with shedding net and galvanised metal sheets. Comparing the traditional toilet and concrete or bamboo toilets, the differences can clearly be seen. Nevertheless, at present, the Karen do not have enough toilets for every household. Banggloy village has roughly 600 people and 100 houses, yet so far has about one toilet for three households. The reason for the shortage of toilets is that the people could not afford materials such as Portland cement and cement blocks.

Regarding the community toilet, it was built in the centre of the village near to the weaving house. It is maintained by the weaver committee, who arranged for caretakers to take care of opening and closing times and clean it. Nonetheless, this does not mean that they access the hygiene toilet because they are several factors that make toilets successful or not, such as budget, materials and water supply. Thus, it did not surprise me that many children in the village urinated or defecated in the open air behind the bushes around their houses in the early morning.

As mentioned above, the toilet was not included in the project, but this issue is an important and urgent case. It is connected to the issue of public utilities and public health systems, and to maintaining the health of the community. We realise that this issue should be researched and become a participatory project. Also, we would need more funding to support this project.



Traditional toilet



Toilet built from flat bamboo walls



Toilet built from pole bamboo walls



Toilet built from concrete blocks

Fig 7.4 The variety of toilet forms in the village

7.1.7 House floor details

As discussed, house spaces have changed and constantly rely on many factors, but it cannot be denied that the bamboo floor connects all spaces together. However, the bamboo floors in Karen houses are designed to support particular spaces and activities: walking, sitting, washing, cooking and sleeping, reflecting people's lifestyles and environment. Traditionally, the Karen typically create the house floor from bamboo and hardwood in different patterns depending on the activities that take place in particular spaces. They are divided into four styles.

Firstly, bamboo-pole flooring is designed for the verandah, such as the area used for washing, because it is stronger and easier to clean. Secondly, flat-bamboo flooring is generally used for the living area. It is commonly used in a variety of spaces in the house including the walls. People prefer to use thick bamboo to build the floor; in contrast, thin bamboo is used for the walls. Thirdly, split-bamboo flooring is used for the cooking and eating areas. This is because of people's behaviour when cooking, in that they typically throw waste food through the gaps between the bamboo to feed chickens under the house after cooking and eating. Lastly, hardwood is used for room floors, which is the most important space to protect the occupants from the insects underneath the house.

These reflect the designs associated with specific areas. It can be concluded to some extent that the discipline of floor design follows the function of the particular area. In turn, these functions also produce the floor styles. Nevertheless, after rebuilding, most Karen houses still recreate these floor characteristics because it is effective and associated with the activities of the particular area and the environment. I found a rare case where people built a concrete house floor on the ground. Although this does not occur very often, it reflects a change that may happen in the future.



Bamboo-pole flooring Flattened-bamboo flooring Split-bamboo flooring

Fig 7.5 Patterns of bamboo floors

Bamboo-pole flooring is creating by nailing poles together to form a unit. It is always built on the verandah. Flat-bamboo flooring is produced by splitting the bamboo poles, removing the diaphragms from the poles, and rolling and flattening them. The poles of bamboo are nailed together to make a floor. This type of floor is always used for the living, sleeping and multipurpose areas. Split-bamboo flooring is created by splitting bamboo poles into several lengths of strips. It is fixed together by ropes, rattans or nails. This type of floor is always laid in the cooking space.

7.1.8 The ladder: a vertical space

Physically, the ladder is the vertical space that connects the ground and the house floor. There are three types of ladder: bamboo, eucalyptus wood and hardwood. Some of the change of ladder is also associated with the house structure; for example, a wooden ladder is often found with a timber house structure, while bamboo and eucalyptus wood ladders are found in eucalyptus wood and bamboo structures.

The common Karen ladder has high rungs is built with an odd number of rungs. The Karen believe that an odd number will bring fortune and goodness, and also bring wealth and peace to the family. In the same vein, the Karen believe that evil spirits cannot climb a ladder with an odd number of rungs; thus, the ladders of Karen houses have always had an odd number of rungs (KBDDF, 2010). Also, a hardwood ladder reduces the height of each step allowing people to use them more easily and safely (Fig 7.6c). However, not all houses are built with a ladder with an odd number of rungs, particularly those of the younger generation; they do not believe as their elderly relatives do. Numchock Jaroensook mentions this phenomenon.

> *"Do you believe the rungs of the ladder should be made with an odd number?*" I asked. *"No, I do not believe anything when I build the house. When I demolish the house, I just demolish it, I do not have any ritual ceremony",* Numchok responded.
>
> Numchock Jaroensook, August 2017

Furthermore, the ladder is an object that acts as a signal to people visiting the house. A ladder can be made to say "out" by removing it from the entrance and putting it somewhere else. It acts as a sign of absence when the Karen are away from the house. Consequently, there are two meanings of the ladder. First, it is a transitional space or bridge connecting the vertical distance between two floors: the bamboo and earthen floors. Second, it is a bridge connecting the spiritual world and the physical world.



Fig 7.6 Improvements to ladders
Traditional bamboo ladder (a), eucalyptus wood ladder (b) and hardwood ladder (c)

Table 7.1 Summary of Changes in Materials and Activities

House spaces and elements	Past		Present	
	Materials	Activities	Materials	Activities
Verandah	Bamboo-pole flooring Flattened-bamboo flooring	Chatting, washing, domestic purposes, receiving guests	Bamboo-pole flooring Flattened-bamboo flooring	Chatting, washing, domestic purposes, receiving guests
Multipurpose space	Flattened-bamboo flooring	Sleeping, eating, receiving guests	Flattened-bamboo flooring	Sleeping, eating, receiving guests
Sleeping area	Flattened-bamboo flooring	Sleeping (open space)	Flattened-bamboo flooring, wooden floor	Sleeping (open space)
Room	Flattened-bamboo flooring	Storage and sleeping (preferring to sleep outside the room) (some houses have a room, some do not)	Flattened-bamboo flooring Wooden floor	Storage and sleeping (elderly and parents prefer to sleep outside the room, children sleep in the room)
Cooking area	Split-bamboo flooring	Cooking	Split-bamboo flooring	Cooking
Fireplace	Bamboo	Fireplace is the heart of cooking area.	Bamboo Some households use gas braziers and braziers	Fireplace is the heart of cooking area
Underfloor space	Earthen floor	Resting, feeding animals, storage	Earthen floor (some households build concrete floor on ground)	Resting, feeding animals, storage
Toilet	Bamboo, earthen floor, anywhere in the forest (outside the house)	Urinating and defecating (taking shower at the river)	Bamboo, concrete, concrete blocks, (outside the house)	Urinating and defecating (taking shower at the toilets and the river)
Ladder	Bamboo ladder		Bamboo ladder Eucalyptus wood ladder Hardwood ladder	

7.2 LEARNING FROM BUILDING MATERIALS, TECHNIQUES AND STRUCTURE

7.2.1 Building materials

It is undeniable that the Karen house is built in simple gable form by employing local materials around the village supporting ecological ideas. The Karen traditionally live in harmony with the environment and respect nature. It is widely known that the vernacular house is itself sustainable, based on the local, cultural and technological environment.

The local building materials such as bamboo and wood offer a range of sustainable options to the Karen; in turn, employing local materials to promote sustainable building today is a challenging task under the strict regulations. On the other hand, roofing materials such as galvanised metal sheets and fibre cement roof sheets have a clear role and performance that the Karen accepted and used them widely. Moreover, concrete footings had a clear purpose to help strengthen wooden columns including protecting them from termites. It can be seen that the role of industrial materials today is influential and accepted in terms of building strength. However, the people do not neglect the use of local materials for construction. Adequate use of local resources is a strategy to increase sustainability and reduce the cost of construction. Local materials and construction provide people's preferences with simple elements.

When referring to housing sustainability, it may be understood regarding ecological, economic, technological, cultural or social sustainability. In contrast, a critical constraint of Banggloy village is access to materials in the forest, mainly hardwood. This is because they lack the power to negotiate to use their resources in the forest. Their option is therefore to buy building materials from the town, except for bamboo. This has become a controversial issue: does buying wood from the town to build houses promote sustainable building for the people who live in the forest? I would say that it may be not sustainable in terms of the cost of building materials. We paid much money for the materials' transportation from the town to the village. In addition, most villagers have to buy some industrial materials to sustain their houses. The main reason is that they are unable to bring natural materials from the forest to build houses as they did in the past because of the regulations of the national park. Therefore, it can be claimed that the unsustainable construction process is the result of the government's policy that tries to limit the use of materials in the forest.

7.2.2 Building techniques and structure

As seen in the previous section, the Karen houses are built with simple forms and spaces. If we are comparing houses before and after the new construction, their old houses were built from bamboo and small posts. This led to the length of posts being shorter and people used bamboo supporters to support beams between posts. After rebuilding, they built simple modular plans and forms to reduce waste. At the most basic level, they designed houses within similar dimensions for structural framing purposes, such as the joints and beams. The column span is around 2.5–3 metres depending on beam size.

An advantage of designing for modular column spacing is to reduce timber use through minimal waste. Also, a simple form costs less to build; simple configurations require minimal cutting and fitting of building materials (Friedman, 2013). Thus, the amount of wasted materials is reduced. We implement house design and material selection carefully, leading to achievement of cost savings. This is not only an efficient use of materials, but also reduces the labour requirement. In terms of building techniques, the use of a variety of building materials has resulted in the need for combined techniques to build houses. We combine traditional techniques with contemporary ones. This reflects the solution under the constraints.

If looking at the physical structure, the Karen house structure is divided into three main parts: the roof structure, the body of the house and underneath the house. The gable roof structure provides proper ventilation underneath the roof. The body of the house structure is raised above the ground to protect occupants from animals and also to provide proper ventilation, leading to a cool house. The stilt house provides space under the house to protect against animals as well as giving people an area for resting and storage. Also, domestic livestock such as chickens or pigs freely move underneath the house.

Additionally, the bamboo wall and floor are physically realised as housing elements to enclose spaces, and they have an ability to protect people from the climate and animals. This creates understanding to embody the Karen house style, where we do much to enter the world of imagination. It is fair to say that the roof form, the bamboo wall and floor, the space underneath the house and the ladder are recognised as the basis of cognition or understanding of the Karen house style.

As mentioned, few houses are built with a concrete floor on the ground because of individual preference and availability of building materials. However, the overall picture of the community still maintains the use of similar building techniques and structure. They combine individual, social and cultural experiences to construct the dwelling. These patterns produce a language of spaces, forms and structure.

Table 7.2 House Structure

House Structure	Materials	
	Past	Present
Roof	Bamboo structure Thatch, grass, leaves	Wooden and timber structure (more rarely, bamboo structure) Thatch, grass, leaves, galvanised metal sheets, fibre cement roof sheets
Wall	Bamboo structure Vertical bamboo pattern Horizontal bamboo pattern Woven bamboo pattern	Eucalyptus wood structure Vertical bamboo pattern Horizontal bamboo pattern Woven bamboo pattern Concrete block wall
Floor	Bamboo structure Bamboo-pole flooring Flattened-bamboo flooring Split-bamboo flooring	Eucalyptus wood structure Bamboo-pole flooring Flattened-bamboo flooring Split-bamboo flooring Wooden floor Concrete floor
Lower structure	Bamboo and small wooden columns	Concrete footings and strong wooden columns

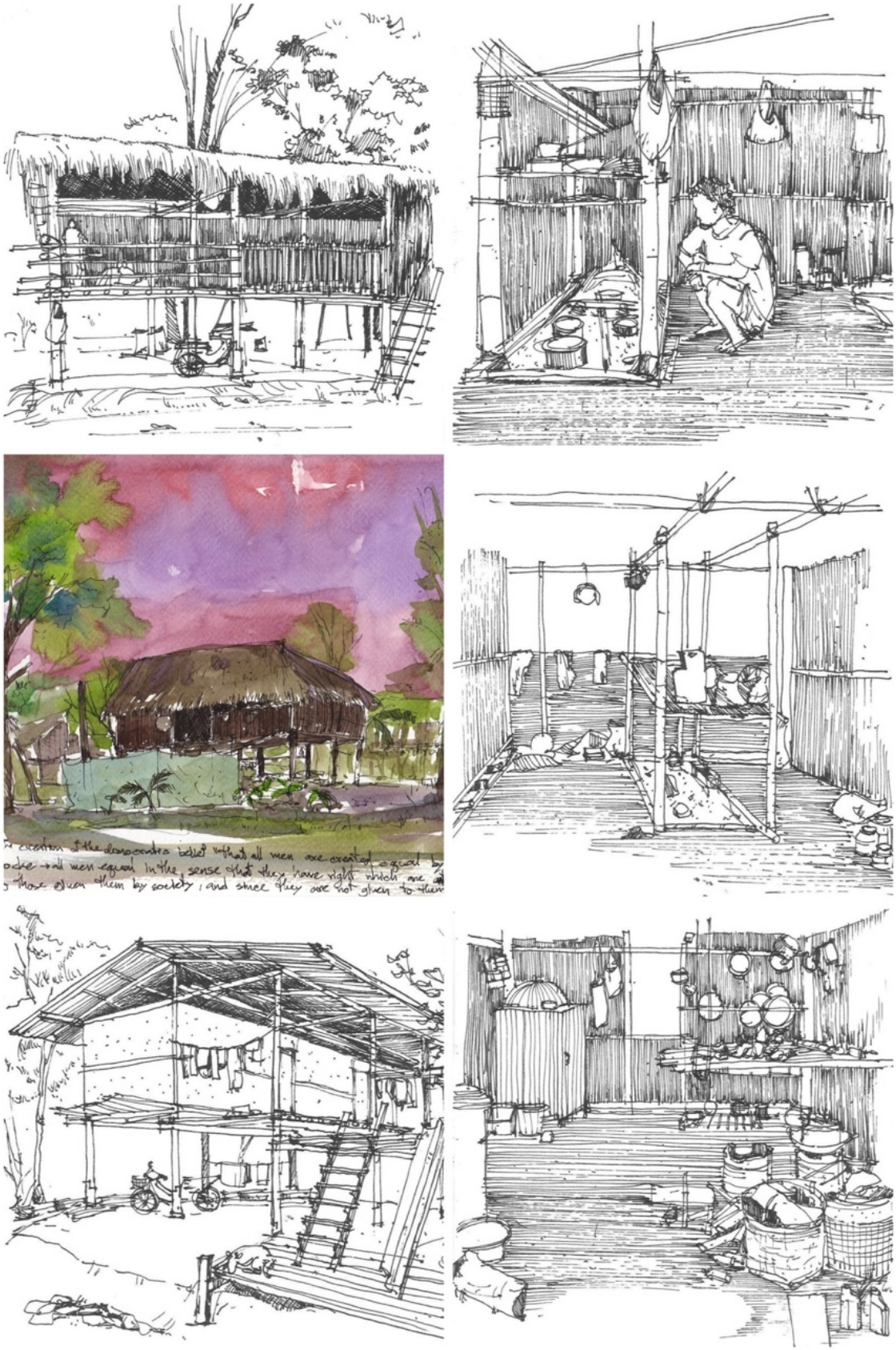


Fig 7.7 External (left) and internal (right) house forms

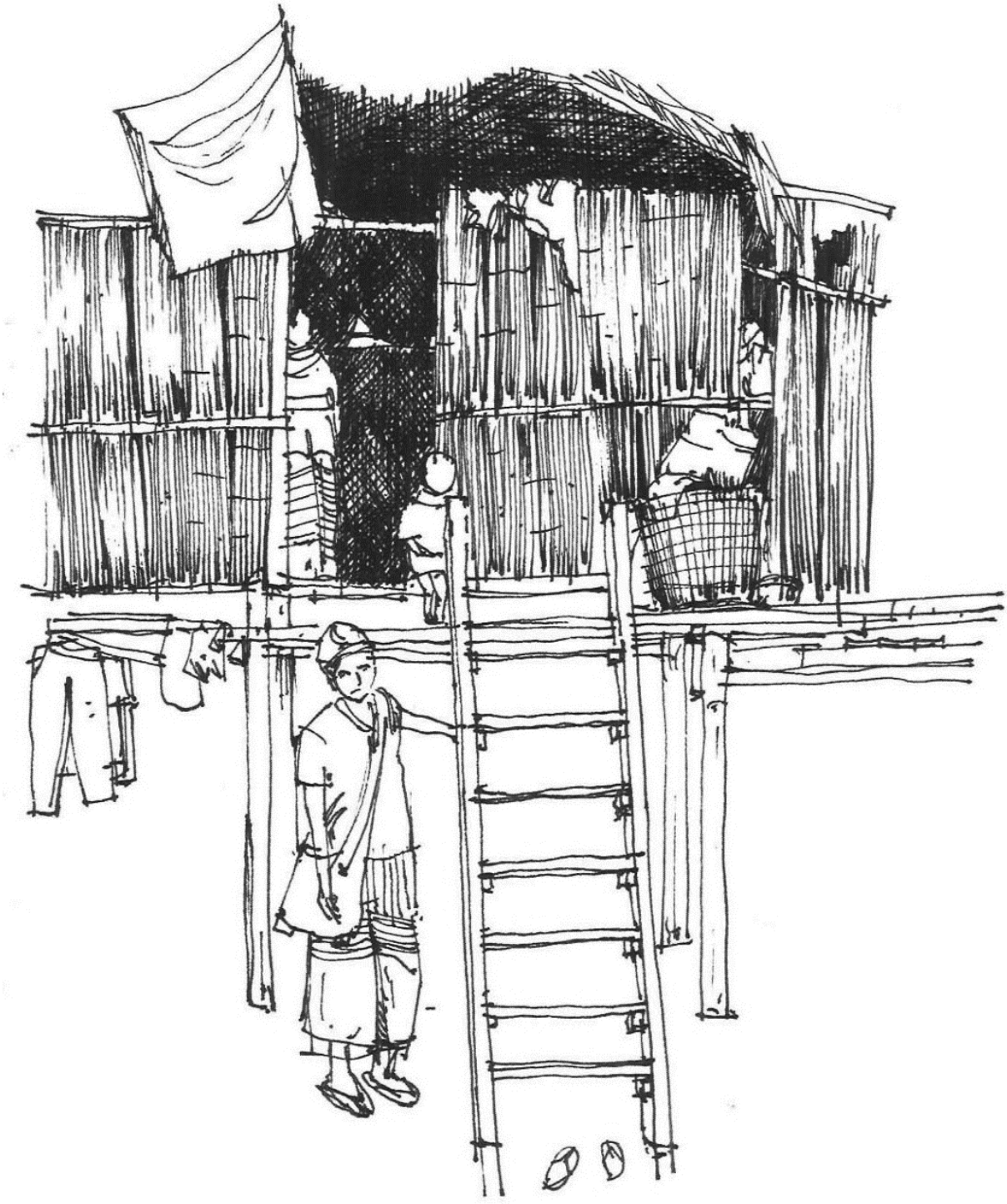


Fig 7.8 Space underneath house and ladder

When accessing the Karen house, we perceive the space underneath the house and that we have to climb a ladder to enter the house. This arouses the senses before accessing the house.



Fig 7.9 Soitong Kreajee's rebuilt traditional Karen house

The result of the combination of individual, social and cultural experiences leads to spaces and forms with which Soitong feels safe and comfortable. The rebuilt house form shows the spaces and elements that she is familiar with, while the interior of the new house is almost the same but she has extended a multifunctional area for relaxing, sleeping and living.

7.2.3 A variety of building factors

This part aims to summarise the components and the expression of building factors through a model at both individual and group levels that influence change and adaptation in the Karen habitat. This indicates the relationship between variables such as socio-cultural, economic, political and environmental issues that influence the building process.

Culture is a fundamental factor in the understanding of the Karen house. For example, the family structure, kinship group, social network, gender roles, religious beliefs and building materials are essential factors to identify the Karen house. These factors reflect the expression of house building. Building and extending the house becomes an option to improve living conditions. Unavoidably, housing needs and the shortage of accommodation are primary factors that influence dwelling size and spaces. Also, physical changes to the house form aim to improve the quality of materials and structure. They combine local and industrial materials to respond to behaviour, climate and construction. On the other hand, new building materials challenge the traditional and modified forms. The quality of the structure is related to the standard quality of the material and becomes the priority over other factors. Regarding building technique, this usually comes together with building materials that unavoidably influence the house form, particularly the house style, based on mixed building materials and methods.

In terms of kinship groups, these shape the community layout and depict a strong social network. The kinship group plays an essential role in the building process regarding social relationships, such as sharing the house space and the plot of land. Tied networks are the relationships between people to achieve economic exchange and reinforce the neighbourhood. Furthermore, the role of gender has both a constant and variable component; for instance, changing women's roles to increase the family's income, while men help women to take care of children. Some changes have an impact on dwelling systems, such as generating income, preparing foods and taking care of children. However, in the Karen culture, a female controls both the physical and spiritual world, although a male is the head of the family.

The economic issue is the critical constraint of the rebuilding process. It refers to both funding and household incomes. Unavoidably, household income affects the ability of the rebuilding process in terms of affordable building materials. Income data has shown that the Karen have had unstable incomes relying on agricultural products, labour wages and traditional products. On the other hand, receiving the funding to rebuild the house is a chance to promote collective management and building. This encourages the collective group rather than individuals. It becomes a drive mechanism to strengthen the group going forward together.

Religious beliefs and practices are carried out as part of the Karen culture, and are associated with the building process. They are often seen as being interconnected with life and living. The connection can be seen in the Karen's spiritual beliefs, and their relationship with the supernatural and the cosmos. These include their rituals and worship practices, which are the action values that describe the tradition and activity system, such as an auspicious direction and the spirit of the house. Thus, the aspect of rituals and cosmological perspectives is associated with the establishment of the dwelling. In turn, the house becomes a home by connecting the physical and spiritual worlds, through such events as giving birth and holding funeral ceremonies in the house.

The role of external organisations has an influence, directly and indirectly, on the Karen community. They are involved in community development to plan and act to achieve its goals by supporting the financing and the housing programme. Although the Karen have fully managed the housing project, the park officials have power over the project and have the legal power to inspect the project. There are therefore various political issues under the national park law that influence the rebuilding and farming processes. For example, the law declares explicitly that the national park does not allow anyone to occupy the forest and hunt animals or wildlife. Generally, the national park's policies aim to preserve and increase the forest areas. The preserved forest is a priority of their mission. Hence, the rights of the Karen to manage their traditional resources are controversial issues and the scarcity of land has forced changes to their livelihood, challenging their traditional life. As a result, they have suffered spiritually, physically and economically from this policy.

Typically, their natural environment is composed of the forest, river, hills and plants, while their current settlement is allocated by park officials. The surroundings provide the setting that encompasses their spaces, including facilities, homes and built environments. These elements also include social interaction, activity systems and rules as part of the environment and directly relates the environment to values, ideals, tastes and needs (Rapoport, 2005). It links houses to the landscape and all kinds of exterior and interior furnishings. It may be said that the Karen settle their houses on the modified landscape as the result of the external organisations' decisions.

As described above, the conceptualisation of the re-housing process derives from the relationship between building factors. To understand how people's dwellings are formed and what they think, we need to combine and investigate all the factors together. The conceptual design shows the mutual relations between socio-cultural, economic, political and environmental factors, and each factor consists of many sub-factors. This model shows an approach to how we can understand the formation of the re-housing process.

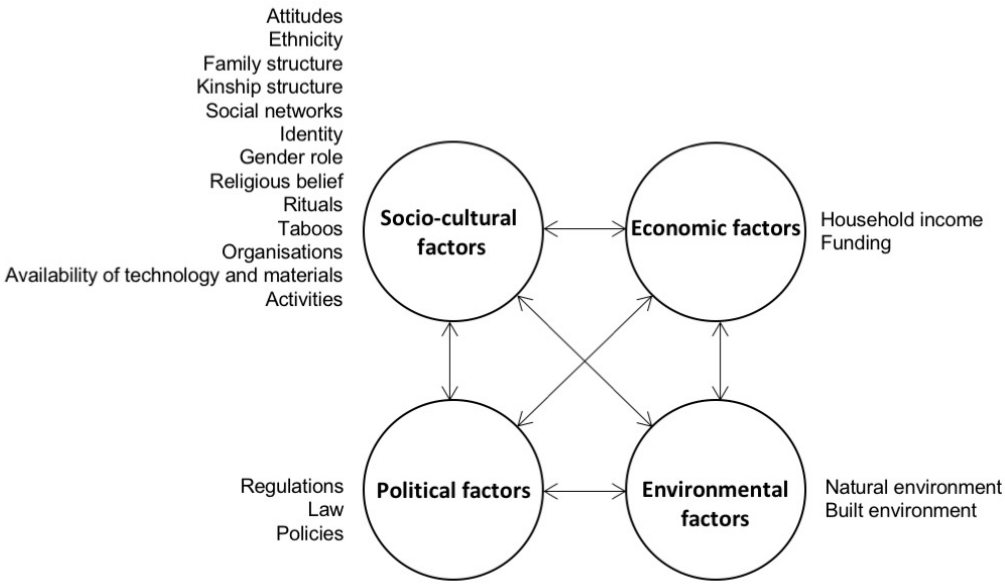


Fig 7.10 Reciprocal diagram
Combining diagrams of the variety of contexts associated with re-housing.

7.2.4 Continuity and change in Karen houses

There are various types of variables in the house building process: kinship and family, social networks, the role of gender, income and regulations that relate to specific features and attributes of the Karen house. The study has considered comprehensive theories of cultural study with a focus on continuity and change in relation to the Karen house. In the Banggloy village, this provides clear examples of change and modification in values, lifestyles, activity systems, roles and needs.

When people rebuild new houses, they make efforts to maintain the continuity that has been displayed through materials and spaces. Werner *et al.* (1985) note that the effort to maintain continuity occurs when people are forcibly relocated. They re-establish their linkages to homes by replicating house elements and modifying their houses. Continuity is evident among the Karen who build new houses. Although the environment of the Karen changes, when they move, many of them maintain continuity by consistently using a particular fireplace, and bamboo, as well as practising rituals and belief.

They still preserve some elements of the cultural core, while at the same time allowing some elements that represent new needs (Sukkasame, 2018a). For example, the family structure and social networks still remain as the core culture, while gender roles, religious beliefs and practices, building materials and house structure are gradually changed. The fireplace is significant and it seems clearly different from other house elements (Fig. 7.13). Such fireplaces are a fundamental component of a Karen house;

it occupies the cooking area and becomes the focal point. It is such a crucial specific expression that the Karen define it as a part of the house spirit. It represents continuity in relation to a house that depicts the traditional culture. This is an expression of form that extends deep into the culture. In one sense, the Karen house cannot be fully understood without taking the fireplace into account. Additionally, the agricultural ritual is performed in the fields, but it ends at the house. This illustrates that the Karen house serves as a place for the performance of certain communal and household rites.

As discussed, the house forms, spaces, materials and structure tend not to change rapidly when compared to the past. For example, the bamboo walls and floors are strong elements when one considers the dwelling identity used in the culture when one compares traditional and modified forms. The roofs and columns have been added with industrial materials to strengthen the building and give it a longer life. At the same time, spaces in the home still have applications that are barely different from the past, such as the verandah and the cooking, sleeping and multipurpose areas. It can be said that the Karen house contains elements of both continuity and change.

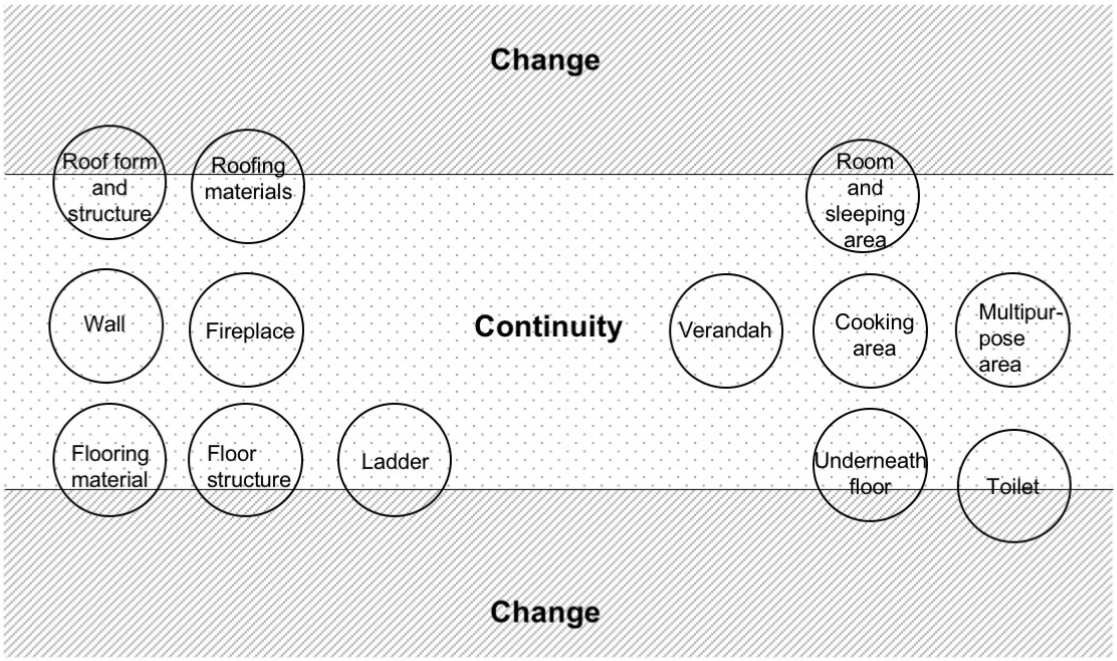


Fig 7.11 Continuity and change in the Karen house

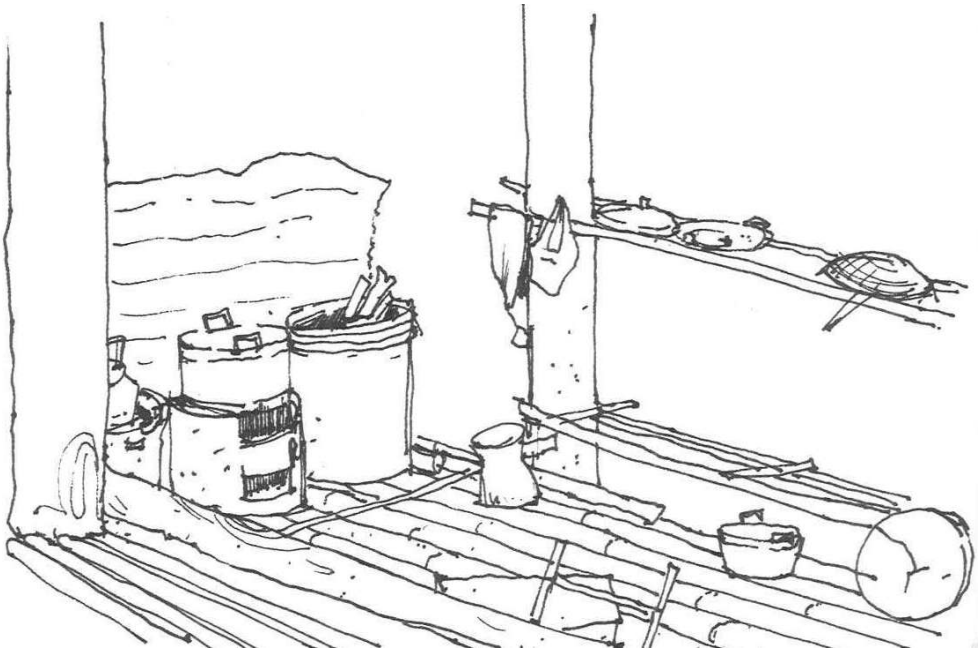


Fig 7.12 Pongsak Jorsho's family's brazier and cooking space

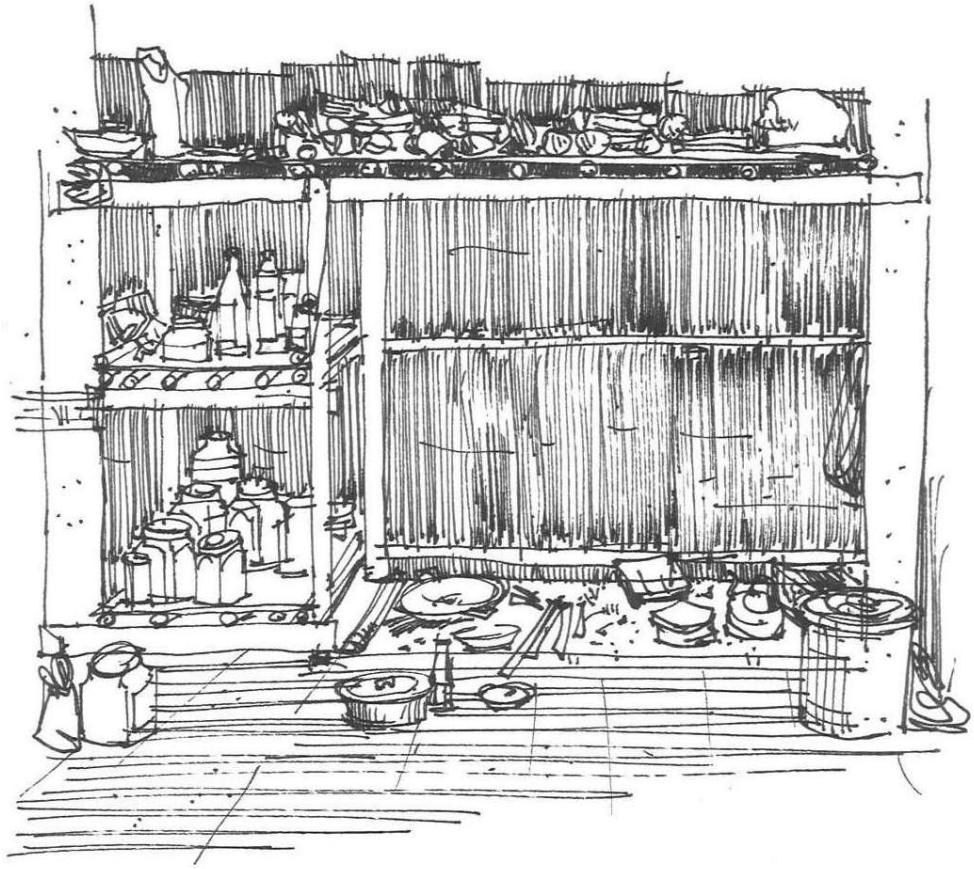


Fig 7.13 Lami Jaroensook's family's fireplace and cooking space

The fireplace is deeply rooted in the Karen house. The Karen also believe that there are spirits occupying the fireplace. The fireplace provides a source of light and heat in the cooking area. Above the fireplace is a shelf for keeping firewood and dried foods. Some households build more than one shelf.



Fig 7.14 Ko-ee Mimi's house between 2011 and 2016



Fig 7.15 Ko-ee Mimi's house in 2018

Ko-ee's house indicates the continuity of the fireplace from the past to the present and helps to further understand the future. Ko-ee looks after the fireplace and always sleeps alongside it. I have visited his house ever since 2011 until I completed my fieldwork in 2017. He passed away in October 2018. The coffin was placed on the space that was his sleeping area alongside the fireplace. This illustrates that he slept alongside the fireplace from the time he was born until he died. Photo: Gulap Rakjongjaroen

7.3 RE-THINKING AFTER BUILDING HOUSES

7.3.1 Management

In terms of management, this is divided into funding and construction management. CODI provides funding directly to a collective community group. This has allowed the Karen to set up a management system to provide for their community members. The most challenging task is how to manage funding levels that are sufficient to meet the current needs of the community members. The funding constraints make them consider the distribution of financial support. Finding a consensus is therefore a vital process to identify flexible financial plans. This has led them to view the development plan and explore possible solutions. We tried to save funding as much as we could in order to ensure that all people were able to gain a subsidy. Design and building management therefore follow the total subsidy budget. Therefore, it is not surprising that funding is a significant factor in the participatory building process. At the same time, it is a limitation to building houses also.

In terms of construction management, firstly, collective management helps to make savings on the cost of materials and equipment. This has made house forms and construction similar to each other, which reduces the cost of construction. Building a large number of houses allows us to manage materials and building plans together in order to complete the construction on time and effectively. Secondly, the self-building method is a crucial agreement between people in the housing project so that each householder has to build their houses with teams of craftsmen. The self-building method is an appropriate way of reducing costs under the limited financial assistance. Self-building allows us to modify structures, and to build flexible forms and spaces. Under the self-building process, each household has different ideas about managing their build as regards both timing and materials. In some cases, they spent a year to complete their houses, while some households were able to finish within a month.

To sum up, the design and building plans made unit construction costs lower and made more efficient use of resources; for example, workshops and meetings provided the preparation for the building process. This was an effective stage for people to know what they should do or not do, such as preparing labour and materials and setting out their time frame. Household labour is also a way of reducing labour costs. Buying materials collectively to get bulk discounts on wood and roofing sheets, and also building houses collectively, is a way to make use of the economy of scale to bring down per unit cost.

7.3.2 Land sharing: a temporary survival method

Land sharing is a strategy to resolve the lack of land within family and kinship groups. After planning, people share the land allocated for construction of the houses belonging to family members and relatives. How much land they shared depended on the household members. In many cases, the parents share the land with their son and daughter. However, people have attempted to negotiate secure tenure terms through cooperative ownership of the land, but so far the national park has not responded.

Land sharing within the community is a temporary survival method to build dwellings and help each other. It provides some positive aspects, such as cooperation within the group leading to the strengthening of the community and reduction in residential density in houses. Some households also share agricultural land among their relatives and kinship group to cultivate crops. This means that they do not share only land, but also an opportunity and hope. It should be borne in mind that this does not mean that the problem of the lack of land is resolved. People still need land for cultivation and building houses. However, working on the construction management process together, made it clearer to me to see the image of helping and sharing land with each other within the community.

7.3.3 Is it liveability?

Undeniably, the Banggloy Karen community is a community of poverty. They often live in overcrowded conditions because of the lack of control of the birth rate. An average of four to seven children per house is standard. Of course, the number of family members in the home affects the development of quality of life within poor households, such as providing food and living space. As a result, they have to find a possible way to survive. The affordable building is an alternative to sustain their basic needs. They agree to develop spaces under the limited budget, and later, if they have enough money, they extend the spaces or increase the house space. This made me see the phenomenon of building houses that took months or years.

Concerning facilities and infrastructure, they are still faced with insecurity and unsanitary conditions; for example, they still consume drinking water from the river without it being purified. Also, there are not enough toilets and those that exist have poor sanitary conditions. In the long term, habitability is a crucial issue that parallels the sustainability issue of how people can live safely and hygienically, the same as urban people. We realise that this topic would be suitable for a further project.

7.3.4 Confidence in living

Secure tenure is a controversial issue, because some Karen do not make sure how long they can live in a particular place or if they might be moved again. After their forced evictions, the Karen felt insecure about their housing arrangements. Some households decided to return to the original land, while some families chose to live in the village. Forced eviction to allocated pieces of land destroys the ability to be self-sufficient, causing social problems, and erodes tradition and culture (UN-HABITAT, 2009: 20). The Karen tried to build permanent dwellings with materials from around the village. As could be seen after the rebuilding process, improvements to the physical dwellings provided opportunities and positive impacts on community development. The collaborative building process indicated that they are more confident about living if they have security of tenure. The housing programme and financial support gave them a chance to improve their houses and showed them what they needed, so they felt confident in building the dwelling. However, in the long term, it is a challenging task to sustain the dwelling. Sometimes, people's future is unpredictable because it relies on the state's policy.

7.4 CONCLUSION

This chapter has examined the results of the house design and building process, including the forms of housing, materials and techniques that are appropriate for the long-term buildings of the Karen community. It can be seen that the Karen still continue to maintain elements and spaces in a similar manner to the old houses. A participatory process enables them to shape the house building process. Generally speaking, it focuses on what the Karen do with their new houses from the design process to the construction and living processes. As mentioned, the Karen house is not only a place of residence, but also a place for the spirit. People, rituals and public functions interact with the building in different ways.

The rebuilding processes are concerned with the experience of Karen life and how the people design the spatial forms. Although they create different spaces and forms when it comes to the fine details, as regards the broad perspective each household creates and recreates similar spaces as they face shared experiences together in the same region. Hence, similar house forms come from the same factors such as budget, regulations and building materials providing the unity of the physical environment. The Karen house space is less the result of individual needs than the aims of family or community. As a result, they build, rebuild and extend their new dwellings, revealing how and why they live, responding to their need and constraints. The Karen's actions respond to the physical constraints and cultural and economic issues. Evidently, the influence of various factors affects Karen life, such as how they behave, the food they eat, the clothes they wear. In some senses, the house is the expression of an ideal

environment, reflecting the social ideologies and ethos of living (Waterson, 1990: xvii). It is constrained by the particular choice of materials and the budget, while under the park's regulations.

These spaces are the key characteristics of the Karen house, both before and after re-housing. These spaces of the home contain symbolic signs so that we can see the relationship between the Karen, the environment and the national park regulations. The availability of building materials creates the forms of the house. Bamboo and wooden columns are the most common materials used in the construction. It is also realised as the critical element of the house that represents the natural colour, shape and texture. This provides the cognitive function of the house style and indicates an appropriate material for long-term building. In turn, industrial materials play a role in strengthening the building structure, such as concrete footings and roofing sheets. However, we have seen that the house form and structure do not change rapidly. They have gradually adapted to meet people's needs, such as a durable house structure and spaces to reduce building maintenance. The simple modular plan and form help to reduce waste.

The aspect of the gable roof allows hot air to rise to the height of the roof, contributing to keeping good ventilation. Additionally, elevated houses provide circulation of air and offer a more comfortable space, as well as protecting the occupants from animals. The open space beneath the house is versatile and is used in different ways depending on the occupants, such as a living area, storage and a place to keep livestock. The verandah is built for washing, weaving or doing other work and is a place to chat with neighbours; in contrast, a room is not always thought necessary for the house. The multipurpose space serves various functions at different times of the day. Inside the house is minimal furniture and interior decoration. The house provides flexible spaces, particularly the multipurpose space.

This is a meaningful relationship between residents, their homes and the surroundings. The Karen do not only make rooms or spaces for their household members, but also create a home for them. It may be summarised that the Karen house contains elements of both continuity and change in spaces, materials and structure. The building process has shown that they have the confidence to work and live on the land allocated to them. Working collaboratively with them is a vital mechanism, providing a lesson on how they can maintain their culture. The next chapter will give a reflection on our participatory process.



CHAPTER 8: CONCLUSION AND REFLECTIONS

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CONCLUSION AND REFLECTIONS

To the Karen,

To date, we have known each other for five years. Many of the community's problems remain unresolved. Some problems have been solved. The housing problem is just one of the many issues that you are facing.
Working with the Karen community in the design and building process, of course, is different from the work of a typical architect. It is rich with stories and experiences that cannot be found in the architect's office.
I have learned very much from engaging, listening, talking and acting with you. I realise beyond this process that this is a vital approach to work effectively how we organised ourselves, what we wanted to build and how we implemented it.
We have learned through the building process in different ways; through drawing and making models, through physical interaction, through exploring your different households and your stories. We listened to the stories of sadness and happiness from many of you. Our working process removed the barrier between us and moved us to take action together.
I would like to conclude that a house is much more than a building. It is about your home and way of life. The process has a start point, but no end point.

This chapter integrates the discussion of what has been learned from the participatory processes and the Karen dwellings. It should be borne in mind that this chapter does not aim to summarise the previous chapters, but mainly wishes to raise questions for the success of further practice. Also, this study does not aim for a policy debate directly with the state regarding participation in indigenous dwellings and sustainability. This chapter begins with the implications of the findings that reflect on the research questions: How is the identity of the Karen explained through the material culture and artefacts of the home? How do they create and adapt their houses within the regulations of the national park? What forms of housing, materials and techniques are appropriate to the long-term building of the Karen community? What are the results of the house design and building? The next part aims to rethink the findings by returning to the main objectives: How effective is the participatory process when working with the Karen people to build their dwellings? The last part will clarify reflections on the study to offer recommendations and possibilities for further research.

8.1 REFLECTIONS ON THE DWELLING PROCESS

8.1.1 Reflections on material culture and artefacts

This part aims to answer a key question: How is the identity of the Karen explained through the material culture and artefacts of the home? The answer derives from a participant photographic method as discussed in Chapters 3 and 5. An interaction between the Karen and the material culture or artefacts in the spaces creates the sense of the space: cognition, emotion, feeling, physical features, activities, satisfaction and attachment. Learning about material culture is significant in understanding their culture and domestic life. It plays a part in shaping their identity, which can be seen in the first four important objects in the house: cooking equipment, agricultural tools, water and rice. These indicate the daily life and methods of survival. Moreover, we can see their identity through material culture, artefacts and consumption. For example, agricultural tools, equipment or clothing reveal things about the social and domestic life of the past and present. Many are stored in the houses. They divulge the stories of everyday life in the forest and provide a personal and collective memoir. This is the language that expresses the home environment. For example, many traditional artefacts, such as baskets and mortars, are associated with the environment regarding natural materials.

In contrast, electronic artefacts and consumption are attributed to choices that involve contemporary culture. This reveals the fact that the commodities in the shops serve people’s needs and try to add to the limited amount of natural products. However, people were not resistant to changes in their lifestyle, because they tested or evaluated things, embraced new elements or electronic items when they perceived

them as advantageous, such as solar panels and smartphones. For example, it can be seen that a smartphone is not only an item, but also creates a connective relationship between Karen groups in different parts of the country. It also creates a new world for them. At the same time, although they do not resist modern items, concerns have been raised about how to retain traditional knowledge together with the modern.

These artefacts expose the stories of life, social status, collective manner, change and continuity. These artefacts and objects represent not only the richness of culture and wisdom but are also indicative of the efforts and struggles to find survival under various constraints. It reflects the balance between outside and traditional cultures. If looking back at the placement of these artefacts and objects in the house, and interaction between Karen and these artefacts and objects, it is clear that these artefacts make houses more than materials and structure. They have become living houses.

8.1.2 Modifying the house to survive

A key question is whether the Karen should continue to build from traditional materials to sustain the value of the vernacular house. The building processes indicate that many Karen do not appreciate the traditional style, and emphasise more the functionality and durability of the building. Hence, building materials have been changed and adapted following the condition of the context and the needs of the users.

Traditional Karen houses are built with materials found within the locality; generally, hardwood posts are used for a solid house structure, while the floor and walls are made from bamboo and the roof is thatched with palm leaves or grass. Currently, however, traditional Karen houses face many problems, particularly the lack of traditional materials to repair their houses, because it is prohibited to cut some materials in the forest such as hardwoods, while bamboo or palm leaves are hard to find. On the other hand, industrial materials are more durable and can extend the life of vernacular houses with a relatively low budget.

The change of materials is an adaptation according to the situation under park regulations and the survival of the building. So, we see the shape of the Karen house being modified by changes to the material to create a sturdy house to be consistent with current use. Thus, today, industrial materials such as fibre cement and galvanised metal sheets are increasingly used in Karen houses. Thatched roofs on traditional houses usually have a short life, so many dwellers often replace it with contemporary materials such as galvanised metal sheets. These ideas are supported by Oliver (1987), who mentions the developing neo-vernacular architecture of indigenous cultures that can survive in modern society by using recycled and industrial materials to adapt the vernacular traditions.

Function and lifestyle are changing; the Karen houses therefore need to change to respond to current practicalities and functions. Change in the Karen houses is a combination of modern influences and local culture to produce modified forms and spaces, which are derived from qualities that accept change (Sukkasame, 2017). Additionally, the change and development of form and function are an evolution of vernacular houses, gradually adapted to the contemporary situation. This is the challenging task for the Karen in the future: How do they adapt their life to the modern culture?

8.1.3 Reflection of house forms, materials and techniques

This section aims to conclude what form of housing, materials, and techniques are most appropriate to the long-term building by the Karen community, and draws on the results of the house design and building as discussed in Chapter 7. It can be seen that the Karen still build houses that are similar to the traditional style in terms of spaces, but they change some of the building materials used in construction, such as galvanised metal sheets, fibre cement roof sheets and concrete footings, because of the national park regulations and to strengthen their houses.

However, there are many factors that affect the building process, especially regulations and laws. The national park has the legal authority to inspect and approve construction projects in order to meet park regulations. This, of course, puts pressure on the Karen, who need to use some industrial materials. In the same way, financial factors also have an influence on improving and rebuilding houses that are connected to the use of construction materials, whereas religious and ritual practices in the building process have more influence on elderly Karen than on the younger generation.

Thus, the Karen houses are closely connected to such building factors and reflect constraints such as regulations, accessible building materials, budgets and techniques. Although we use a participatory process as an approach to working together, we still must work under the regulations of the national park, such as the rule that prohibits cutting trees in the forest to build houses. Thus, we spent much money on the purchase of building materials from the city such as wood.

As already mentioned, the combination of local and industrial materials contributes to prolonging the life of the building. However, the materials purchased from the city conflict with the sustainable approach to the community, which directly affects the control of the use of limited project funds. Therefore, planning for efficient use of funds together is the first priority to consider. The last point is the techniques and construction methods used. As discussed in before (Chapter 6), building techniques and methods are related to the materials utilised. If the material is bamboo, we use local techniques, but if it is concrete footings or roof sheets, we use contemporary

methods. However, the physical changes in the new house form have concentrated on developing the quality of the house, but without changing the spatial aspect of social and family structures.

8.2 REFLECTIONS ON PARTICIPATORY PROCESS

This section aims to rethink the findings by returning to the main objectives; first, to evaluate the impact and effectiveness of the participatory re-housing process on the lifestyle and culture of the Karen; second, to identify both supportive factors and challenges affecting the re-housing process.

8.2.1 Effectiveness of participatory working on re-housing process

The Karen are involved in the decision-making process to improve their dwellings. The diverse practices in the dwelling process are about creating a form of learning by bringing people together in action, reflection and practice. The primary aim of this section is to reconsider the effectiveness of the participatory process through various characteristics of the working process, such as mutual learning process, working on the sustainability issue, encouraging the people's process, working on the democratic process, and empowering the community.

8.2.1.1 Mutual learning

The re-housing process is a combination of social and design processes to connect each role within the projects to reach the destination together. Thus, when working with NGOs or social practitioners or Karen, we may need to create co-frameworks and define roles to drive the process together. Mutual learning derives from a combination of social and design processes. It indicates the working process based on what we perceive, think and collaborate rather than on individual opinions. The study-based practice is centred on the collective search to explain the phenomenon. Thus, mutual learning is at the heart of our working process.

The social process is the relationship and interaction between occupants, families, relatives or kinship groups. It includes meetings and conversations between us. It is more than the reflection of thought and social organisation; it includes everyday life and people's worldview. For example, the social explanation of the Karen world and surroundings is entirely different from that of the urban. The Karen's beliefs are based on supernatural phenomena and they believe that they are a part of nature; it is inseparable from them from the time they are born until the time they die. These beliefs are reflected in their way of life, the creation of their spaces and their practice of rituals. Therefore, understanding the rules of living is essential to understanding their dwelling

system and changes in their way of life. Understanding both social and design processes not only explains how people behave or design the houses, but also explain the phenomena of their world.

At this point, the importance of each role or organisation's role is to connect social and design processes together through the participatory process. However, there is no "best formula" or perfect learning form because that depends on the current situations or particular circumstances. Thus, it is necessary for us to understand how to maximise the engagement of the Karen, and in the same vein, how we can become involved as a member or a part of the community to learn from them.

We intend that this working process will have an impact on future projects with indigenous Karen, but the limitations of language, budgets, distance and timing lead us to require more time to develop and work on the project in terms of community development after the building process. Consequently, we need to develop a long-term relationship with the Karen and require some degree of financial support to run the process. Once again, the purpose of the participatory working process is mutual learning. Collaborative working establishes a new area of understanding of the Karen and emphasises the idea of practice more. As a system of investigation and participation, this project has demonstrated that it is an effective approach to facilitate the community process. However, it should be borne in mind that whether future mutual learning within the indigenous housing process is effective or not depends on the people incorporating various forms of knowledge.

8.2.1.2 Working on the sustainability issue

I worked with Karen in planning operations with regard to the sustainability issue, both at community and household levels. We aimed to encourage the Karen to become involved in the design and building processes to promote sustainable dwellings. However, we still have problems with limited access to natural resources. Buying natural materials from the town may conflict with sustainable themes regarding the economic dimension of sustainability. Sustainable development should be cost-effective (Cooper and Boyko, 2013); in contrast, we spent large amounts on buying building materials.

However, at that time, this was the most appropriate option. Of course, all of us, including the national parks, are concerned about the use of natural materials in the forest for the construction of many homes, which would affect the environment and animal wildlife. The working process therefore intended to establish participation by trying to avoid the use of wood in the forest except for bamboo. However, today the sustainability issue is still a challenging task because of the limits on lands and resources: how can it be made more sustainable? Therefore, the sustainability of the community depends on the state's policy and the regulations of the national park.

Although the Karen's forest management method is well known, revealing their ability to live in harmony with the forest, the state is unresponsive.

8.2.1.3 Towards a people's process

The participatory process enables people to contribute actively and participate in the development leading to them taking ownership of the process. We made decisions together in the working process and we learned from each other. This is a format leading towards group consensus decisions. The decision-making process is the basis of collaboration in the project. We had opportunities to share and discuss the design process to prepare for building and how we could work following the action plans. Discussion among participants was an essential part of the process, which was a useful approach to evaluation. It helped us to understand the complex issues of the environment and the society, and also provide insights into situations and family characteristics.

This contributed to creating a people's process that the people could control directly in a way that promoted and managed their dwelling and environment. As such, it is a participatory process built on a base of knowledge and culture, with the addition of participation and encouraging people to express their opinions fully. This approach emphasised the way in which the Karen carry things out themselves to develop the strength of collaborative decision-making. It demonstrates the importance of the community process in supporting the developmental approaches to negotiating with the national park officials. For example, together the Karen proposed the concept of using industrial materials in construction such as concrete footings and galvanised metal sheets. Although it took a long time for the park to consider this, the Karen were successful. On the other hand, the process of negotiating the rights to arable land in the forest is still in the process of consideration. However, we never give up negotiating in order to gain the stability of living in the forest. It can be seen that the process of the Karen people is important in terms of bargaining with authority in order that the rules are applied fairly to them. This does not only concern the building of houses, but also includes the rights to the land.

8.2.1.4 Working on the democratic process

Our practice brings into play equity among the participants. The Karen have participated freely in all issues under discussion, and all have the same status with equal voices. However, Karen society has built in inequalities in terms of roles and duties. For example, in the Karen family, control over the home is more female than male. While in traditional Karen culture, they respect the elderly and leaders, thus, sometimes the voices of the elderly and the leaders may be more powerful than others in making a decision in some cases. Elders and leaders will gain more trust than others in the village, including those who have a good social status, such as teachers,

soldiers and doctors. These are all regarded well because of their duties, and may sound more credible than other villagers.

However, my role is to allow everyone to express various opinions equally. When we express ideas, and listen to others, we also have a chance to learn from each other. The advantage is that it helps us to have a consensus on how to work together and determine possible work plans that do not conflict with the regulations of the national park; for example, the use of particular building materials, the establishment of teams of community craftsmen and the clarification of the role of householders and craftsmen in supporting villagers following agreement in the meeting.

Although the Karen have a chance to gain control over their house building, that does not mean that they will be able to regain their land rights, but the participatory process has helped to promote rights and encourages them to think about their culture, tradition and identity as well as improving their living conditions. It also allows them to create a local management group and encourages them to learn from their mistakes and develop effective plans.

8.2.1.5 Empowering community

Our process promoted collective living and built on the Karen tradition of collaboration. It encouraged the Karen to seek out problems, collect and analyse information, and act on the problem to search for solutions. Our practice in the Banggloy village was to achieve the building of houses and empower the Karen people through a collective process. The level of collective management took the form of the Karen having control over the decision-making body for the project from the beginning; for instance, searching out building materials, construction management and financial management. This differed totally from the top-down approach of the state represented by national park and local government agency. However, this does not mean that everyone understood the process.

We participated in community development to help consolidate the community and enhance their society. People now have more confidence in presenting their problems to outsiders. They also learn to search for development opportunities via funding resources. The meaning behind working together empowers them and bonds their households together to share experiences and find a possible way to negotiate with the authorities. We have seen that the collective learning experience stimulated the discussion within the group to discover possible solutions. However, it does not guarantee success for the long-term. However, a critical question arose at the end of the project: how can our practical work be scaled up in impact and made more strategic for other indigenous Karen communities? This could be a subject for a further project.

8.2.2 Supportive factors and challenges of the process

8.2.2.1 Supportive factors

Our working process has shown that community-based action is an effective mechanism to work with the Karen people. Working collaboratively with the Karen provides them with an opportunity to maintain and accommodate their culture, including modifications to the contemporary culture. This section aims to reconsider the supportive factors of the project. It may be divided into five parts.

First, motivation: the need and desire to have improved housing conditions encouraged the Karen to get involved in the participatory process. The needs arose from lacking an opportunity to obtain access to the appropriate type of dwelling. Also, demands for housing played a significant part in the building process. This motivation convinced the Karen to develop alternative approaches to improve their dwellings.

Second, technical support, both in management and building techniques, were applied in the building process to meet the Karen's needs. They modified houses by mixing local and temporary building techniques to sustain their dwellings.

Third, collective material management. We bought some key building materials from the town. We managed them together and fitted them into the building plan. This option reduced the concern of the park officials about using natural resources from the forest.

Fourth, financial support was a significant tool. Without finance, we might have no building process. So, financial support is fuel to generate the process moving forward continuously.

Fifth, support from organisations who act as advisors, navigators and trainers to bring people together to solve problems. This participatory project and action required partnerships and organisations to support the Karen's work; for example, CODI gave support through financial assistance. Additionally, NGOs and volunteers were also key supporters working closely on the project. These partnerships should be involved in the long-term process to create robust working processes.

8.2.2.2 Challenges of the Karen community participation

Nonetheless, this does not mean that we do not face obstacles. The most important thing is that we learn from our mistakes; for example, collective material management and funding management were new things for the Karen. They take time. The obstacles that we faced in the project were the limited budget and resources, technology, language and communication, distance, and the conflict between the Karen and the park officials. It was sometimes quite difficult to make compromises with them.

Although, in reality, the officials allowed this housing project to help them, the Karen still think about the time when they were forcibly evacuated and their houses were burnt.

The collaborative working process with the Karen people indicates how we worked together, how they built their houses, how they improved their community to sustain life and what we learned from them. However, there are many challenges for further projects. This section therefore aims to reconsider the obstacles and challenges of the project.

First, creating trust. This was the first task when we first arrived in the village. Trust and mutual respect were the key to opening the first door to obtain in-depth information, and this took time. For example, after obtaining funding, the Karen led and managed the full project funds, together with my colleague and myself as an architect and a facilitator. Allowing the people to lead the project means that you trust them to deal with the problems. However, for us, building trust in working together takes a long time, because once trust is lost, it is hard to recapture the relationship between us. At the time, it was important to avoid making negative comments about the management by the Karen. This may have resulted in barriers to working together in the future, because some people might have been sensitive about such comments. Furthermore, one should ask for permission before engaging with the people and carefully consider the preconditions for engagement.

Second, language and communication were a crucial problem because as outsider we could not speak the Karen language. We were stuck with having to translate between the Karen and Thai languages. On many occasions, we could not find accurate words and meanings when we translated the language. Thus, when we interviewed people, we had to use translators who were often younger Karen; it sometimes took time. In turn, it encourages a new generation to engage in working within the process, and to create and increase the number of new young leaders for the future.

Third, taking time. Participation is time-consuming, both in methods and techniques, because it involves many participants. This participatory project took around four years to rebuild 91 houses. The process included many meetings and workshops to reach consensus on each issue. Also, building houses in each phase took time because weather condition and shortage of building materials. Exchange ideas sometimes took time. This made me and my colleague pay much attention to the project.

Fourth, the limited budget challenged the process. We obtained a small amount of financial support and we tried to manage the funding effectively. This challenged the collective management process. Also, people had to use their own money to buy some building materials. Within the limitations of the budget, the people discovered alternative building techniques and processes creatively. In this sense, limited

financial support challenges people to become motivated and convince them to carry out actions.

Fifth, accessible materials. The project started with accessible materials both in the town and the forest. Restrictions to access to materials affected changes to habitat-related constructions. Integration between local and industrial materials resulted in learning new construction methods different from the past.

Sixth, the conflict between the park officials and the Karen had an impact on the project because it concerned trust and belief in working together. The conflict between organisations arose from misunderstanding each other in working processes and the objectives of the work, such as between the western Karen network and the PTLF.

Last, the permission of the national park. Staying in the village requires permission,[25] because the research area is located in the national park, which is a strictly controlled zone. Another issue was that as the Karen were moved to an allocated piece of land, I therefore could not study and survey their original land, houses and landscape because the park officials did not allow us to survey there. Thus, the information about the original land was derived from interviews, group discussion and storytelling from the Karen who used to live there. This study therefore lacks my direct experience from the original land to compare with the allocated land.

8.2.3 Reflection of my roles

It is clear that my roles were a factor in the re-housing process. My various roles were played at different times depending on the situation. It was necessary to have an open mind to develop the degree of trust required and spend time to build such trust by concentrating on the bottom-up approach to empower the Karen to take on responsibility for decision-making, planning and implementing their own ideas. Therefore, my role was not to impose but to encourage them to improve and solve problems by focusing on the process. The key role was to enable the Karen to develop their analysis of the housing project and help them to be self-managing and empowered in the future. Moreover, I attempted to minimise my influence on the Karen's thoughts. Nonetheless, in a community-driven project, I provided guidance, assistance and technical support.

The critical role was to help the Karen group understand their common objectives and assist them to plan what they needed to change in order to achieve their goal and to enable them to examine the action plan. This approach led me to work in close collaboration with the Karen, which differs from an authoritarian method of working. It was organised and conducted in a way to strengthen the democratic, equitable,

[25] When my supervisor accompanied me to the village in 2014, we were able to obtain permission.

liberating and life-enhancing qualities of participants (Stringer, 1999). In addition, it was important to listen to all of the people's ideas, both positive and negative reflections. Talking to the Karen also gave them opportunities to reflect on feedback.

During the fieldwork, with my working experiences and architectural knowledge, I led the project and conducted the research at the same time. I tried to understand their way of life and work, and also the obstacles we had been facing. Taking the role of facilitator enhanced and opened opportunities for me to get closer to all households. Meanwhile, my role also influenced the ideas and attitudes of the community development. I would therefore like to summarise my role as not only a researcher and facilitator, but as holding a variety of positions while conducting the project, including as an architect throughout the process.

In 2013, I was invited by CODI's staff to visit the Banggloy village as an architect in order to conduct the housing project. This role aimed to develop a variety of architectural tools such as models and drawings to empower the Karen to control and build their settlement. I therefore concentrated greatly on the process of design rather than on the product. I not only worked with the community in terms of the physical appearance of the built environment, but also encouraged them to consider the existing non-physical aspects, such as budget, regulations, culture and confidence in the design processes. Creating a flexible process regarding building was also essential; thus, I had to care about and consistently listen to the voices and knowledge of the community (Sukkasame, 2018).

The second role was as a facilitator and enabler. After obtaining CODI funding in 2014, I volunteered to lead the project with my NGO colleague. This role was about assisting the Karen to achieve consensus on any disagreements within the project, and enabling and organising them to work effectively, including providing skills and knowledge and reminding them what they already had. In terms of technical support, we were sure that the Karen's building skills were sufficient to build their own houses. We therefore concentrated on the empowerment processes through the workshops and meetings by employing various visual methods to support the learning process. We contributed the programme and process to interact with those that were able to make the discussion; for example, I also encouraged them to draw from their experience on the building of houses instead of telling them everything. Also, the activities enabled the Karen to learn from each other and build on their knowledge by promoting mutual learning and understanding. Moreover, we helped them to plan and develop the drawing to complete them on time, following the CODI funding and time frame. Planning was divided into two sections: strategy planning and action planning. Both strategies were placed within the participatory process to achieve the objectives. Also, this allowed collaborative working using the bottom-up approach to make decisions. Plans were usually flexible and coordinated in a way that enabled the Karen to act and implement effectively.

The third role was as a coordinator. The primary responsibility of this role was to develop and promote the relationship between the Karen, CODI staff and the national park officials together to implement the action plan throughout the project. My colleague also took responsibility to coordinate the activities of the Karen, the park officials and the Huaimaeprieng Subdistrict Administrative Organisation (HSAO). The coordinator role was as a kind of middleman to manage misunderstandings and form understanding between organisations. Additionally, the objective was to defend the self-determination of the Karen and to respect their rights.

The fourth role was as a teacher. The Karen usually call me *Arjan* in the Thai language, meaning teacher. This may be because I am teaching at Bangkok University. In the Karen culture, in general, they respect elders and for those in higher social positions. Children are taught to respect their parents, and also teachers, who hold highly prestigious positions in society, the same as doctors. This was useful as we helped them to acquire knowledge and organise the project.

These roles helped me to realise how the action programme should be conducted, how to encourage the Karen to get involved in the process and how to plan the building of the houses and management of the materials. I interacted with the people and organisations representing many roles that were relevant to the re-housing processes.

8.4 RECOMMENDATIONS

8.4.1 Suggestions for state policy

During my work with the Karen people, our conversations often raised many questions about how the state should realise their operations policy at the point of engagement with the Karen. As is known, the traditional livelihood systems of the indigenous Karen peoples are based on traditional farming and knowledge, and other cultural practices. They have experienced various forms of human rights violations due to state policies. Current laws and regulations are obstacles to traditional practice. Land allocation is also a part of the policy that reduces rotating cultivation.

What should the state do? The state has to provide clear guidance within a human rights framework and ecological approach and show respect for the rights and traditional knowledge of indigenous peoples, including their sustainable livelihoods. The state has to provide a strong dwelling policy advocacy at national level on secure dwellings, food security and livelihoods, based on the principle of equal partnership between the state and indigenous peoples in relation to sustainable resource management and cultural integrity.

Participation is an important and effective method and approach that goes beyond cultural, economic and political concerns to establish learning platforms on practices, knowledge and innovations, and share information and education (Sukkasame, 2018b). Collaboration between indigenous peoples, state agencies, NGOs, researchers and academic institutes should be framed in terms of sustainable planning and dwelling development at local and national levels in close collaboration with the Karen. The state should re-consider the inclusion of rotating cultivation and other indigenous agricultural practices. For future practice, the participation of local people is the most significant stage for local development, especially concerning the human rights framework and sustainable resource management systems.

8.4.2 Ongoing and future research

This study has investigated the working of a Karen community and the participatory way of working with the indigenous Karen. It would be advantageous if we could investigate more factors in the building process, both in rural and urban settlements, to add to the housing study. For example, in Karen culture, we found that religious belief and practice are an essential part of the building process. This issue is an intriguing one, which could be explored further in future research. Another issue is the community sanitation. We realise that this issue also should be researched and become a participatory project: "*Design of indigenous community sanitation facilities through a participatory approach*". Lastly, while conducting this project, in 2017, I started a research with a Karen teacher to document the history of Banggloy village. This oral history project works with villagers to confirm the existence of the Banggloy community that has been established for generations, because the villagers do not have any documents to confirm the history of the community. Therefore, this community history project is being brought about by a combination of personal history and kinship history. This work is ongoing and is being carried out alongside the Karen housing project, which drew on genealogical, interview and mapping methods. These fields of study would be a great help in fulfilling and adding more to the theory and practice of the dwelling study and participation, as well as the culture and the built environment.

8.4.3 Beginning again

As mentioned in the early chapters, the main problem of the villagers is the problem of the lack of land, but this problem has not yet been resolved due to the laws and regulations of the national park. The problem has been highlighted and presented many times in joint meetings between villagers, my NGO colleague and other organisations. This has caused an effort to be made to find possible solutions together, which is at last beginning to make progress, particularly with the new leadership of the national park.

> 25 July 2017
> 8:30 am: *"Today we need all people to meet the national park officials to listen and talk to them about the land problems, particularly people who do not have land. I ask you all to go to ask your questions by yourselves, because I cannot ask for you all".*
>
> An announcement by Plu Jeebong (a Karen leader) at a community house

> 9:30 am: Mana Peampoon, the chief of the national park, said at the meeting*:*
> *"We are here to make an agreement together regarding the boundary. We all need an agreement to make the land peaceful. So, in terms of land and livelihood problems, we would like you all to participate and collaborate with the officials to exchange ideas together. We will solve problems together. We will work sincerely and it is an opportunity to drive the project [forward] together. We need you all to trust us.*
> *For our team, our role is, firstly, to listen to your opinions and to create a participatory process for sustainable management. Secondly, to measure and survey the land use of communities. Thirdly, to announce the building measurement, planning and land use. Lastly, to propose these data to the national park committee and the International Union for Conservation of Nature (IUCN). We are working under the law and the National Park Act. We are working on the cabinet resolution on 3 June 1999 to serve you as the people who live in the forest […] We are dealing with the poor by considering the importance and problems of the people according to Order 66/2014 of the military government. So, we hope, we will attempt to employ these Acts and Order to apply to the community".*
> 13:30 pm: The park officials appointed us to go to check and mark out the allocated land. This is a starting point to solve problems by providing land for some people who do not have a piece of land. I hope so.
>
> Field notes, 25 July 2017

Hopefully, this may be a starting point for meaningful sustainable community development. Our working process just solves one problem of many, and the housing problem is not the core one. The core problem is people's lack of land and resources. They need land, secure tenure and collective natural resource management. The working process between 2013 and 2018 indicated that collective management is an option in which they can play a role to manage their natural resources and dwellings, if the state gives them a chance to do so. My thesis ends with this chapter, but a new chapter of the Karen's life is just beginning.

8.4.4 To Porlajee

After Billy's disappearance in April 2014, we all always miss him. He was the first villager I met and worked with until he disappeared. This housing project would have been very difficult if there had been no Billy to help in starting the data collection. Billy's disappearance is still a mystery. However, in 2018, the Department of Special Investigation (DSI) received this case as a special case to find the truth of Billy's disappearance. We all hope that we will get to know its cause. We all are waiting to see him again.

DSI TO LOOK FOR DISAPPEARED 'BILLY,' FOUR YEARS LATER

> ***BANGKOK*** *— The Department of Special Investigation announced Thursday it will investigate the high-profile disappearance of a Karen activist four years ago.*
> *Word that the nation's top investigative agency would look into what happened to Porlajee "Billy" Rakjongjaroen was announced in a statement this afternoon.*
> *Billy was a prominent environmental and community rights activist. He was last seen in April 2014 in the Kaeng Krachan National Park being taken into custody by park officials on allegations he illegally had a wild bee honeycomb and six bottles of wild honey. He has never been seen since.*
> *After he vanished, park officials insisted he was later released the same day after being questioned.*
> *Billy had a longstanding legal dispute with park chief Chaiwat Limlikitaksorn, who was accused of forcing out ethnic Karen by destroying and burning 20 of their homes.*
> *The investigation went nowhere for years. In a related development, the Supreme Administrative Court earlier this month found Chaiwat guilty of malfeasance for setting fire to more than 100 Karen houses in the park. He was ordered to pay compensation of about 50,000 per house to six plaintiffs. In the same ruling, the court said the affected ethnic Karen could not return to their homes in the park because they did not possess property deeds.*
> *Kingsley Abbott, a senior legal advisor with Geneva-based International Commission of Jurists, tweeted Thursday saying the decision, which came after years of advocacy by groups including his, was "hopefully an important step towards accountability and establishing truth about his fate and whereabouts."*
>
> Extract from Khaosod an English language newspaper, 28 June 2018,
>
> (Khaosod English, 2018)


LONDON
ENGLISH HOME
Sapiens
HOME
PARTICIPATION
HOUSING
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Appendix A: List of interviews

Interviewees	Age	Gender
Villagers		
1. Jorkha Tonnamped	43	M
2. Sutee Tonnamped	-	M
3. Jua Jeebong	68	M
4. Pairach Rakjongjaroen	41	M
5. Boonchoo Pugad	48	M
6. Krae Pugad	52	F
7. Praseart Pugad	17	M
8. Jorhoa Tonnamped	60	M
9. Suree Tongheard	53	F
10. Tapab Tongheard	34	M
11. Ekkasit Jaroensook	27	M
12. Pedploy Josho	20	F
13. Sorkapor Boonmee	54	M
14. Porkormeu Chaya	56	F
15. Sombat Chaya	55	M
16. Prem Chaya	19	M
17. Tongdee Chaya	69	M
18. Yapoo Chaya	50	F
19. Norka-ea Chaya	43	F
20. Tanakit Chaya	21	M
21. Samart Tonnamped	36	M
22. Porkwameu Jongjaroen	60	F
23. Sunee Kwabu	58	M
24. Treetep Tonnamped	-	M
25. Peeknok Tonnamped	42	M
26. Kib Tonnamped	36	F
27. Jorkol Tonnamped	44	M
28. Kaew Tonnamped	46	F
29. Jorwa Kreajee	26	M
30. Peumae Chaya	87	M
31. Pedmanee Josho	21	F
32. Dokmai Chaya	36	M
33. Porpimol Jaroensook	32	F
34. Pae Kreajee	58	M
35. Suda Wongpattanapak	68	F
36. Supakid Jorsho	35	M
37. Tubimi Jongjaroen	36	F
38. Soitong Kreajee	60	F
39. Numchok Jaroensook	40	M
40. Suijae Kwabu	44	F
41. Sittipol Rakjongjaroen	34	M
42. Josho Kraejee	68	M
43. Sorlae Kraejee	55	F
44. Tee Tonnamped	36	M

Interviewees	Age	Gender
45. Parmo Ladoa	74	M
46. Nortibu Ladoa	74	F
47. Somsook Kadjid	49	M
48. Kantima Rakjongjaroen	36	F
49. Ladda Josho	47	F
50. Jormu Kwabu	49	M
51. Pihi Chaya	69	F
52. Vichai Wormor	-	M
53. Supasa Chaya	-	F
54. Poroajee Rakjongjaroen	60	F
55. Mongkolchai Rakjongjaroen	29	M
56. Preyanuch Kreajee	34	F
57. Dang Boonmee	-	F
58. Chaiyaporn Buasri	32	M
59. Yuranan Pongtep	26	M
60. Tulu Pandook	58	M
61. Arun Jan-upatam	60	F
62. Treetep Pandook	31	M
63. Lami Jaroensook	57	M
64. Ekkachai Jaroensook	26	M
65. Ekkarat Jaroensook	25	M
66. Busemue Jan-upatam	75	F
67. Pakorn Chaya	35	M
68. Porla Ladoa	49	M
69. Jorme-u Chaya	65	M
70. Kitsana Chaya	19	F
71. Kina Tonnamped	42	M
72. Takinu Kwabu	38	M
73. Thijo Jaroensook	73	M
74. Apisit Jaroensook	31	M
75. Tanapol Supangkul	43	M
76. Pattamaporn Supangkul	32	F
77. Lonnachai Ladoa	37	M
78. Chanui Buasri	35	M
79. Pongsak Josho	30	M
80. Jorjuemi Jaroensook	55	M
81. Lee Pugad	49	F
82. Porya Tongkerd	49	F
83. Thapanee Tongkerd	24	F
84. Sainam Buasri	52	F
85. Khasemsak Buasri	31	M
86. Panom Chaya	-	M
Leaders		
1. Niran Pongtep	51	M
2. Plu Jeebong	38	M
3. Kratong Chokviboon	48	M

Notes- Age reference from the survey of the leaders in 2016

Appendix B: Selected field notes and interviews

Jua Jeebong

Jua, 70 years old, was moved to this land with his children and wife in 1996. Now his son is a leader of the village.

I arrived at the village at 8 pm on 26th July 2016. I decided to stay with Jua's family for three nights. This house is the first house that was built in Phase 2. The house was completed two months ago. Now, it is very new and clean compared to the previous house. In terms of the old house, it was divided into three areas: two rooms, and the multipurpose and cooking areas. The roof was made of galvanised metal sheets, and the floor and wall were created from bamboo.

Last year, I surveyed his old house. It had two rooms; one was for him and his wife, another one was for a grandson. When I climbed up the ladder to the multipurpose area, I saw many sacks and various items scattered on the floor. The back of the house was a cooking area, which was divided into two main areas: the eating and the cooking area. The floor of the eating area was made from split bamboo, while that of the cooking area was made from pieces of bamboo. Also, it had a small hole through which to throw wastewater and waste food to feed chickens. The fireplace is the heart of the house; some Karen say the fire is never allowed to go out.

The new house's space is divided into six main areas: three rooms, the cooking, storage, living, multipurpose and washing areas, and the verandahs.

The key structure is built by utilising hardwood. The floors are both bamboo and lumbers. Lumber is used to line all rooms' floors, and bamboo is used in all remaining spaces as well as on the walls. All bamboo was bought from villagers who went to cut it down in the forest. Jau spent around one month to build it and then completed it in May 2016.

"Bamboo is hard to find and buy. We need thick bamboo to build the floors and thin bamboo for the walls; this contributed to taking time to build this house", Jua said.

Field notes, August 2016

Numchok Jaroensook

Numchok, 45 years old, is a worker. He has four children. His children are studying at school and his oldest son is studying in the town. His house is located near the weaving house. It is a small bamboo house which consists of one room, plus cooking and multipurpose areas. The roof is covered by plastic to protect the house from rain in the rainy season (June–September). He used bamboo to build the house, from the columns to the roof structure.

On 8 September 2016, I met Soichee (Numchok's wife).
"I am unemployed. […] My husband works outside the village. […] He usually goes out at 7am. […] My house was built one year ago. We built this house ourselves. We just did it simply following the previous house [demolished house]. […] We do not have a plot of land", she said.

The current house is built from temporary materials. This leads them to build a house every year. For this reason, they are thinking about a new permanent house using the permanent or industrial materials.

"It [the old house] was of a similar size and form to this house. It was in front of this house […] We are collecting fibre cement roof sheets for a new house", she said.

Soichee Kwabu, 45 years old, 8 September 2016

The next day at 8pm, I met Numchok at Jaroen's house. He often comes to watch Thai dramas [on the TV] with his wife and sons. It was an opportunity to talk with him.

"I was born in Banggloy village [the present village], then, when I was around eight years old, my parents moved to Banggloy Bon to live and farm. Then, we were evacuated to Banggloy village [the present village] in 1996. I have six brothers; I am the second. One of them moved to live in Ratchaburi province, while my four unmarried brothers still live with our parents in the same house [Thijo's house]", Numchok said.

"Could you tell me about your routine in the morning?" I asked.
"I usually wake up at 5am. to call up my daughter to cook rice and prepare to go to school. I sometimes smoke a cigarette [tobacco rolled in paper] before waking my daughter", he said.

"Do you have a plot of land?" I asked.
"I have no land to cultivate rice, I am only employed for minimum wage as a worker and craftsman", he said.
"Who is the owner of the plot of land?" I asked. *"This is a plot of land of my wife, she received shared land from her sister"*, he responded.

That night, he not only came to talk to me, he showed me his drawing.
"This is my design for a new house. It is an 18-column house, which includes rooms, plus cooking, washing and multipurpose areas. The roofs will be [made of] fibre cement roof sheets and thatch. The walls and floors will be [made of] bamboo. The main entrance will be accessed through a small verandah", Numchok said.
This was very surprising to me. I also asked him to attend the workshop the next week.

Numchok Jaroensook, 45 years old, 9 September 2016

On 19 September 2016, Numchok joined the workshop. He created a bamboo model to show what he thought and needed. This was an important step to establish a clear idea. It also showed how he understood his house's spaces. Furthermore, the materials, spaces and any other detailed elements were explained through his drawing. His drawing contained a reflection of the needs, desires and belief system.

"I am preparing the materials, such as columns, fibre cement roof sheets and bamboos", Numchok said.
I felt he had strong feelings about wanting to build a new house. He had a clear purpose and idea.

After the workshop, I met him quite often, he also often talked to me about his new house, and when he talked to me he always smiled and said, *"Thank you".*



Fig. A1 Inside Numchok's house
These are the cooking and washing spaces. The fireplace is in the corner. Next to the fireplace are the sleeping and eating areas. Numchok said that he builds a house quite often because he uses temporary building materials, but the new house will be durable and permanent.



Fig. A2 Numchok's drawing in the workshop, September 2016

Numchok has drawn his dream house. His drawing shows that the front verandah is the main entrance. The multipurpose space connects three rooms and the cooking area. The gable roof is covered by fibre cement roof sheets. His drawing supported communication between us and enabled him to represent his dream.



Fig. A3 Numchok's old house in 2015



Fig. A4 Numchok's new house in 2018

Montha has sent me updated photos of the project. This photo is one of them. It surprised me greatly, because this is Numchok's house. It was completed in 2018. Comparing the new house and his drawing, it is a bit different because of budget limitations. The new house was built in the front of the old house. This house is durable, as he said. The roof is made of fibre cement sheets. The columns are wooden poles connected to concrete footings. They create space underneath the house floor. The large space underneath the house is used to keep belongings and feed chickens. However, the floors and walls are still made of bamboo. Photo: Pongsak Tonnamped

Supakid Josho

Supakid, 37 years old, moved to this area when he was 17 years old. He recived a piece of land to build the house and for farming, with a total of around eight *rais*. He works in the town as labour to obtain a minimum wage of 300 baht (£6) a day, and Tupimue (his wife) is unemployed.
"In the only rainy season, I will come back home to farm, and then in the other seasons, I will work in the town", Supakid said.

The present house was built from local materials; it is almost rotten. Supakid and Tupimue use black plastic to cover the roof to protect the house from the rain. Supakid keeps the building materials for building a new house underneath the house. The old house consists of two rooms (one for him and his wife, and another one for their sons), plus cooking and washing areas. The fireplace is in front of the rooms.

On 4 August 2016, I went to see them in the house.
"I had already the plan and idea to build a new house", he said.
The problem for me was that he did not attend the workshop last year, so I did not have his information and drawing.

"Could you show me the idea?" I asked.
I encouraged him to draw the house plan and explain to me the house form.
"How to draw it? Where?", he asked.
"Here! On the ground", I said.
He came down from the house and searched for a small tree branch with which to draw. He started drawing the plan by drawing grid lines.
"These are rooms for my sons and me. The new house would be similar to the present house, but it will be bigger. The roof is still a gable style roof with thatch", he said. [I listened to him; at the same time, I copied his sketch into my sketchbook].

"Why do not you use galvanised metal sheets?" I asked.
"No money", he said shortly.
"What do you do after the thatch becomes rotten?" I asked.
"If this one becomes rotten, I can weave a new thatched roof myself to roof [the house] again. I have the skill to weave thatch", he said.

Supakid Josho, 37 years old, 4 August 2016



Fig. A5 Supakid's old house before demolition

The old house consisted of two rooms; one was for him and his wife, another was for his children. In front of rooms were the cooking and washing areas and the fireplace. The verandah was the entrance. The house was rotten, so he needed to rebuild it.



Fig. A6 Supakid draws the new house plans on the ground

This process motivated him to build his dream house as he needed. We used straightforward tools around us to express ideas. It depicted a part of the design and building processes. He showed the spatial arrangement that fused the reality of life, space and matter and metal imagery into his dream house.

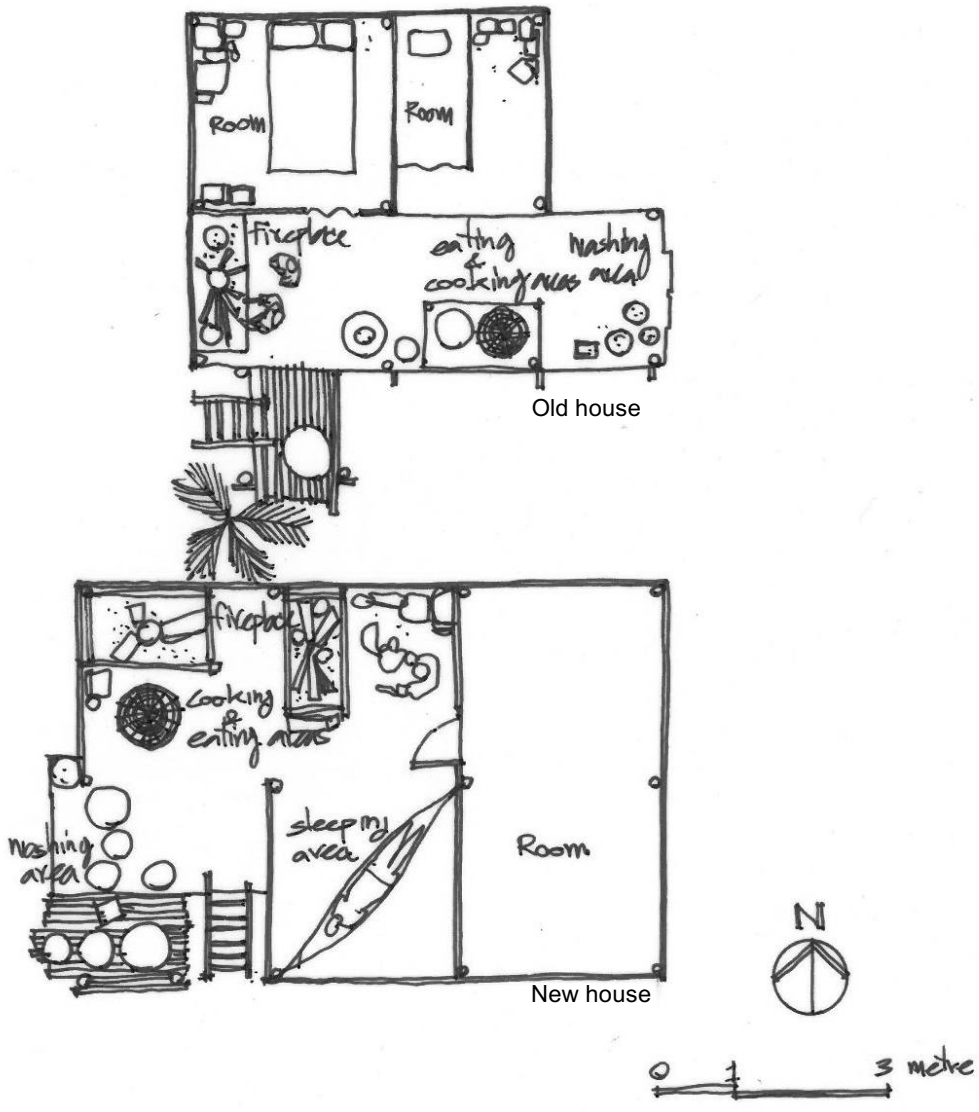


Fig. A7 Comparison between Supakid's old and new houses

The new house was built in front of the old house. It consists of a room and the sleeping, cooking, eating and washing areas. The house is bigger and stronger than the old one. The washing and cooking areas are still in the front area or next to the entrance. The roof is still of gable style and built from thatch.

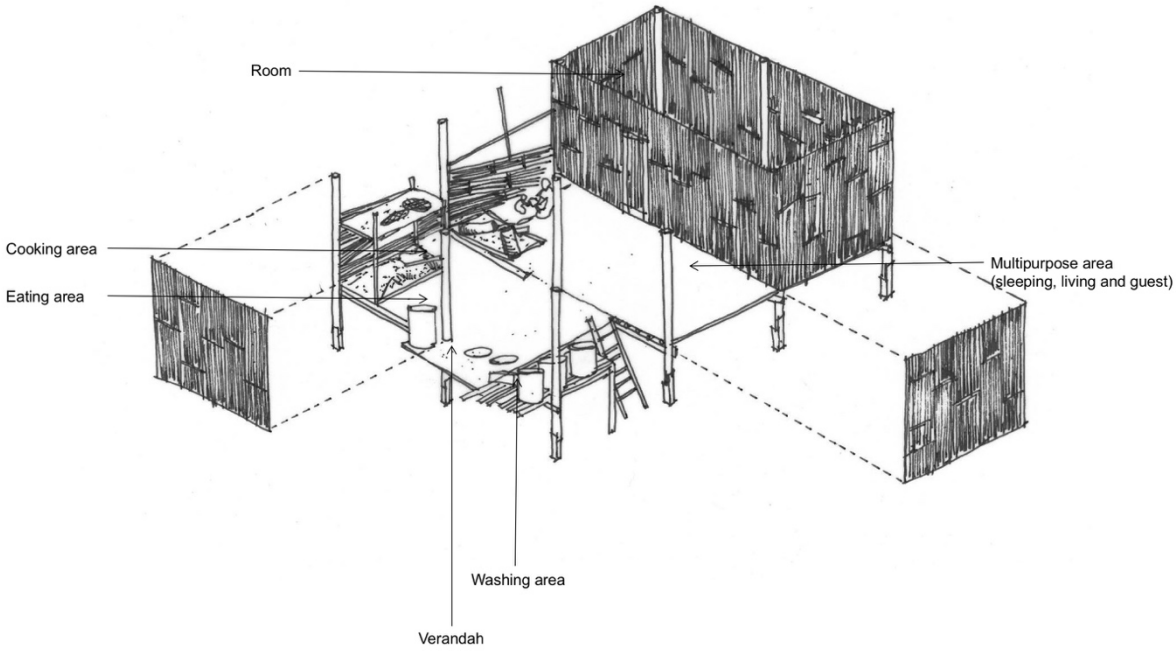




Fig. A8 Supakid and Tupimue's new house

The new house is similar in form to the old house. Supakid and Tupimue built a space underneath the house to keep their belongings and rest at noon. The house elements and structure are stronger than in the old one.

Supakid's experiences are collected here and shown in the building process. Rapoport (1969) notes that the folk tradition is the direct and unself-conscious translation into physical form of the culture. Supakid expressed his ideas on the ground unconsciously, which supports the concept of the vernacular house of Rapoport and Oliver that such a house is an unself-conscious thing.

Kittipot Chaya

December 2015
Tongdee was building a traditional bamboo house for Kittipot (his son) near to the community house. Tongdee was chopping bamboo to make flattened-bamboo flooring. His wife also helped him to chop bamboo.

"This is a traditional house without nails. We cut bamboo from those hills [he pointed to the hills on the west side of the village], but these bamboo poles are not good. They are quite thin and not good quality", Tongdee said.

"A bamboo house is a kind of temporary house. We all have basic skills with bamboo. We know that this is not a long-lasting house. We have to build it again and again", Tongdee said.

August 2016
I held a meeting at the community house. This meeting was to prepare to build houses in Phase 3. Kittipot's house was one of 37 houses in the list that needed to be rebuilt.
"I need to rebuild, I need a durable house. Although my house was built six months ago, the columns and joints are not durable", Kittipot said.

Traditionally the Karen use [natural] materials – thatch, leaves, bamboo and wood – to build the house. This house is therefore regularly repaired every year. They therefore look for permanent materials to create their dwelling, such as galvanised metal sheets, fibre cement roof sheets and sturdy wooden columns. Kittpot is one of many people that need to build a permanent house to create good living conditions under the strict regulations of the national park. The building becomes a crucial issue that raises a question about sustainable development.

Field notes, December 2015, July and August 2016

22 September 2016
I met Kittipot again at his house. I talked to him about the design, but I wanted to know about his personal history and he told me about it.

"I am 23 years old. I was born on the original land, but I grew up in this village. I spent 16 years in the town and graduated at grade 12 from the school in the town. After graduating, I stayed in the town for many months. Then, I returned to the village to help my father to farm. Today, I have one child", Kittipot said.

"Do you need to return to the original land?" I asked.
"I do not. It is hard to walk on the hills. I was evacuated when I was around three years old. I am familiar with this village rather than the original land. However, I encourage the Karen who need to return to live on the original land, if the park officials allow this. I asserted that I needed to live here with my parents", Kittipot said.

The dark cloud gradually covered the village, the rain was coming. Then, the rain fell very heavily. We sat and talked in a small shack in the front of the house.

Kittipot showed me a new house model. This model was a starting point for discussion. It showed the spatial relations and structure. For me, a model is like a drawing as a design tool. It is also a kind of an art object.

"My new house will consist of two rooms, plus cooking and multipurpose areas and a verandah. Then, the house's floors will be divided into four steps: the highest step is the rooms' floor, around two metres from the ground", he explained and pointed this out on the model.

He used his body scale to show me the height of the rooms' floor. The lowest step was the verandah, around 1.50 metres in height. (During the discussion, I sketched the house plan from our talk.)

"I need good ventilation and lighting. So, I do not need to build the front walls. The roof may be thatch or leaves, as I do not have enough money to buy galvanised metal sheets", Kittipot explained.

After the harvesting season:
Kittipot started building a new house next to the old house. The new house consisted of a room and a large space. A cooking space had not been built yet and he used the cooking space in the old house. I visited his house in June 2017; he still used both the new and the old houses, but the old house looked in poor condition. The roof had gone; he used black plastic to cover the roof to protect the old house from the rain. He only used the cooking space in the old house. He stopped building the new house because of the lack of building materials; however, it was almost completed apart from the cooking area. He planned to build more if he could obtain enough bamboo poles.

Kittipot Chaya, September 2017

Doimooyaw Pugad

"This 15-year old house still stands today because the galvanised metal sheet roof has protected the house from the weather conditions. If the roof leaks, it leads to the house decaying quickly […] Today, materials are running down. Therefore, I plan to demolish this house and rebuild it, changing the materials […] I will demolish the whole house. I need durable columns and galvanised metal sheets. […] and I need to extend the eaves to protect wooden columns from the rain. I will use both old and new columns. If it were roofed by thatch, it would be ruined within a few years", Doimooyaw said.

Doimooyaw Pugad, 2 August 2016

The general principle of the Karen housing project is that householders have to demolish and build the houses themselves. The teams of craftsmen assist by only building the house structure. There are different ideas about each house, depending on the needs and skills of householders.

Doimooyaw is demolishing his house. His house is rotten, including the columns. He said that some old columns could be reused.

"I will cut some rotten parts of columns out, then I will join the new and old columns together. I will use the old galvanised metal sheets because they are still in good condition", Doimooyaw said.

He attended the workshop in December 2015. His drawing shows the house form and plan. It consists of four main areas: the cooking and multipurpose areas, a room and verandah. The roof form is a gable.

"Are you still following the drawing?" I asked. *"Yes, but I need to change the roof form from a gable hip to become a gable roof, and then the eaves will be extended around 1 metre or more to protect the house. However, the house plan still follows the drawing"*, he responded.

17 August 2016
"I collected Portland cement a long time ago, and also collected sand and small rocks from the river to mix the cement. I try to use materials from around the village to save money. My house was built by three craftsmen and me: four people in total. We spent ten days building the structure", Doimooyaw said.

20 September 2016
"I changed the design a little bit because I do not have enough materials, such as bamboo and wood. I spent much time searching for bamboo to build the walls", Doimooyaw said.

Doimooyaw Pugad, August and September 2016

Lonnachai Ladoa

Lonnachai Ladao, 36 years old, is a community craftsman and one of the Karen leaders. In December 2015, he attended the workshop and designed a new house. His design showed three rooms, plus cooking and washing areas. The roof was of gable form.

"I have two buildings. The first building is for living, including two rooms and a multipurpose area. The second building is the kitchen. I will demolish the first one and then rebuild a new one", Lonnachai said.

I met him again in July 2016; he was building his neighbours' houses.

"When will you build your house?" I asked.
"It will be the last house in Phase 2. I plan to build a 20-column house", he said.

At 4pm we sat under the tree and talked about his new house.
"I have spare columns, around ten [of them], and then I got ten columns from the housing project, in total 20 columns. I have already prepared the columns, and I plan to build next week. The new design is quite similar to the previous one. The columns are designed to be in five rows in the north-to-south direction. Each column is three metres in height. We will build three rooms on the west side of the plan. The east side is living space and the centre of the house is empty space. I have five children. In the future, I may build more rooms for them, so now I need to build the empty spaces to adapt them in the future [not clear what kind of space]. The house's floor has three steps: the first step is a verandah. It is the main entrance in the south-east side, around 1.20 metres in height. The next step is the multipurpose space, around 1.50 metres in height. The last step is the rooms and living area, around 1.80 metres in height. The roof is [made of] fibre cement roof sheets, and the floors and walls are [made of] bamboos", he explained while I sketched.

"Why do not you build a gable hip form?" I asked.
"It wastes materials because I have to cut rafters of different lengths to create the hip, while the gable roof's structure is built with rafters of the same length", he explained.

One week later, he started building the structure following his plan. He spent a week to build the structure.

Lonnachai Ladao, 22 September 2016

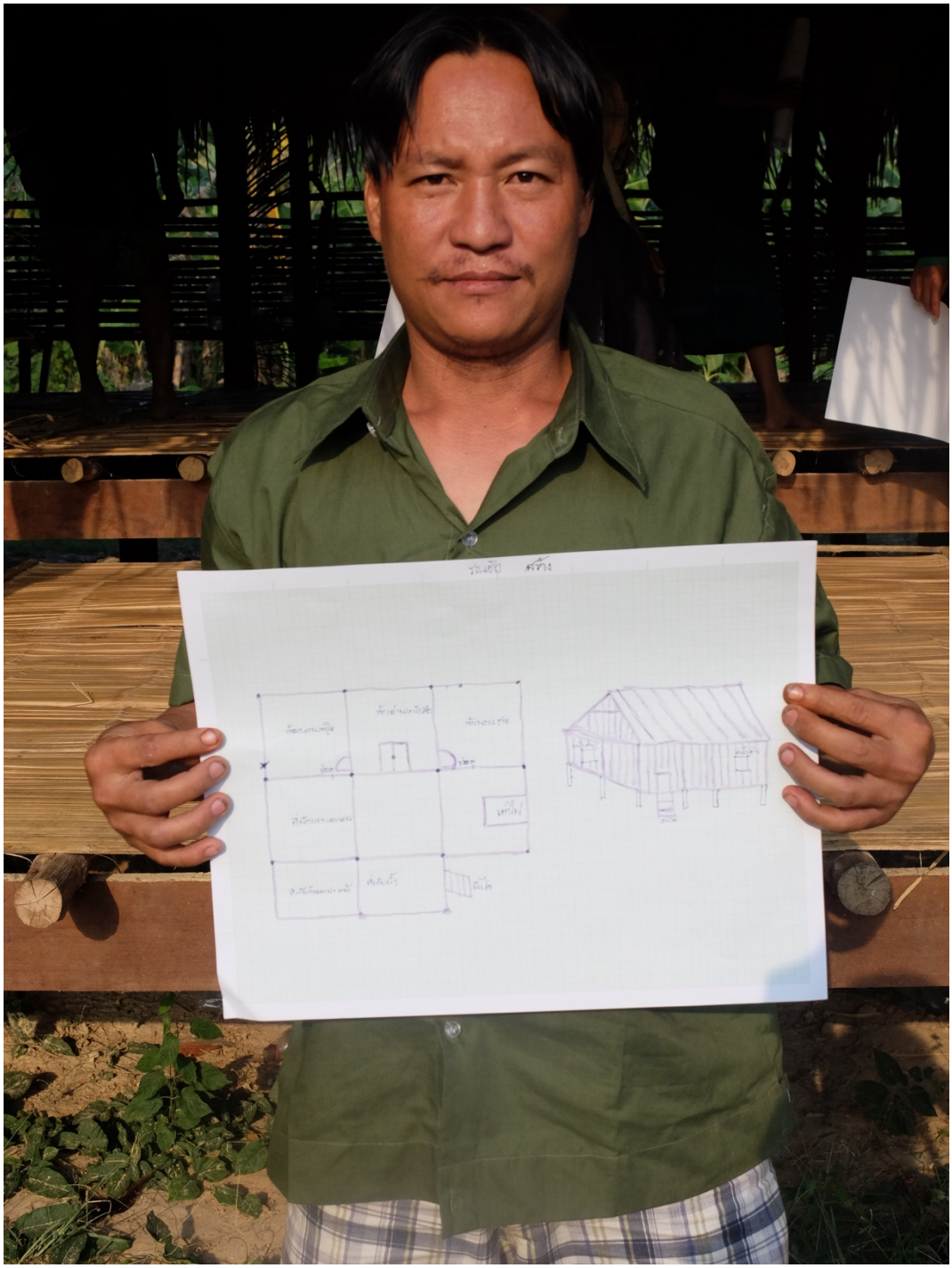


Fig. A9 Lonnachai and his drawing in the workshop, 2015

Lonnachai's drawing shows three rooms, a huge living space and a water storage area. He also drew the house in perspective; it is a gable form. It is the same design as the old building. The design made him realise the problems and how the new building should be, and how the building materials should be prepared.

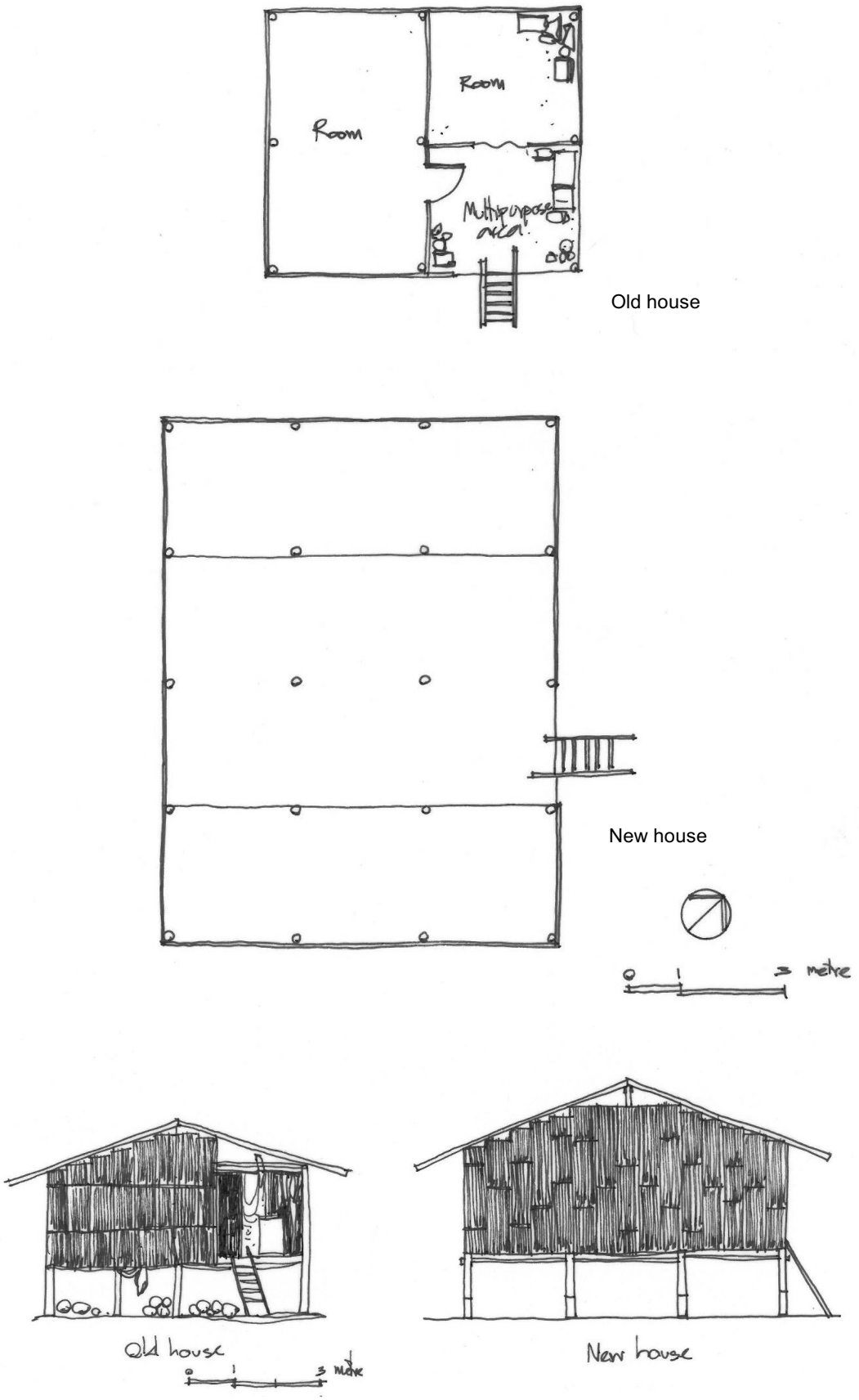


Fig. A10 Comparison between the old and new houses
During the fieldwork in 2017, Lonnachai's new house had not yet been completed. He needed more bamboo and time to build the internal spaces



Lonnachai's house in 2014



He demolished the old house and was building a new house in the same position as the old house.



The new house roof is made of fibre cement roof sheets.



The new house in 2016. Although the external form had been completed, the interior had not. Lonnachai said he needed more bamboo poles.

Fig. A11 Rebuilding process of Lonnachai's house

Jitsinee Kreajee

Jitsinee Kreajee, 32 years old, a woman who has been pregnant for four months, gains her main income from her weaving job: 130 baht per day. She works six days a week. She is waiting for her husband, who is working as a labourer in the town, to come to assist her to demolish the old house. Her husband will come back home approximately once a month. Jitsinee has three children living in her father's house at the moment because her house is rotten. Underneath the house, she stores eucalyptus wood and other materials to build the new house structure.

From the workshop, her design shows that the new house plan is divided into four main areas: the cooking, multipurpose and storage areas, and two rooms. The main entrance is accessed through the cooking area. The living space has a television. It is in the middle between two rooms. In terms of building materials, she is not quite sure that the old galvanised metal sheets can be reused or not, as some of them have leaked because she has used them since 1996. Today, she plans to change the roof materials. She has collected fibre cement roof sheets and kept them underneath her father's house.

5 August 2016
She told me about herself and other things.
"I wake up at 5 o'clock every day to cook rice for my children and parents. I barely walk up to the old house; I only walked up to check how I could demolish the house. This old house consists of a room and multipurpose area. A small verandah is at the front of the building. The thatch and leaves of the roof have been changed every year. Sometimes, if it is durable, it can be used for around two years […] The bamboo wall and floor were destroyed by moths. My old house was built after we were moved in 1996 by the national park […]
The old columns could be reused again because they are bigger than the columns from the project. […] If the old galvanised metal sheets can be reused, I will use them, but many of them leaked because they have been used since 1996. I am afraid that when we demolish [the house], they will collapsed […]
We already bought fibre cement roof sheets a long time ago and kept them under the house. I plan to use them to replace the leaking galvanised metal sheets. […] I have also already prepared bamboo walls and floors. […] We will demolish the whole house and build it again, because the entire house has almost been ruined", Jitsinee said.

Jitsinee Kreajee, 32 years old, 5 August 2016

7 September 2016
Chanui [Jitsinee's husband] returned to the village. He came to build a new house. He was working as a peasant on the Dansingkhon border [Thai–Myanmar border], in Prachuab Kiri Khan province in Southern Thailand. He was born on the Thai–Myanmar border and was moved here in 1996.

"We have already prepared the materials, such as bamboo, fibre cement roof sheets and galvanised metal sheets. We have a limited budget; we have to save as much as we can. We tried to use the materials from the old house such as galvanised metal sheets, hardwood and old columns", Chanui said.

Today, Chanui has already built the new house, around 70 percent of it. He is building following the old house plan and adding the cooking area on the west side, around 18 m^2. The new house is divided into two rooms, the living area, the cooking area, a verandah and the ground floor. It is a bit different from Jitsinee's [his wife's] design.

"I bought bamboo at 60 baht per pole from the villagers, but it is still not enough", he said.
"If the house is finished, will you live in here?", I asked.
"I am not quite sure because I have no plot of land here, I need a job. If I have a job, I will stay in the village. If not, I may return to work at the Dansingkhon border", he said.

Overall, the house structure is similar to the old house, but the new house is more durable than the old one.

Chanui Buasri, 7 September 2016



(a) (b) (c) (d)

Fig. A12 The journey of Jitsinee
Jitsinee attended the workshop in December 2015 (a, b). In September 2016, she was four months pregnant and showed my drawing and her photo from the workshop (c). Her house was completed at the end of 2016. She is holding her seven-month-old baby during her interview in the new house (d). For her, the house was a process over time.





Fig. A13 Chanui (Jitsinee's husband) building a new house in 2016

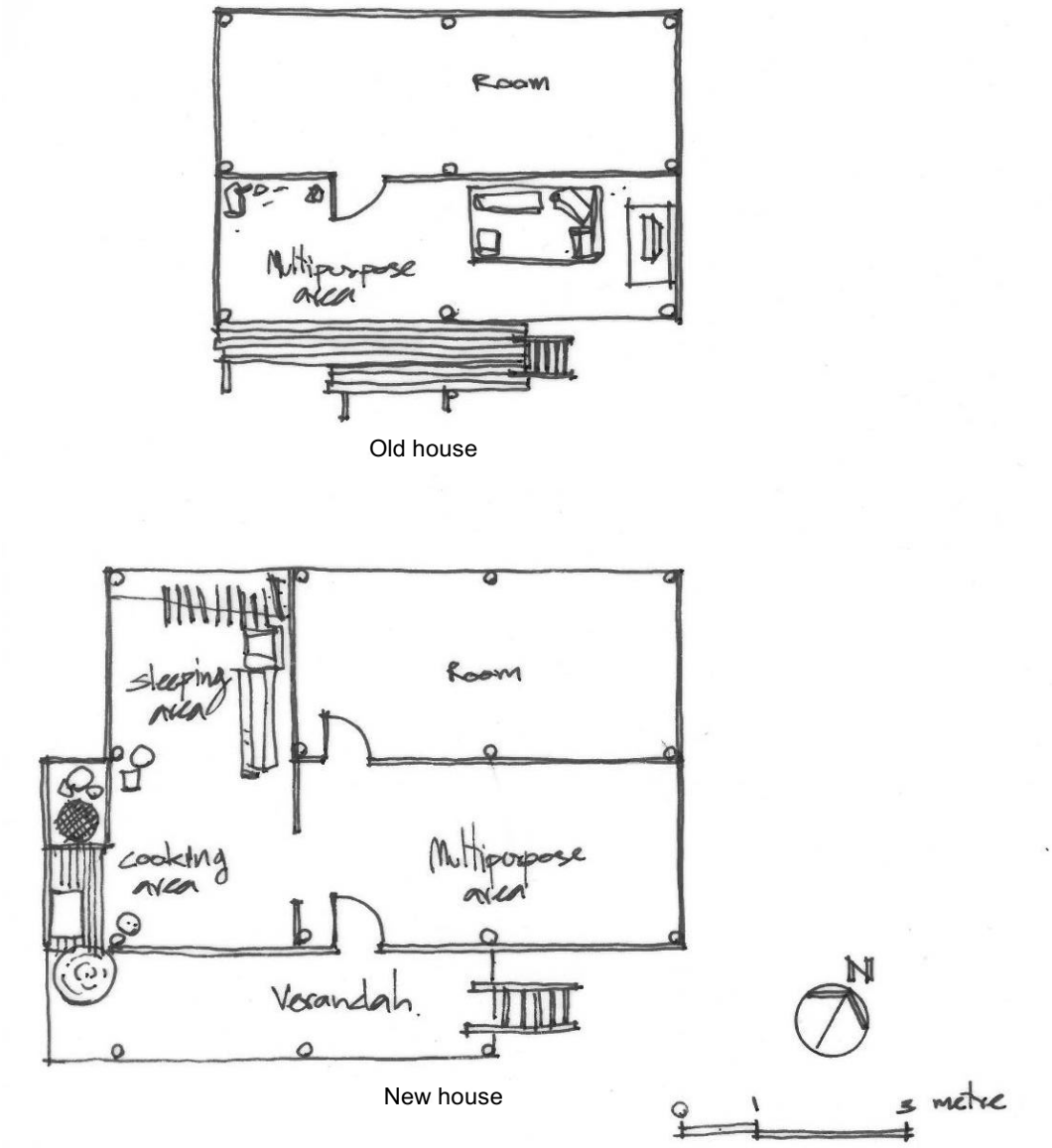


Fig. A14 Comparison between the old and new house plans

Jitsinee and Chanui rebuilt one room, the house ladder and other spaces in the same position as the old house. The cooking area was built in the west. Next to the cooking space, there is a sleeping area for children. Physically, the house size and area has increased. Jitsinee and Chanui combined old and new materials together, such as galvanised metal sheets and fibre cement roof sheets. Overall, their new house is derived from the modification of the form, space and structure of the old house.



The old house in 2013; it was rotting.

In 2016, I met Jitsinee at the house and talked to her about the design. I sketched and brought her photo from the workshop to compare the old and new designs. They are similar.

The new house was completed in 2016.

Fig. A15 Comparison before and after building the new house

Sombat Jareoansook

Sombat Jareoansook, 58 years old, lives with his wife and three grandchildren. He is a farmer and his wife is a weaver. He has ten children, three daughters and seven sons, but only one daughter lives with them. The oldest son is 40 years old, while the youngest son is 12 years old. Most of them got married, and live outside of the village with their families. The last child is now studying in the town; he will come back home approximately once a week.

The old house consists of a room and cooking, sleeping and multipurpose areas. He and wife usually sleep in front of their grandchild's room. Next to the sleeping area is a small cooking area. The fireplace is in the corner of the cooking area, and above it is a shelf to keep dried food, such as dried meat or fish. The basic food of the Karen is various vegetables, such as beans, gourds, aubergines and bitter melons. They store water in many buckets on the small verandah outside the cooking area.

4 August 2016
Today he has already demolished part of the building.
"I will move all my belongings to keep them in my daughter's house", Sombat said.

He designed a new house in the workshop in December 2015.
"Do you recognise your design?" I asked. "*Yes*", he said.
"How was it?" I asked.
He smiled and laughed. I thought he did not know how to explain because he could only speak a little bit of the Thai language.

"Do you have a piece of paper?" I asked.
He looked around and found a used notebook of his grandchildren. I picked a photo from my bag: it was a photo of his drawing from the workshop. "*Do you remember this photo?"* I asked. He smiled and said, *"Yes, I do".*

I copied his drawing by drawing it in my sketchbook. His design is a 16-column house. The front area is a multipurpose area, and the middle part of the house has two rooms. The back of the house has the cooking and eating areas. The main entrance is still at the front, with access through a small balcony. We discussed the drawing. It worked on two levels; facilitating the design process and mediating his ideas.

"Why do not you demolish and extend some parts of the house?" I asked. "The house elements are rotten; for example, the bamboo floor structure and the bamboo wall must be changed. We need to change the house structure into a durable one. We plan to use galvanised metal sheets on the roof", he responded.

In August 2016, I revisited the village and saw him at his house. The house was being rebuilt.

"Is this house like your idea?" I asked.
"Yes, it is the same", he said.
"Where is the main entrance?" I asked.
He pointed it out and said, *"this side".*
"Do you need to build a small balcony?" I asked.
"No, I need to build it like the old one, which had no balcony. Then, there is the reason for the position of the entrance. It should face east. I believe that", he said.

This is similar to Thai culture, which believes that the west represents death, and the east represents the goodness and the direction of the enlightenment of the Buddha.

Sombat believes in an auspicious direction, which is the east. This is to bring well-being to the occupants. He demolished and rebuilt the house by changing the house front from the west to the east. However, the arrangement of spaces in the new house is similar to the old one. For instance, the sleeping room is still the northern part of the house. The cooking area is the southern part of the house, but he has built one more room next to the cooking area. As such, it can be seen that the spatial arrangement is entwined with the familiar in everyday life and the cosmological perspective.

"What is the height of the house you need?" I asked.
"We should walk through underneath the house. It is probably the same height as the old one. I will create a concrete foundation to protect the columns from moths and termites", he said.

"Who will go to cut bamboo?" I asked. *"I have already prepared it. It is covered with black plastic. I will move it to build the floors and walls as quickly as possible […] I bought 19 galvanised metal sheets. However, this is still not enough"*, he said.
[While demolishing the house, he built a temporary living space to keep his belongings and to live in. He stayed in the temporary living area alone at night; it was a place for his grandchildren.]

"Once the house is completed, will you need to extend [to make] more space?" I asked. "*No, it is a complete idea now*", he said.

Sombat Jareoansook, August 2016

Lami Jaroensook

Lami Jaroensook, 57 years old, lives in a house consisting of two rooms, plus cooking and multipurpose areas. He has four sons and one daughter, but only one son and the daughter live in the village. Three sons live outside the village because they work in the town. His house was built 13 years ago.

6 September 2016, at his old house.
"I changed roofing materials 2–3 years ago. Some parts are galvanised metal sheets; some parts are thatch. The rotten thatched roof is now covered by black and blue plastic. I created the thatched roof myself", Lami said.

"On the north side of the house plan are the cooking and eating areas; the south side has the multipurpose space – sometimes it is a living space and a sleeping area for my son. The east side has a room, which is quite messy. A small room is also located on the west side", Lami said.

The inside of the room is somewhat messy and chaotic. He hangs clothing on the walls and foods on the beam. He puts bowls, plates, batteries, small buckets and many kinds of items on the floor.
"Who sleeps in this room?" I asked.
"My wife and I sleep in this room, and my sons sleep outside the room", he said.

In front of the room is a cooking area. There are bowls, plates, dishes and pots lying on the floor. Pans and many other items hang on the wall and beams. There are braziers in the corner.

Ekkachai [Lami's son], 26 years old, studied in the town from elementary school to Vocational Diploma. *"I worked in the hotel for one year. I have just returned to the village. When I returned to the village in September, I also bought 60 galvanised metal sheets from the town"*, Ekkachai said.

Ekkachai also bought bamboo from the villagers who cut it from the forest. This bamboo are not of good quality [he showed me moths on his bamboo]. *"I have just taken it from the river, and the moths come to eat the bamboo very quickly. That is why I said these are not good bamboo poles",* he further said.
"How many bamboo poles do you need?" I asked. *"Around 60 poles for both the floors and the walls"*, Ekkachai said.

Lami and Ekkachai Jaroensook, 6 September 2016





Fig. A16 Old house belonging to Lami Jaroensook
Above: front of the house
Below: cooking area

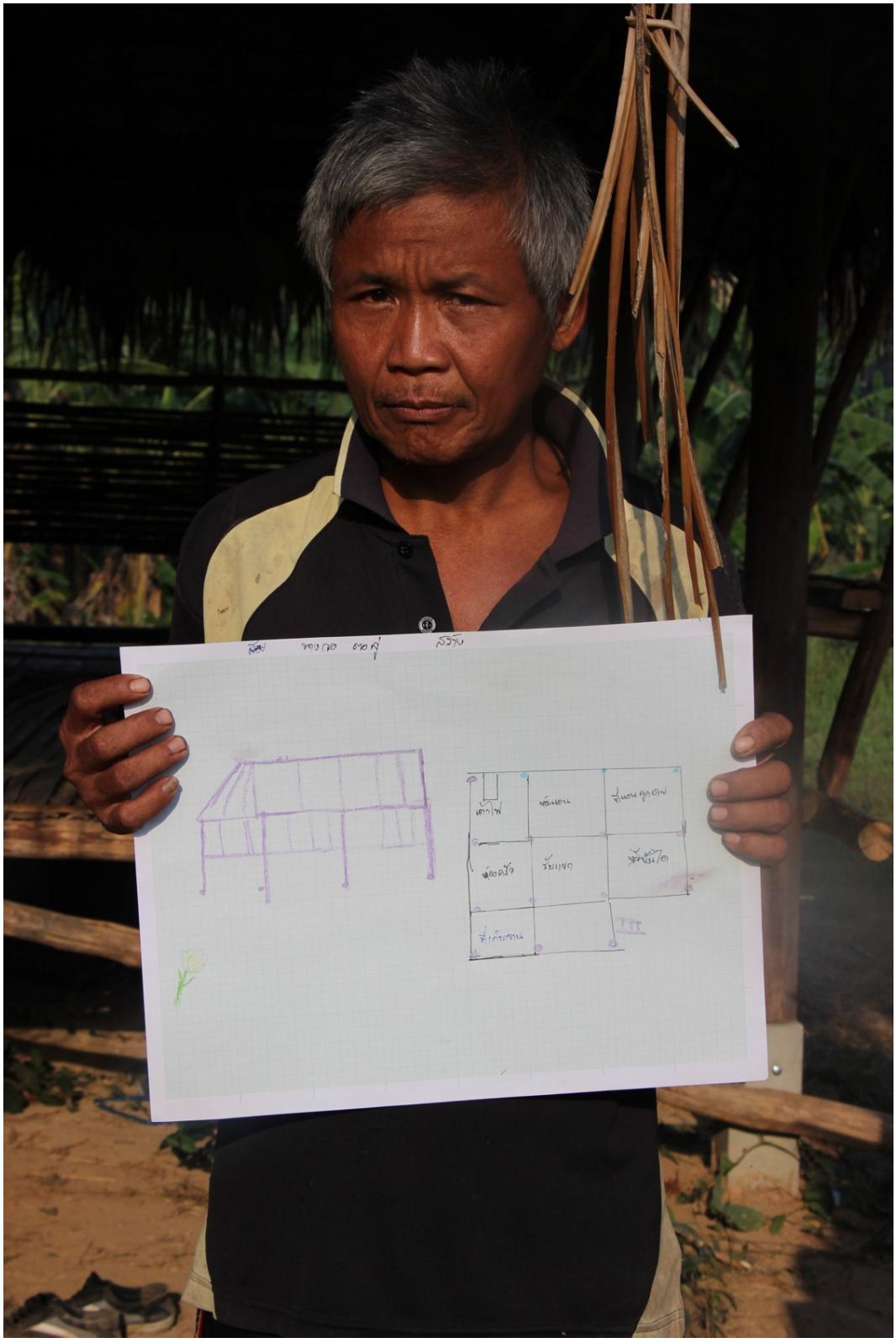


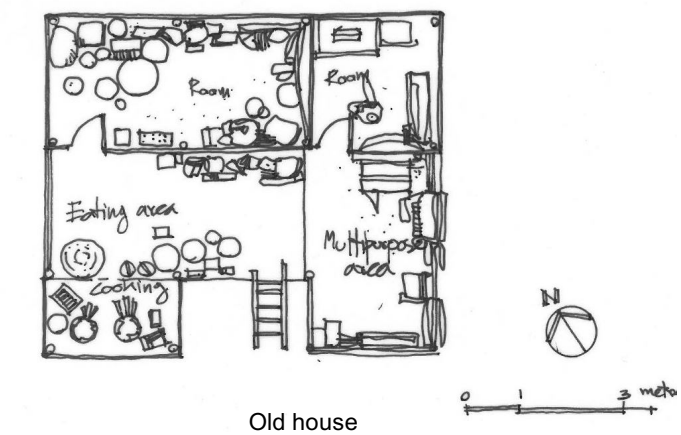
Fig. A17 Lami and his drawing from the workshop in 2015
Lami shows the drawing of the elevation and the house plan. The house consists of cooking, multipurpose and washing areas and two rooms. The house is of gable form. These lines will be transformed into the actuality of the house.

I revisited the village in September 2016; Lami's house structure was already built, except for the floor structure. The next day, they roofed the house by using galvanised metal sheets and built some parts of the floor structure. The new building consists of cooking and multipurpose areas, a verandah and two rooms. According to the workshop design in December 2015, the new house is a bit different from that.

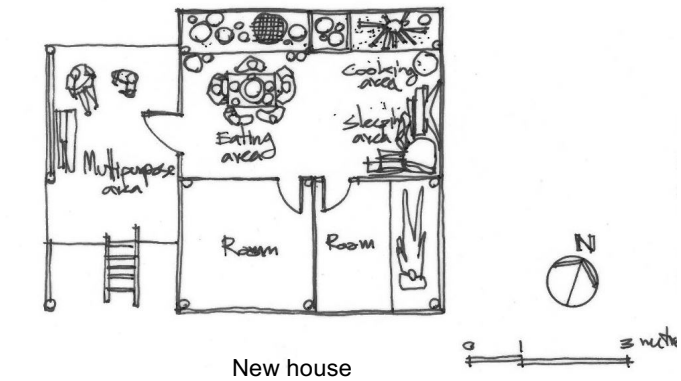
"Did you follow the design from December 2015?" I asked. *"I changed and adapted the design because, at that time, I was going to build the house in the perpendicular plane to the neighbour's house. I changed my mind because we believe that if people build their house perpendicular to neighbouring houses, it will bring ill fortune to the occupants. I therefore adopted the design by setting out the house layout in the same plane as the neighbours' house plan",* Lami responded.

"Also, the Karen usually create an odd number of steps on the ladder. We believe that an even number will bring inauspicious things to the family. When I created a ladder, my father said, "No! No! The closing strings should not be of equal length. One should be long, and the other one should be shorter. […] There should be an odd number of rungs, such as three or five rungs". Ekkachai said.

Lami and Ekkachai Jaroensook, 6 September 2016



Old house



New house

Fig. A18 Comparison between the old and new house plans

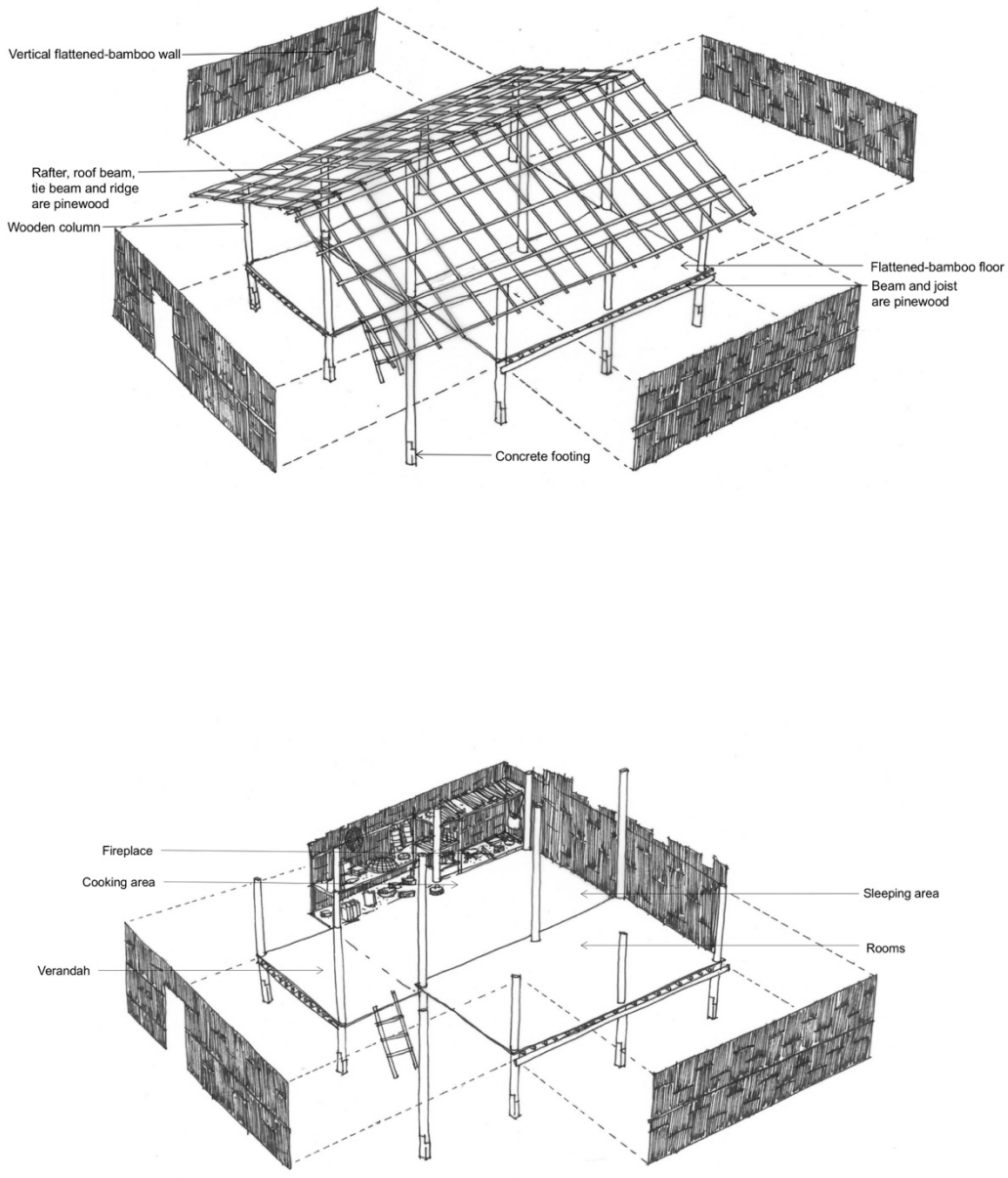


Fig. A19 Lami's new house: structure and spaces



Fig. A20 Lami’s new house

The new house consists of two rooms, plus cooking and multipurpose areas. The cooking area is in front of the rooms. There is a sleeping area for his daughter in law. Next to the cooking area is the multipurpose space, which today is a Lami’s sleeping area. For this new house, he rebuilt the fireplace, but in the old house he used braziers to cook food.

Lee Pugad's House

> In the afternoon of 27 July 2017, I visited Lee's family. They were having lunch in the house. This house was completed last year. The old one had two rooms and a cooking area. They demolished the old house in September 2016 and then rebuilt it in the same form by reusing the old materials. The height of the old house floor was around 1.20 metres; in contrast, in the new house it is around two metres. In addition, they changed the front of the house from the east to the west, to face the path. The new house is divided into cooking, eating and living areas, plus one room.
>
> *"Wood and galvanised metal sheets came from the old house; we bought only the nails. […]". "Who usually sleeps there [in the space in front of the room]?"* I asked. *"My wife and I sleep there because of the moth-eaten bamboo on the wall in the room. I do not know how to get rid of it, I will let it eat bamboo until it has had enough, and it will be away. When it has eaten it completely, it will stop eating",* he said and laughed. *"Now we cannot sleep inside the room, we feel itchy. The moths do not eat the old bamboo but they do eat new bamboo. The new bamboo is all eaten"*, Lee's husband said.
>
> Lee explained about the ritual before and after building a house.
> *"Before demolishing a house, we have to carry out a ritual to tell the land and the house spirits. We call it the 'eating chicken ritual'. It is an annual ritual for family to tell the land and house spirits. For this ritual, we have to wait for all household members living outside the village come to join together. If our household members do not all come, we cannot carry out the ritual, while outsiders to the family are not allowed to join the ceremony",* Lee said.
>
> Lee Pugad and husband, 27 July 2017

After rebuilding, the cooking area is still in the northern part of the house plan, but a room has been moved from the south-west to the north-east of the plan. The multipurpose area is still in the front area; it is next to the ladder because the house has been raised from 1.20 metres to two metres. There is plenty of space underneath the house to store belongings and feed animals. Lee and her husband designed and built the internal spaces following their functions rather than believe in an auspicious direction. For example, the front of a new house faces the path and the river. However, they believe in and pay respect to the spirits of the house and land, as well as their ancestors, who will bless them with fortune and well-being.

Appendix C: Photographs taken by the Karen

What are the most important things in their houses? These photos came from 59 households.
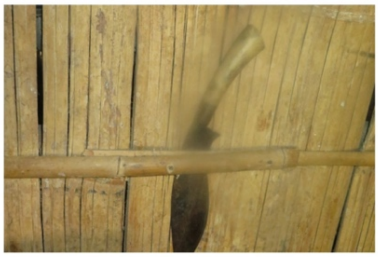




























































200
150
100
50






















































FORTH













Appendix D: Selected drawing and sketching

These drawing and sketching were done during fieldworks 2013-2017. It divides into four periods: 2013-2014, 2015, 2016 and 2017. This method and technique were practiced alongside the other methods such as interview, observation and photographic methods.

Drawing in 2013–2014



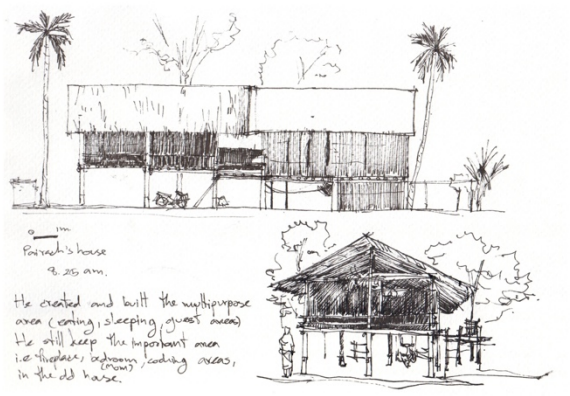


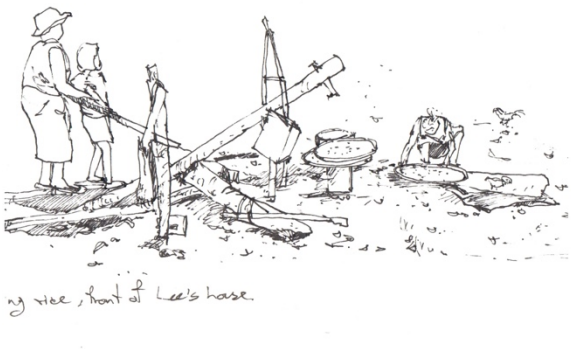


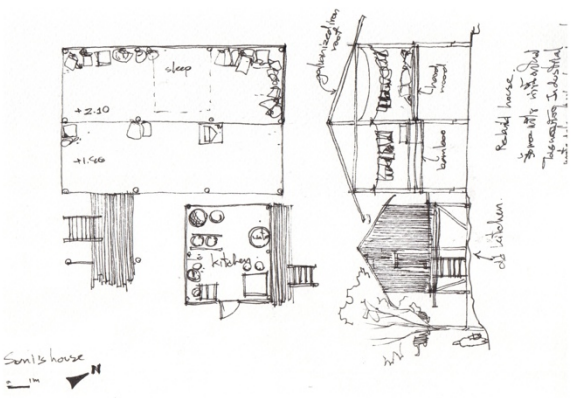
Drawing in 2015

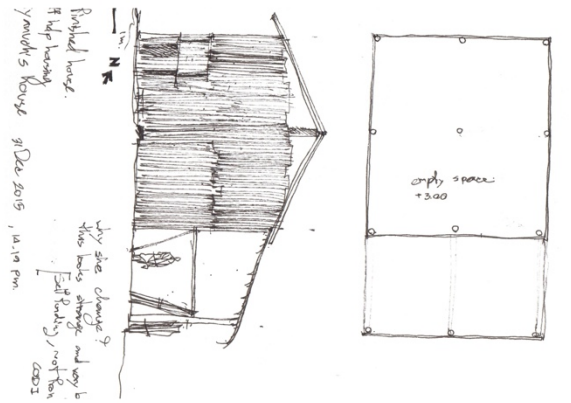


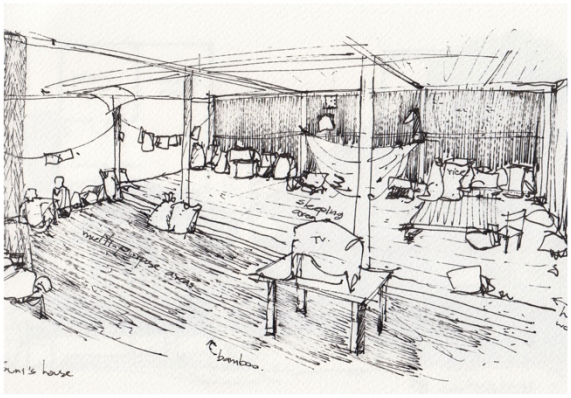


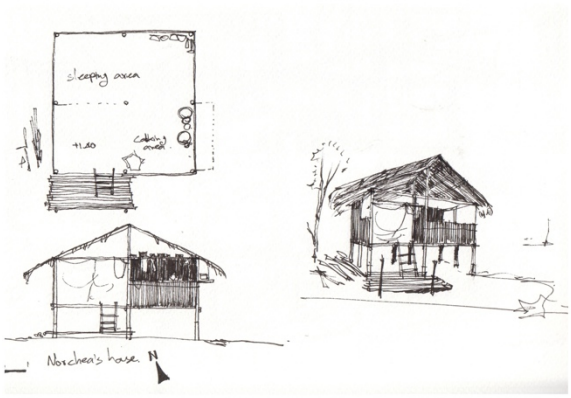




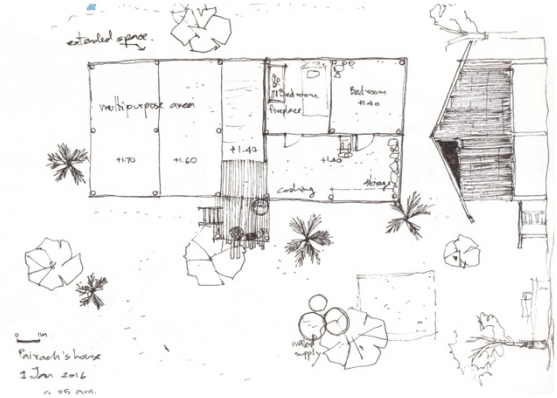


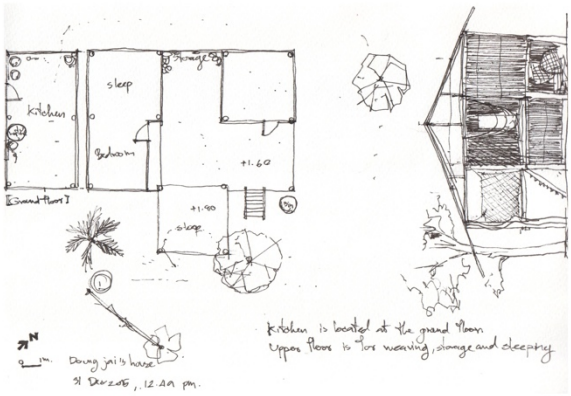




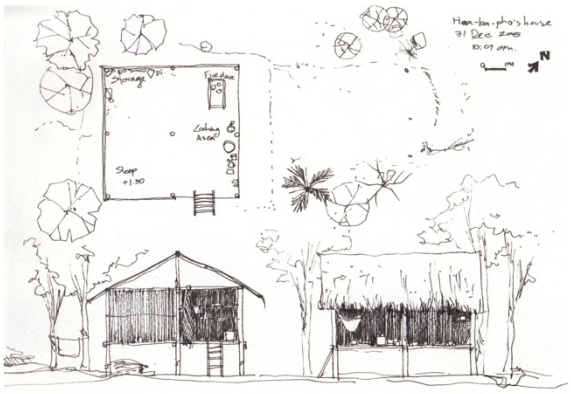


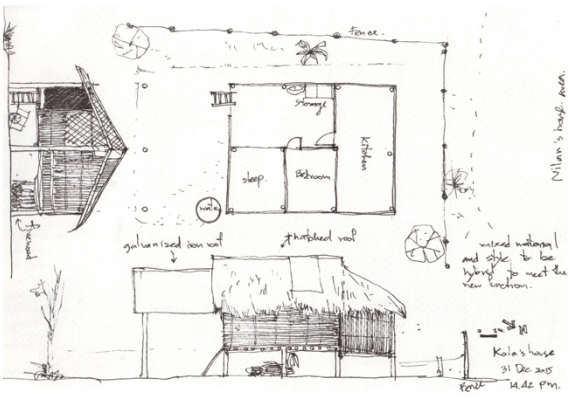

bedroom
sleeping area
cooking area
Dam's house

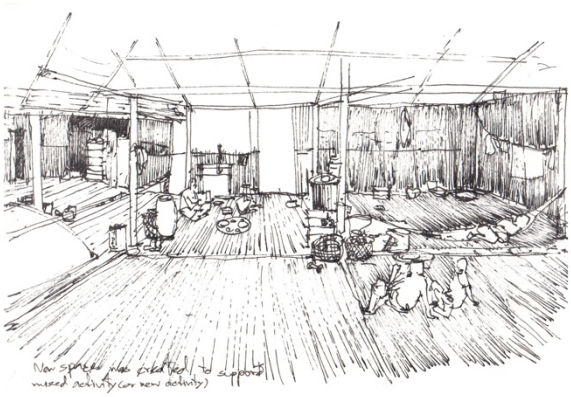

extended space
multi purpose area
bedroom
fireplace
Bedroom
+1.70
+1.60
+1.43
+1.45
cooking
storage
Pairach's house
1 Jan 2016


kitchen
sleep
storage
Bedroom
+1.60
+1.90
sleep
Ground floor
Dang jai's house
31 Dec 16, 12.29 pm.
kitchen is located at the ground floor.
Upper floors is for weaving, storage and sleeping

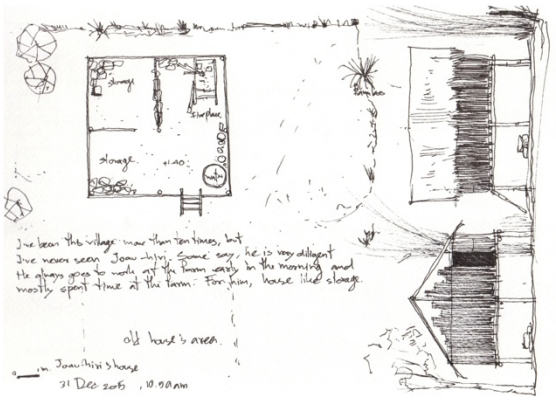

Tukmu's house
His family was moved since years.
Currently, nine people live in this house, he therefore extended sleeping space for seven children. Interestingly, he built a room for storage, not for sleeping
He said, we love to sleep in the open air.


Han-lan-pho's house
31 Dec 2015
10:09 am.
Storage
Kitchen
Cooking Area
Sleep
+1.30

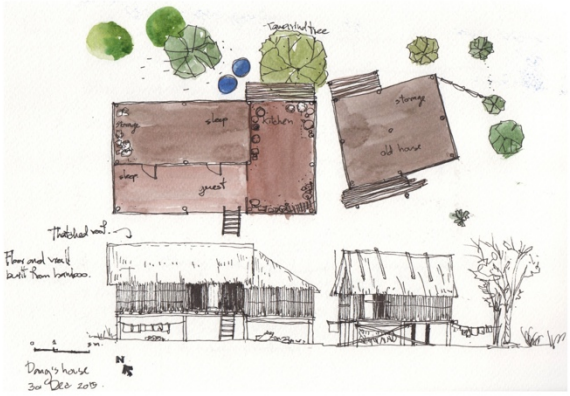

fence
Storage
Kitchen
sleep
Bedroom
galvanized iron roof
thatched roof
Nilan's house area
Kola's house
31 Dec 2015
14.02 pm.


New sparkle slab picked up to support
mixed activity (or new activity)

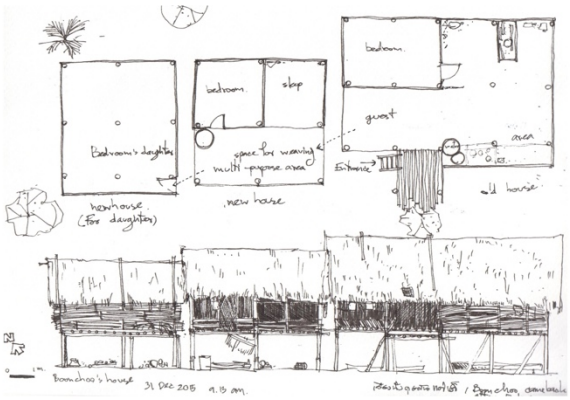

Dang jai's house


storage
fireplace
storage
+1.40
old house's area.
Joun thiri's house
31 Dec 2015 , 10.00 am

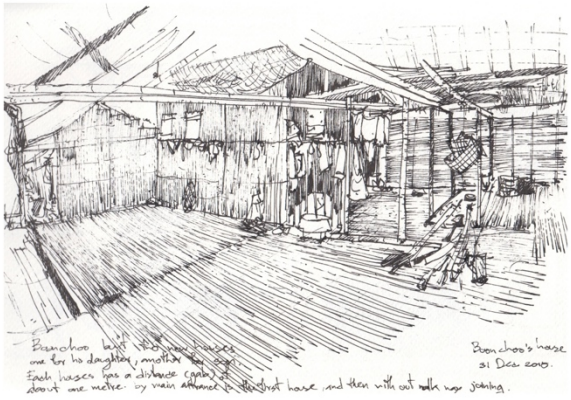

Saiwan's house
Eight people live in these houses. Left hand side is the new house consisting of sleeping and cooling areas, while another one is working area and big bedroom. Both houses were connected by small walk way.
Fireplace and cooling area. Saiwan's house.

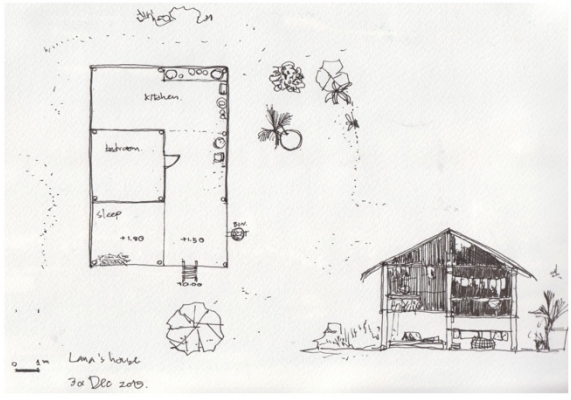

Tamarind tree
storage
sleep
kitchen
storage
old house
sleep
guest
Thatched roof
Floor and wall built from bamboo.
Dang's house
30 Dec 2015

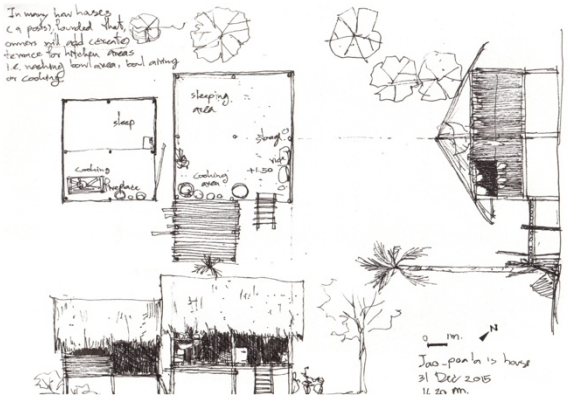

She regrets a new house under the original form and space which just changed the material structure to provide strength from bamboo structure.
Dang's house

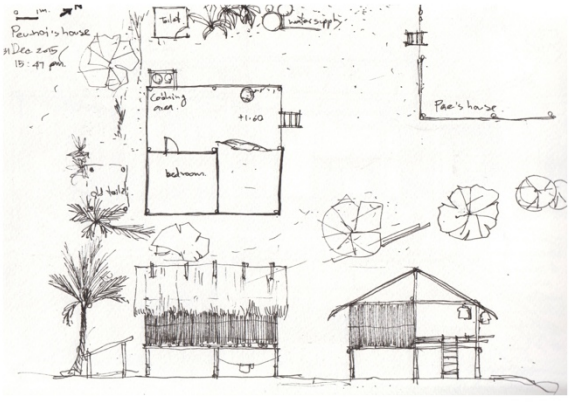

bedroom
sleep
guest
area
Entrance
Bedroom's daughter
space for weaving
multi-purpose area
hen house
(for daughter)
new house
old house
Boon choo's house
31 Dec 2015

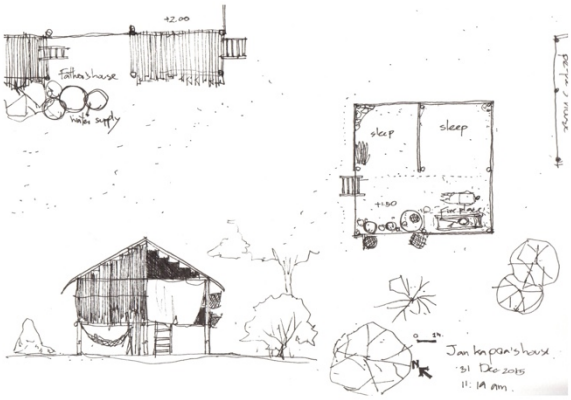

Lan's house
30 Dec 2015


Boon choo built two houses one for his daughter, another for self. Each houses has a distance (gap) of about one metre. by main entrance to the first house and then with out walk way joining.
Boon choo's house
31 Dec 2015

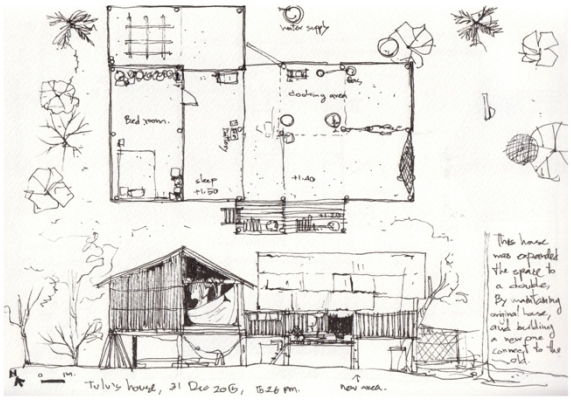

kitchen
bedroom
sleep
+1.90
+1.50
Lan's house
30 Dec 2015

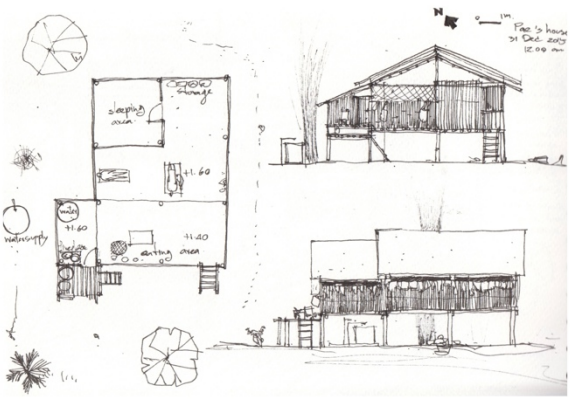

In many bau houses
(e.g pods) founded that
owners will add concrete
terrace for kitchen areas
i.e. washing bowl areas, bowl sitting
or cooking
sleeping
area
sleep
cooking
area
+1.50
Jaa-pan la's house
31 Dec 2015
11.20 am.


Paw Ni's house
31 Dec 2015
15:47 pm.
Tilled
cooking
area
+1.60
bedroom
Pae's house

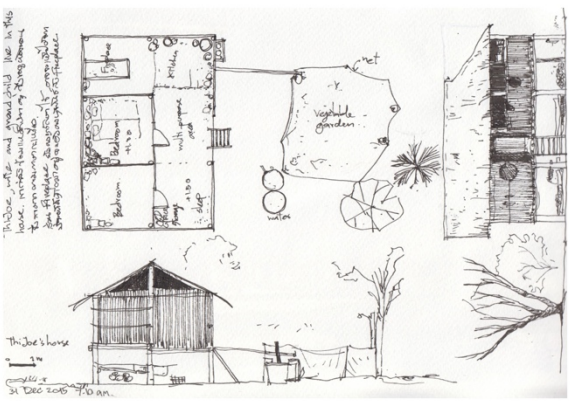

+2.00
father's house
water supply
sleep
sleep
+1.50
Jan kapan's house
31 Dec 2015
11.14 am.

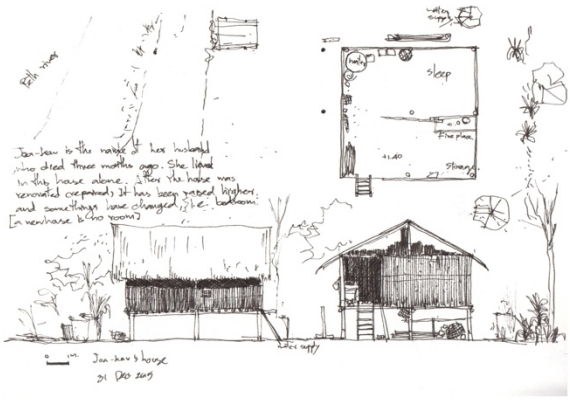

Old church area, Recently starts area because the public space (sports)
The church was moved to the north end of the village, and then left it as
27 Dec 2015


water supply
cooking area
Bed room.
sleep
+1.50
+1.40
This house
was expanded
the space to
a double.
By maintaining
original house,
and building
a new one
connect to the
old.
Tulu's house, 31 Dec 2015, 15:16 pm.
new area.

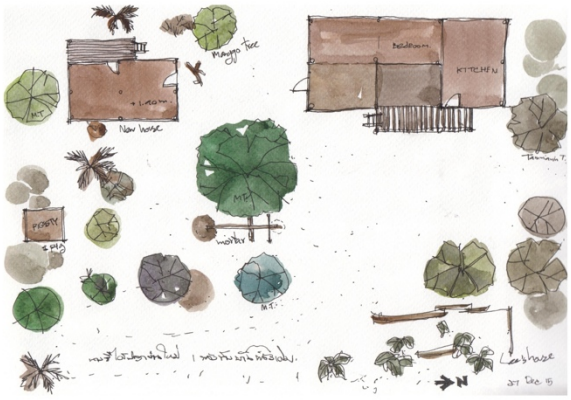

Pae's house
31 Dec 2015
12.09 am
sleeping
area
storage
+1.60
water
+1.60
eating area
+1.40
waterway

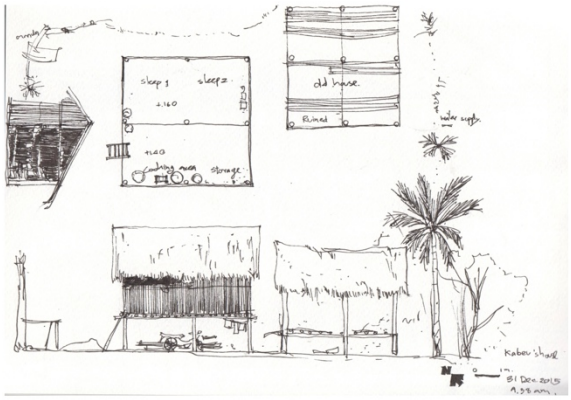

Thi Joe's house
31 Dec 2015
7:35 am

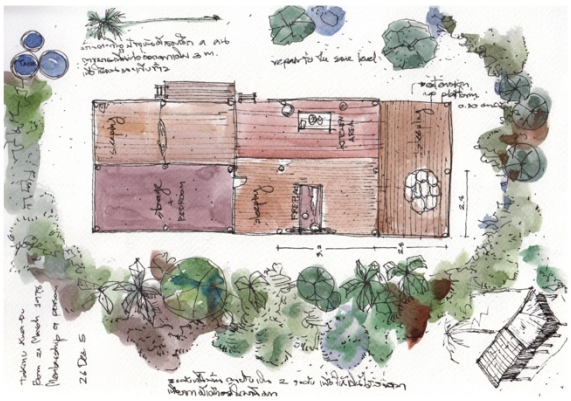

Vegetable
garden
net
water
Thi Joe's house
31 Dec 2015 7.10 am.


sleep
Jan-kav's house
31 Dec 2015

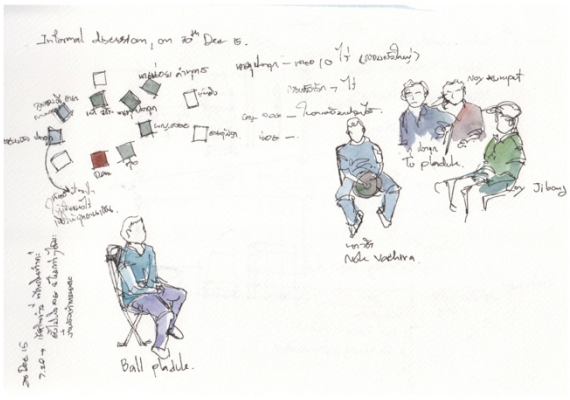

Jan-kav's house.
She built a new house, which is located south of the old house.
Her assets surrounding trees, covered with mango and tamarind trees.
Her workers, shared close to others (neighbours).

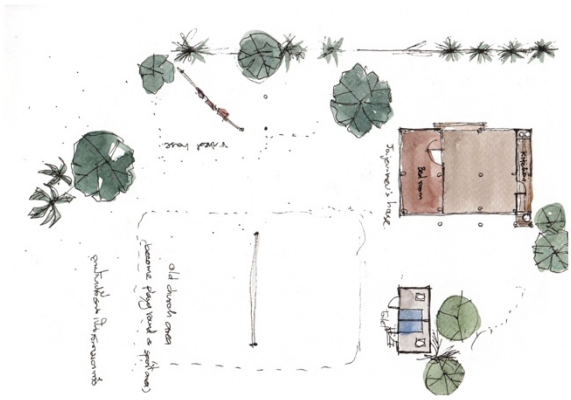

mango tree
New house
KITCHEN
MP
MOTOR
PUMP
Jan-kav's house
27 Dec 15


sleep 1
sleep 2
old house
Ruined
storage
water supply
Kaben's house
31 Dec 2015

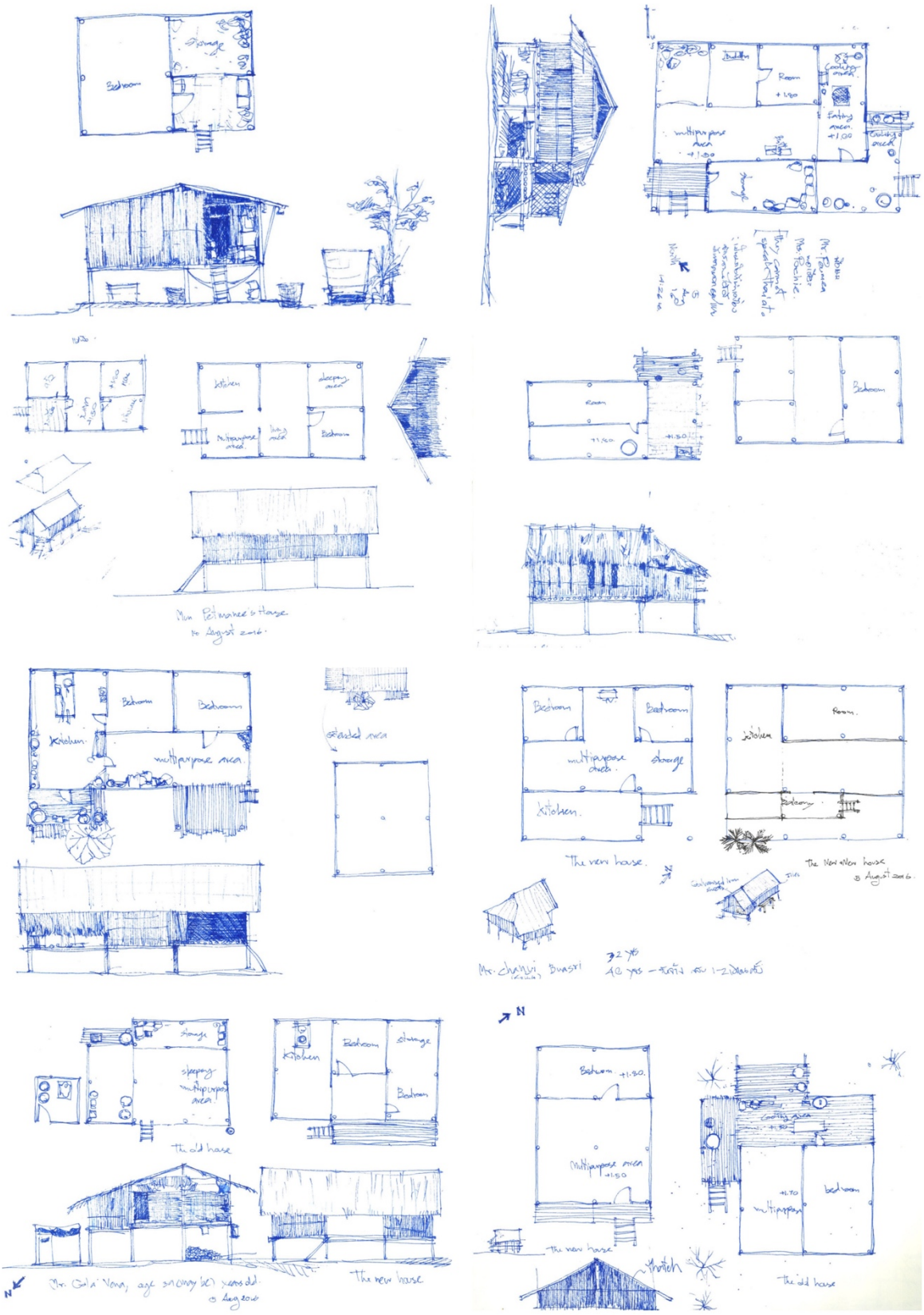

Kaben's house
Born in Kaoh Smach
27 Dec 15

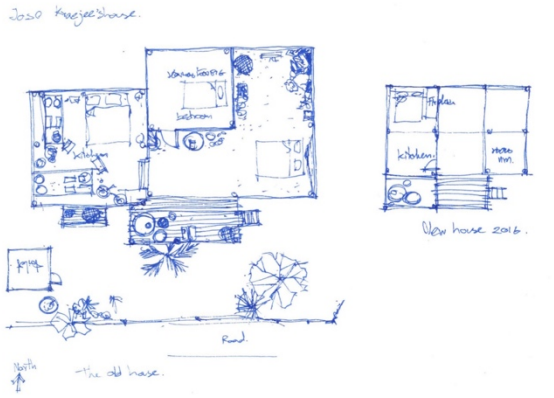

Pol's house
Door - like windows, in order to protect chickens into the house.
Inside another door (sub entrance) access to the kitchen.
The wall made from bamboos only, but the floor has many different characteristics (i.e. hardwood/bamboo

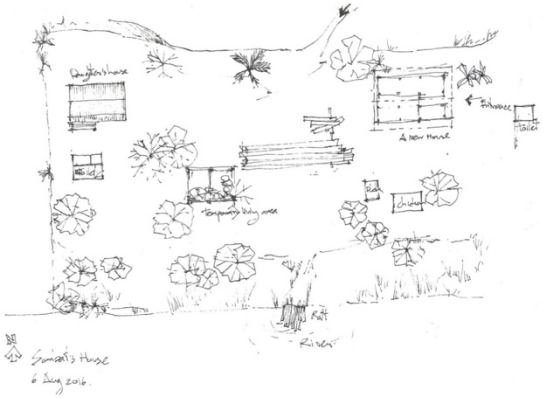

Informal discussion, on 28th Dec 15.
Ball paddle.
Jibay
Neth Veshira
to play.


old school area
Neighbour's house

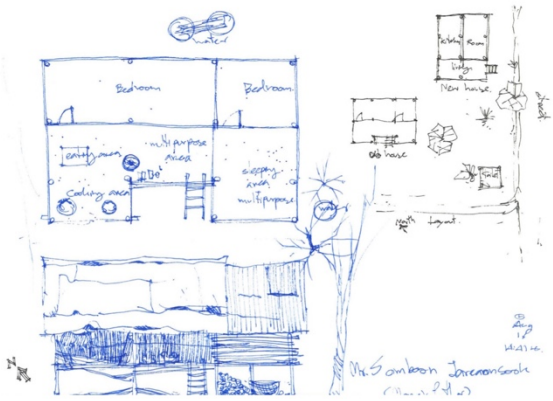
Drawing in 2016

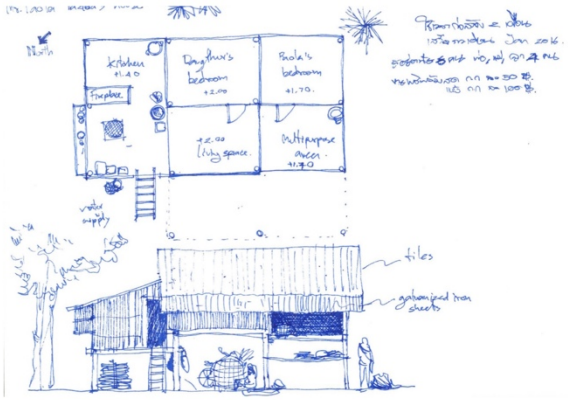


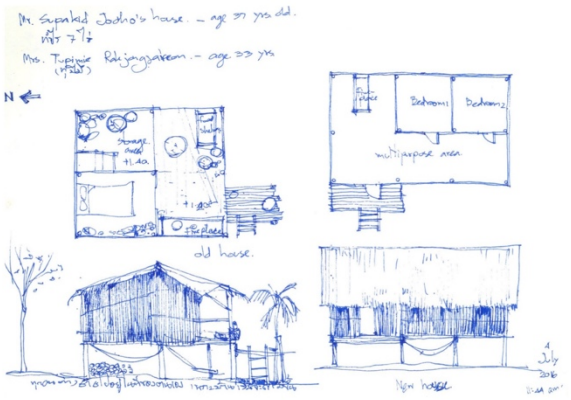

Jozo Knezic's house.
Bedroom
Kitchen
Road
North
the old house.
Kitchen
New house 2016.

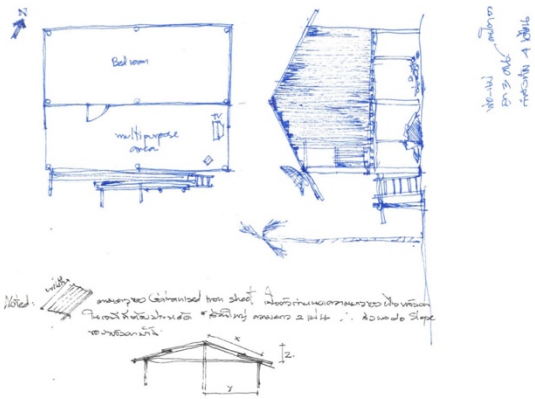

Daughter's house
Shower
A new house
Temporary living area
Chicken
River
Sumart's House
6 Aug 2016.

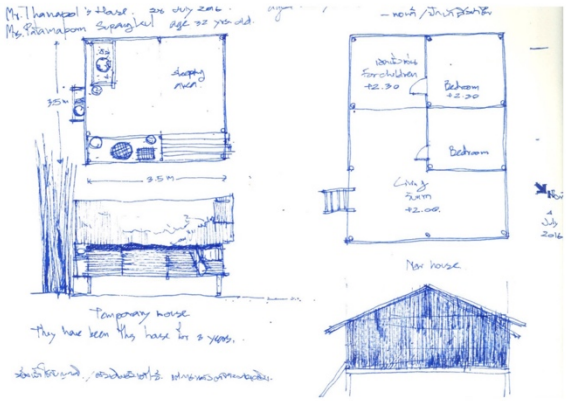



Bedroom
Bedroom
entry area
multipurpose area
sleeping area
multipurpose
Cooking area
New house
Old house
Mr. Somkeon Jaroensorok

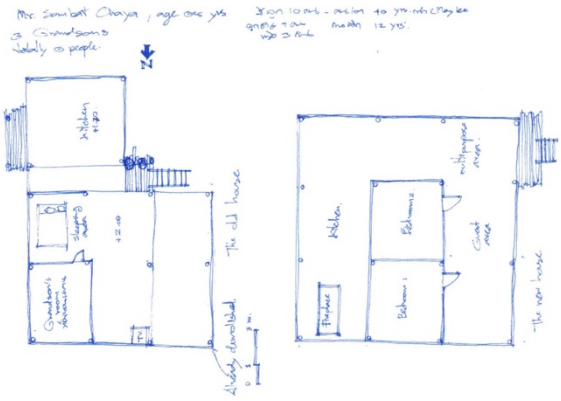

Kitchen
Daughter's bedroom
Paola's bedroom
Fireplace
Multipurpose area
Living space
water supply
tiles
galvanized iron sheets

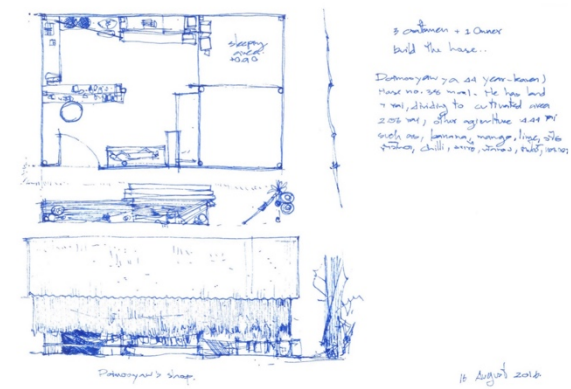

Mr. Supakid Jadho's house. - age 37 yrs old.
Mrs. Tupiyae Rakjingakeam - age 33 yrs
N
Storage area
Fireplace
old house.
Bedroom1
Bedroom2
multipurpose area
New house
4 July 2016

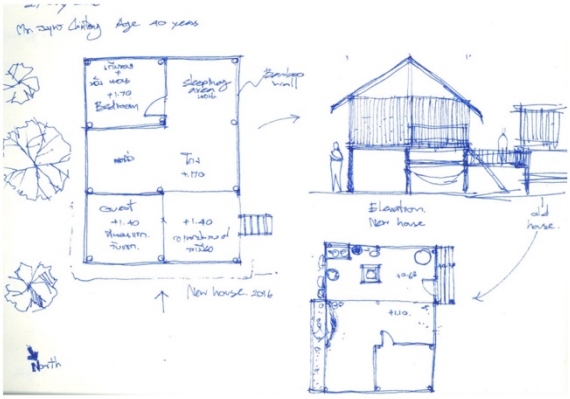

Bed room
multipurpose area
Note:
Roof: Galvanized iron sheet
Wall: Bamboo

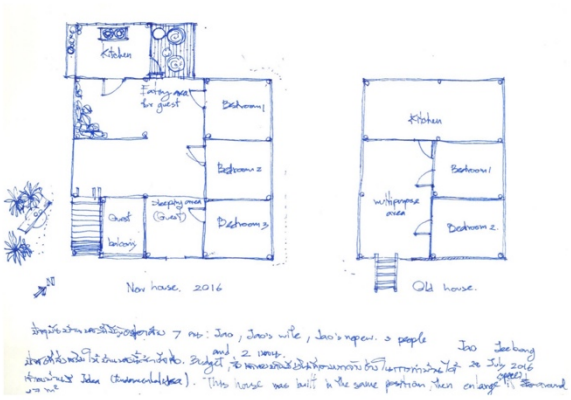

Mr. Thanapol's house
Ms. Patamaporn Supaglai
age 32 yrs old.
sleeping area
3.55m
3.5m
Temporary house
They have been this house for 5 years.
Bedroom
Bedroom
Living room
42.00
New house
4 July 2016

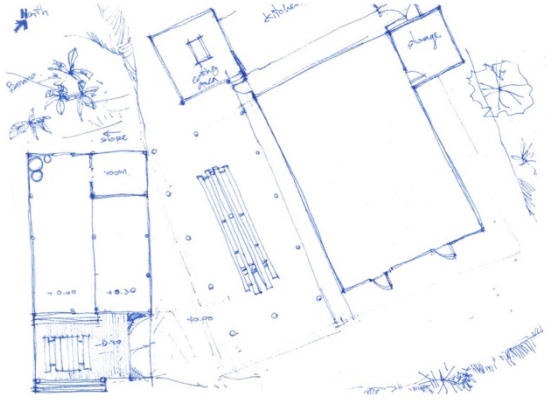


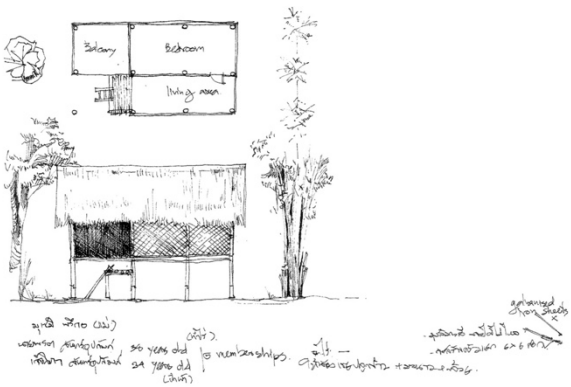


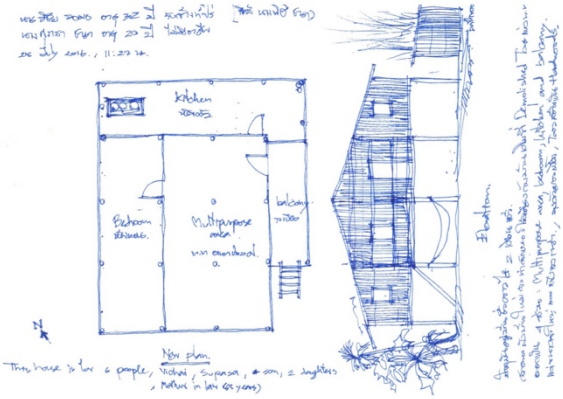


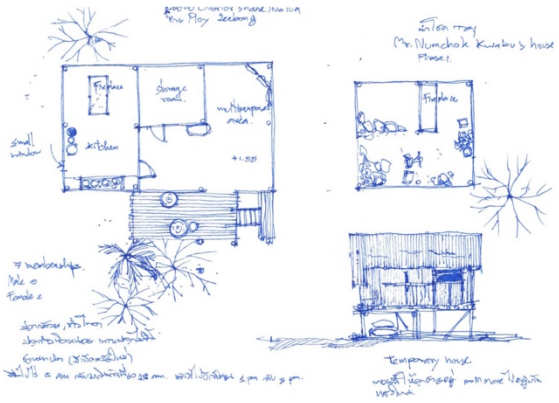


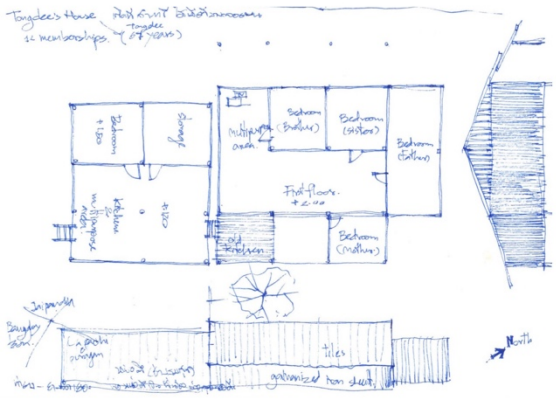


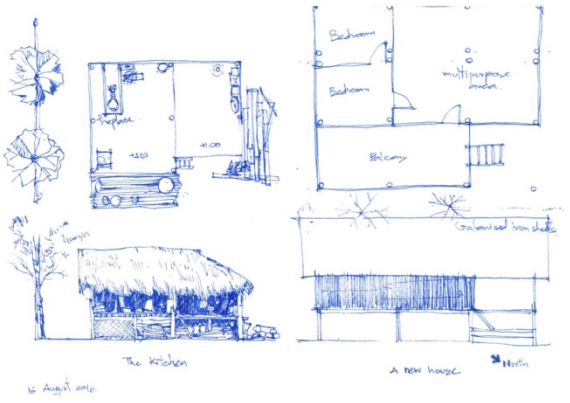


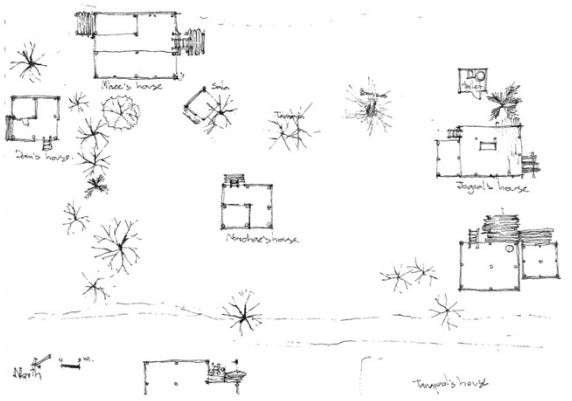


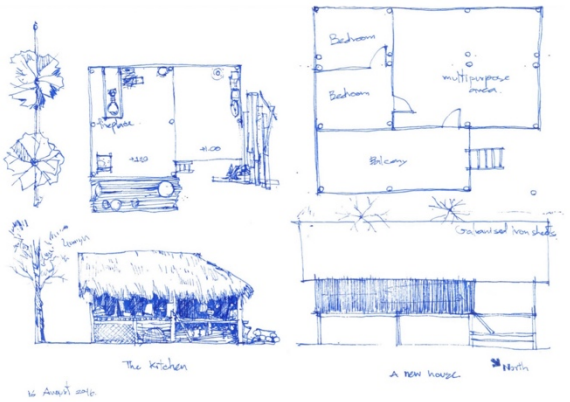


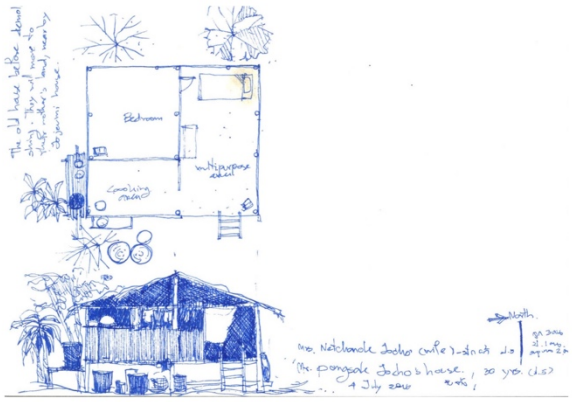

Mr. Numchok Kumbu's house
Temporary house
Bedroom
Bathroom
multipurpose room
Balcony
Galvanised iron sheet
The kitchen
A new house
North


Bedroom
Bathroom
multipurpose room
Bedroom (sisters)
Bedroom (father)
Bedroom (mother)
First floor
Jaipaulli
tiles
galvanized iron sheet
North

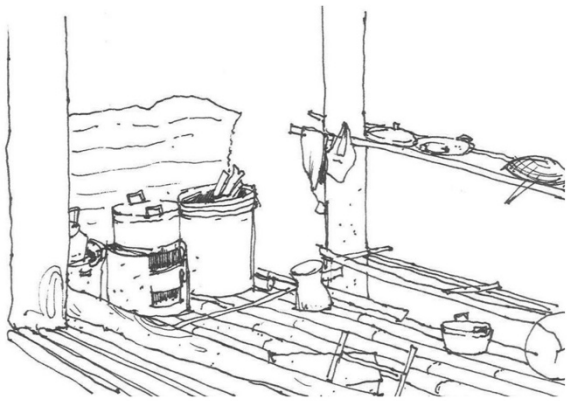
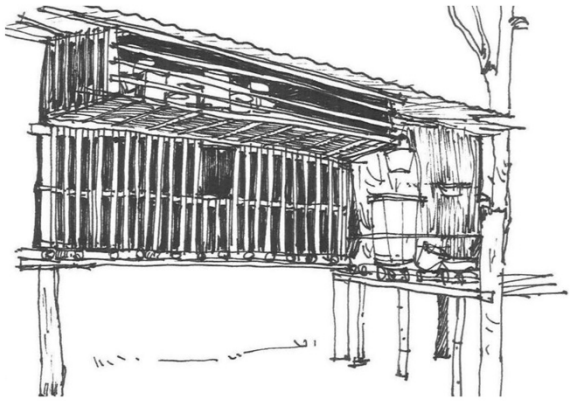
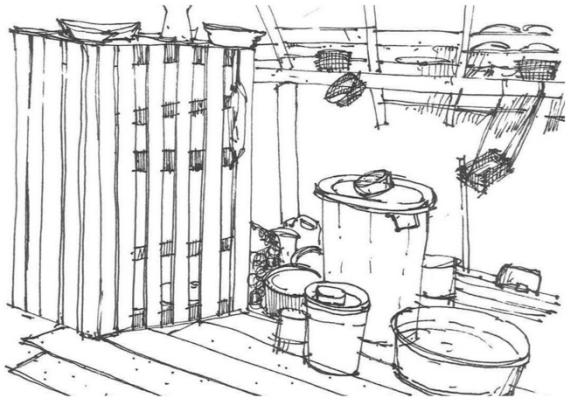
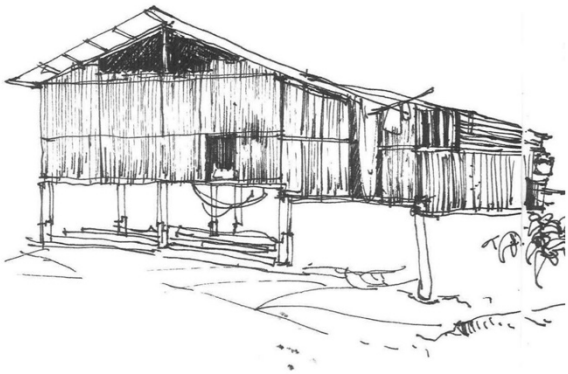
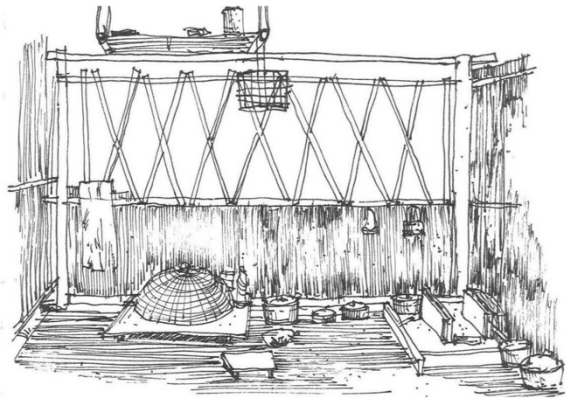
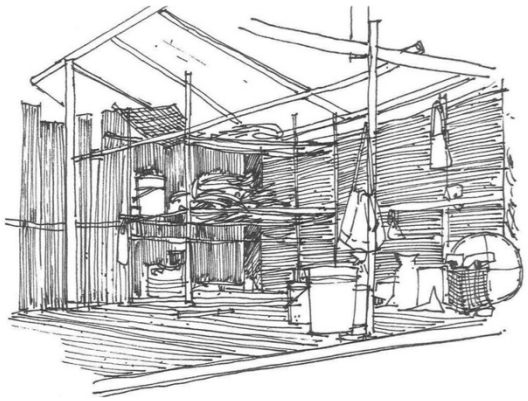

Bedroom
Bathroom
multipurpose room
Balcony
Galvanised iron sheet
The kitchen
A new house
North

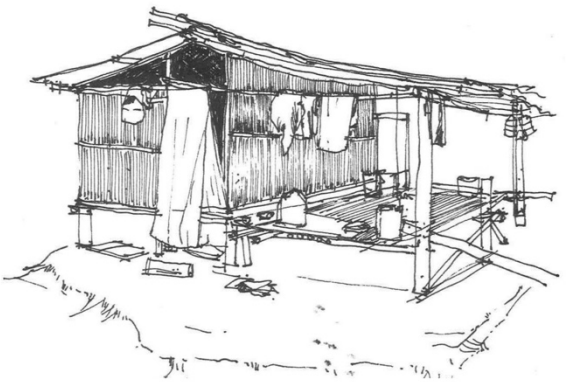

Rhee's house
Jagpalli's house
Nanchara's house
Tempoli's house
North

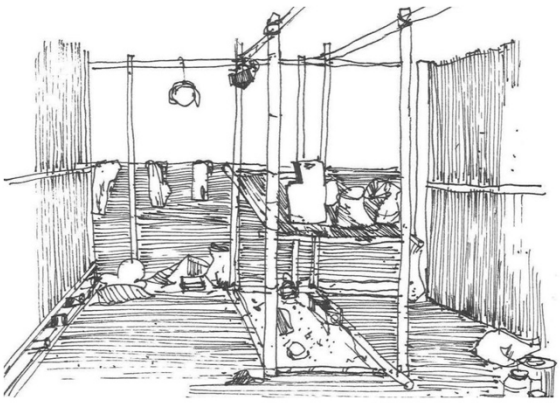

Bedroom
Bathroom
multipurpose room
Balcony
Galvanised iron sheet
The kitchen
A new house
North


Bedroom
multipurpose room
North

Drawing in 2017

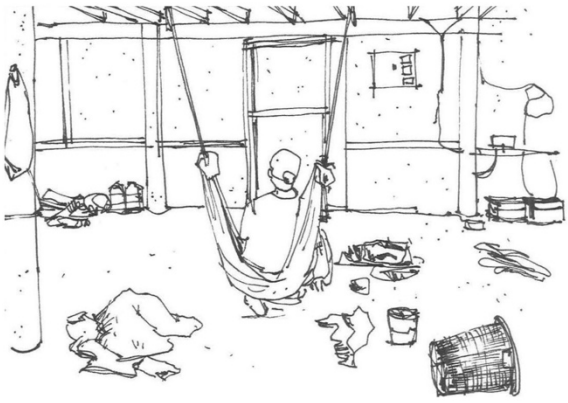







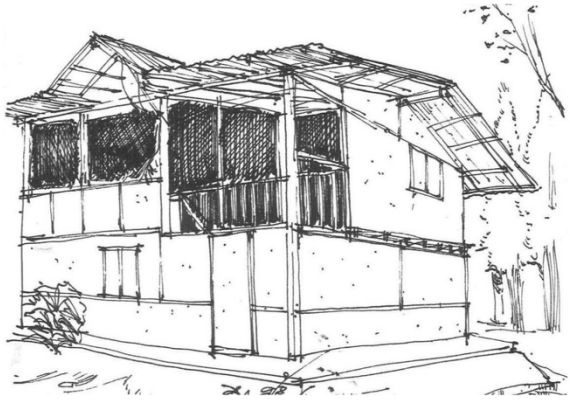


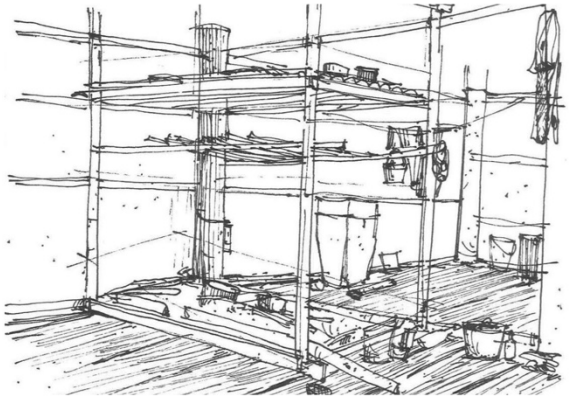


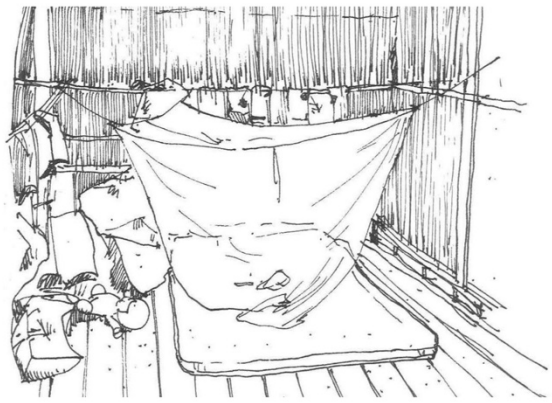


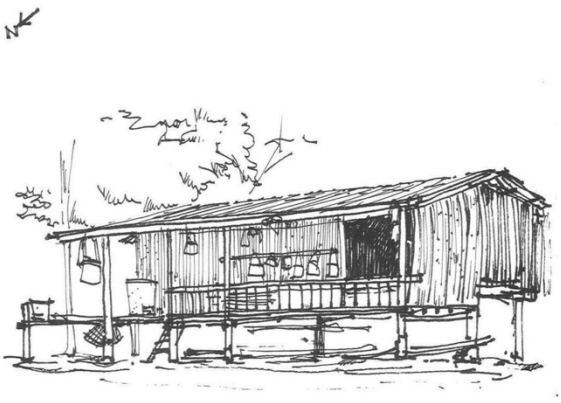


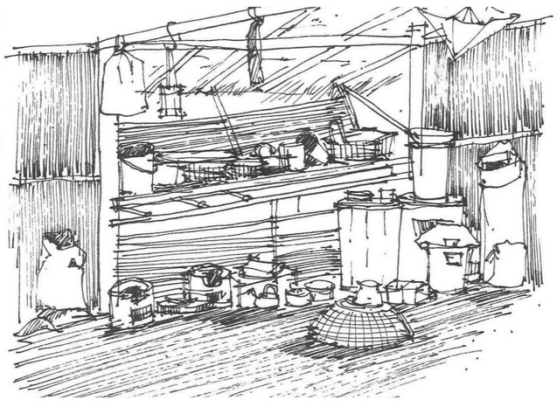




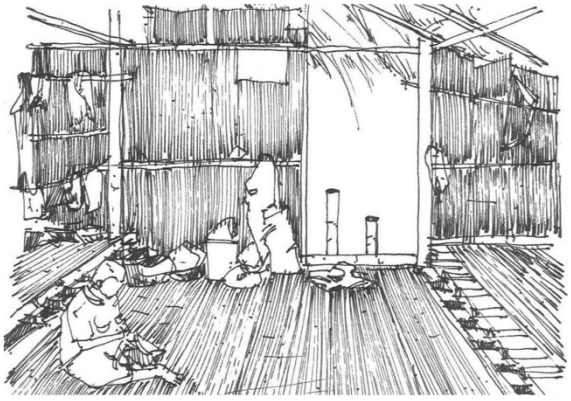


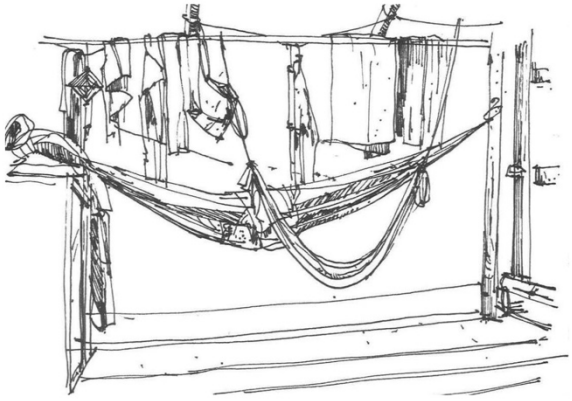


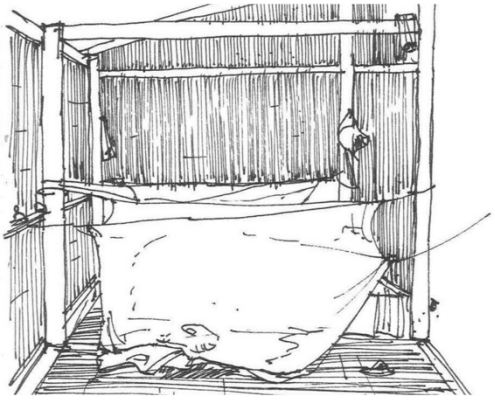


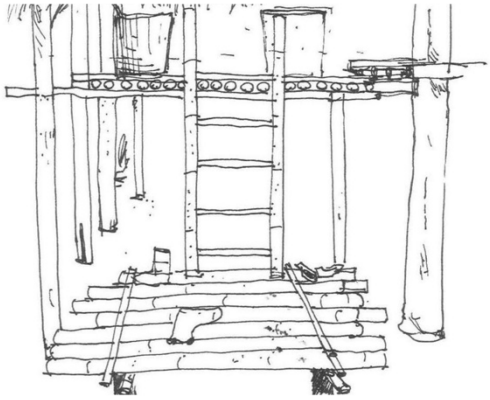


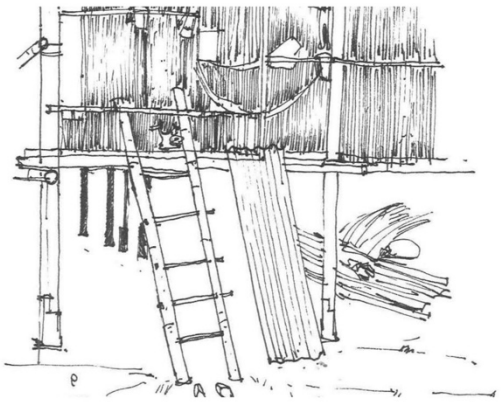


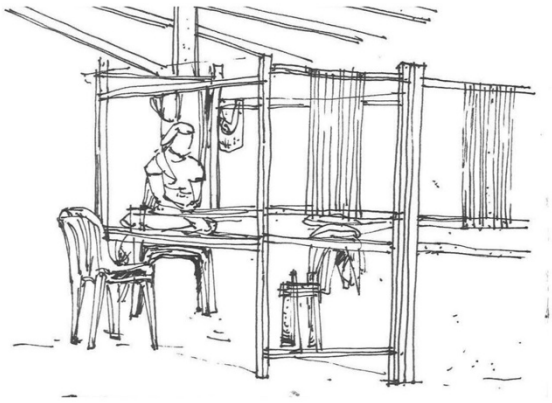


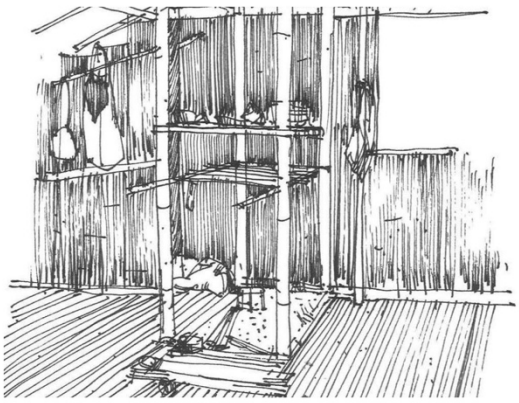


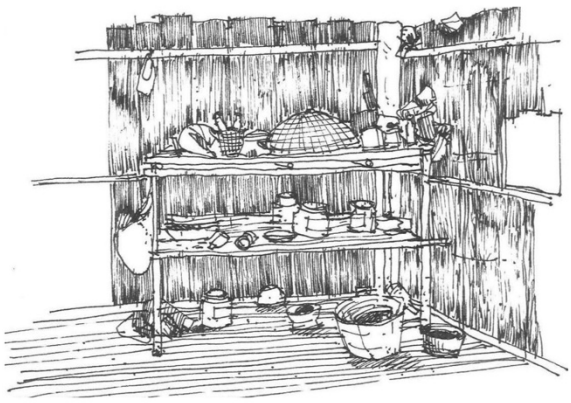


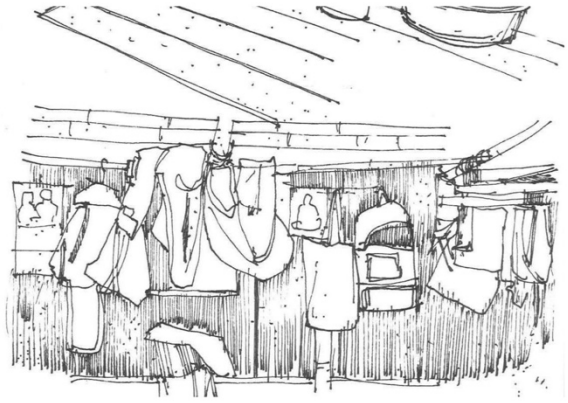


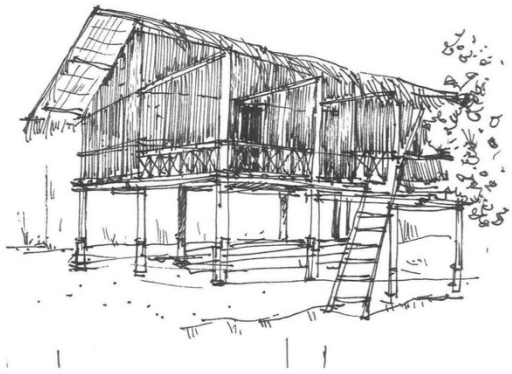


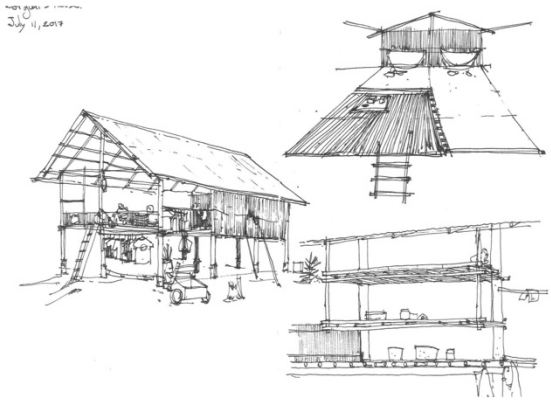






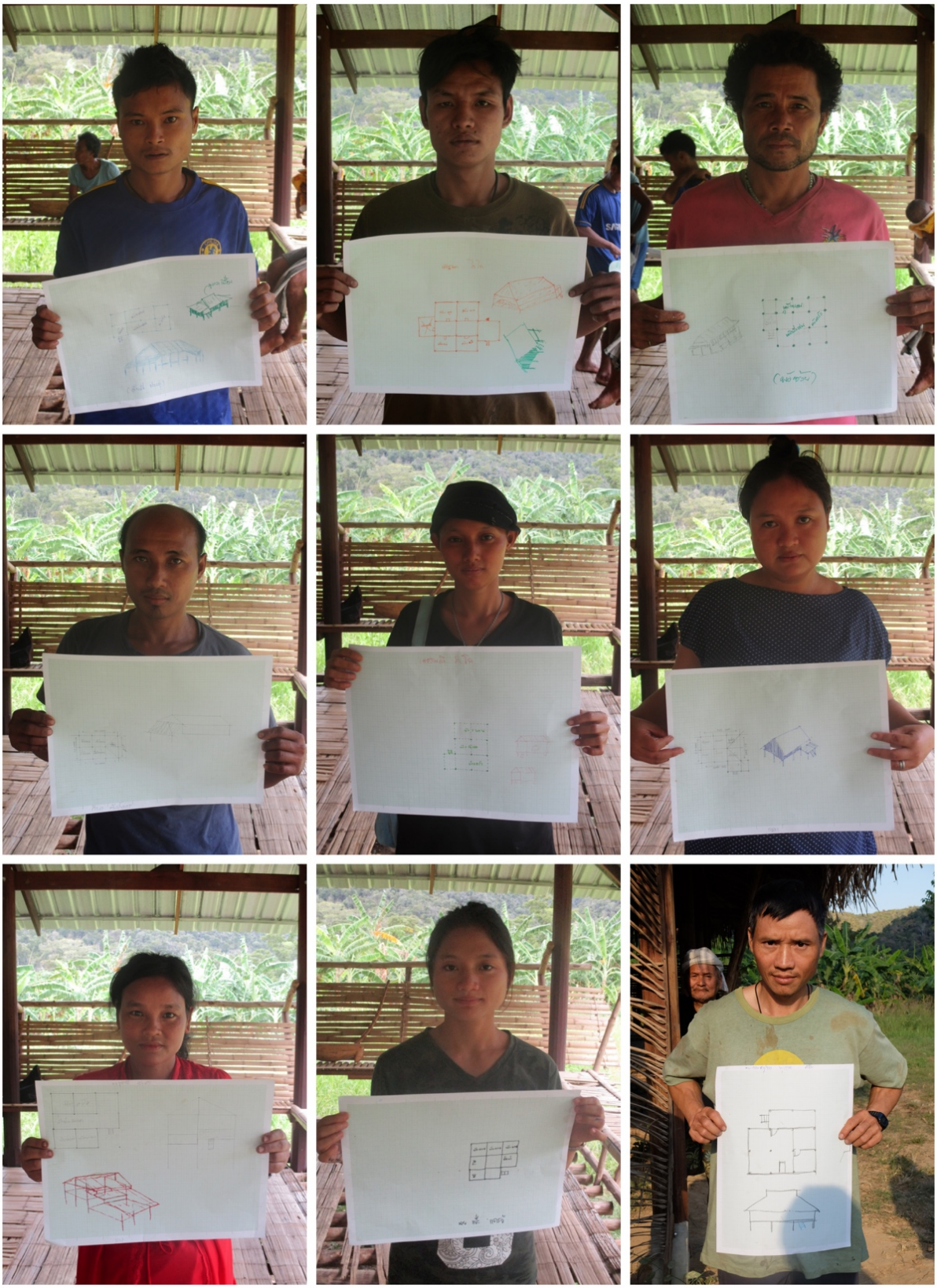





July 11, 2017

Appendix E: Drawings from the housing design workshops





Appendix F: Kinship group



Fig. A21 Ko-ee Mimi, 106 years old
Ko-ee was the oldest Karen in the village and the head of the Mimi kinship group. He passed away in October 2018.

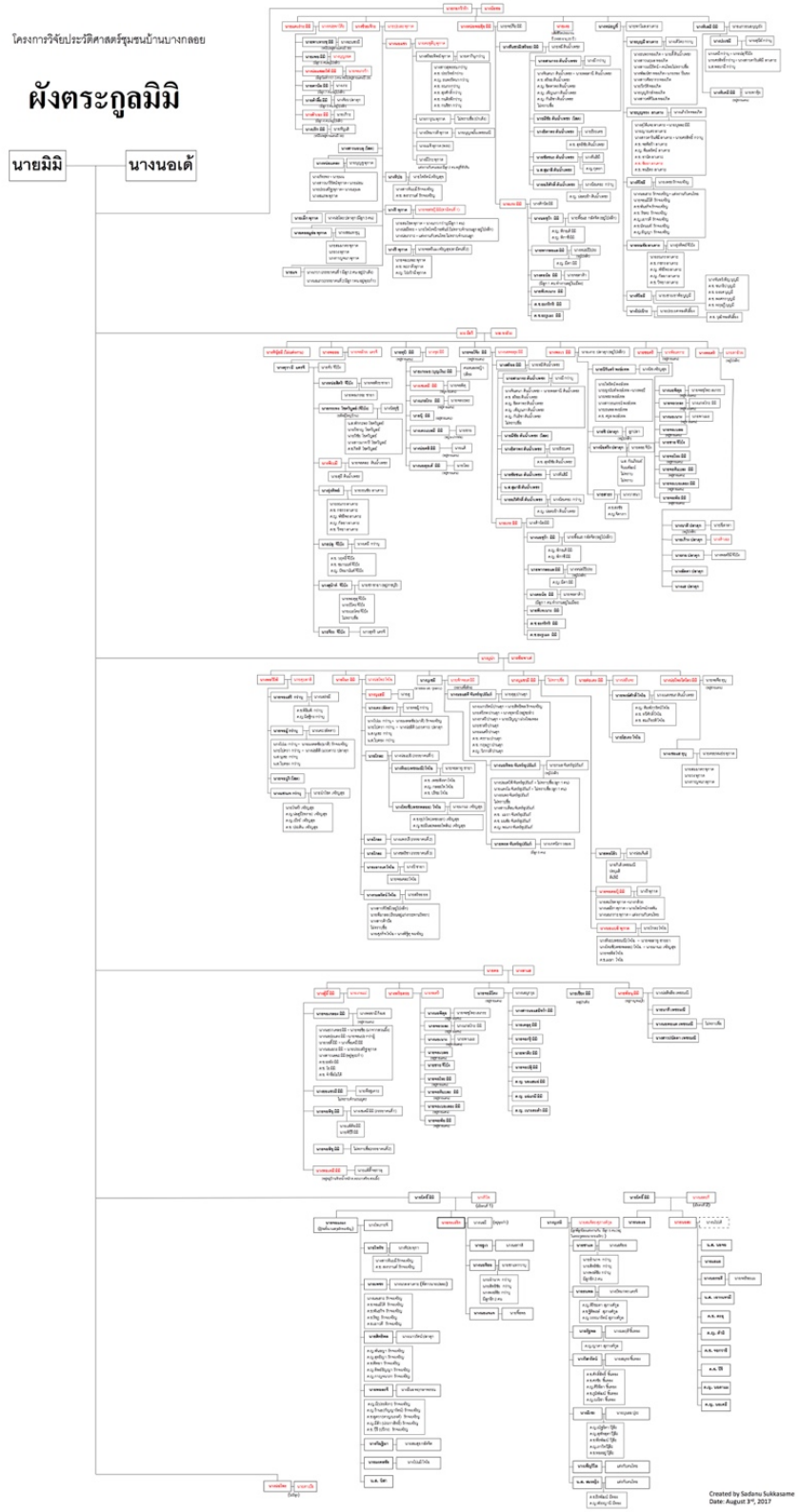


Fig. A22 Family tree or genealogical diagram of the Mimi kinship group

This kinship group is the biggest Karen family in the village. The diagram shows the relationships between each family. Many of them today live on the Myanmar border after evacuation in 1996. Kinship groups and relatives are a good topic that allows me to recognise people.



The form of the participatory working process
with the Karen is a collaborative action process.
It is an approach to encourage the Karen to develop their
life. This process also generates attention by the
Karen to think more and search for an opportunity
to develop the community for the future.

