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Research on the Construction Process of Traditional Tai Dam Houses in Shop Mone Village, Xiengkhor District, Houaphanh Province, Lao PDR

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Abstract

This study focuses on the traditional houses of the Tai Dam ethnic group in Shop Mone Village, Xiengkhor District, Houaphanh Province, Lao PDR. It aims to investigate the traditional house construction process of the Tai Dam ethnic group. Through field surveys and interviews with local house-building technicians, the study systematically documents the entire construction process, from site selection and material preparation to structural assembly and completion. It also analyzes traditional construction characteristics in terms of building materials, construction techniques, and community-based mutual assistance in house building. The data were analyzed descriptively based on information obtained from interviews with the target participants and relevant documentary sources.

The findings indicate that Tai Dam houses reflect adaptations to the local natural environment and sociocultural context. Their construction techniques and spatial arrangements reflect the distinctive cultural characteristics of the Tai Dam ethnic group. This study highlights the importance of preserving and transmitting traditional ethnic architectural knowledge and safeguarding the cultural heritage of the Tai Dam community.

Keywords: Houaphanh Province; Tai Dam; Traditional Houses; Construction Process; Residential Space Utilization

1. Introduction

Houses provide shelter and protection while also serving as expressions of cultural identity, social relationships, beliefs, and everyday practices. Vernacular architecture is shaped by the interaction between environmental conditions, available building materials, construction techniques, and the cultural values of the communities that produce it. Rapoport (1969) emphasized the importance of sociocultural factors in explaining the form and organization of houses, suggesting that domestic architecture should be understood in relation to the ways people live rather than solely in terms of physical structure. From this perspective, traditional houses represent both material structures and repositories of local knowledge, customary practices, and cultural heritage.

Research on vernacular architecture has also demonstrated that traditional houses can change in response to new social, environmental, and cultural contexts while retaining elements of their original identity. Angsuvech (2014), in a comparative study of Tai-Lao vernacular houses in Laos, Vietnam, and Thailand, found that housing forms and interior spatial arrangements adapt to different lifestyles, beliefs, traditions, and environmental conditions. Nevertheless, domestic beliefs may continue to be expressed through rituals associated with the use of interior spaces. These findings indicate that studying traditional houses requires attention to both the construction process and the cultural organization of residential space.

The Lao People's Democratic Republic is a multiethnic country characterized by considerable cultural and linguistic diversity. Ethnic communities maintain distinctive traditions, social practices, and relationships with their surrounding environments, although these characteristics also change through interaction and wider social development (United Nations Department of Economic and Social Affairs, 2024). Houaphanh Province, located in northeastern Laos along the Vietnamese border, is characterized by mountainous terrain and extensive forested areas. These geographical conditions provide an important context for examining traditional settlement patterns, locally available building materials, and vernacular construction practices (Ministry of Agriculture and Forestry, Lao PDR, 2023).

The Tai Dam, also known as Black Tai, are a Tai-speaking ethnic group with historical connections to areas of present-day Laos and northwestern Vietnam. Tai Dam communities have also established settlements in Thailand following historical migration and displacement. Research on Tai Dam communities in Thailand demonstrates that their residential architecture has developed through interactions between inherited cultural traditions and changing social and geographical environments (Bosup & Thungsakul, 2023; Punpairoj, 2022). These studies provide evidence that Tai Dam houses should not be regarded as a single, unchanging architectural type. Instead, their forms, structural elements, and spatial arrangements reflect both cultural continuity and adaptation to local circumstances.

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Traditional Tai Dam houses are particularly significant because their architectural features are associated with customary lifestyles, construction knowledge, and spiritual beliefs. Bosup and Thungsakul (2023) found that sacred space associated with ancestors, commonly referred to in their study as *Ga Lor Hong*, plays a central role in the internal organization of the Tai Dam houses they examined in Ban Na Pa Nad, Loei Province, Thailand. Their research also identified relationships between the position of the ancestral or spirit post, sleeping orientation, and the surrounding settlement landscape. Similarly, Punpairoj (2022) documented the development of Tai Dam house forms and architectural elements, showing that traditional features have been modified through cultural interaction and assimilation. Together, these studies demonstrate the importance of investigating both the physical construction of houses and the cultural meanings associated with their spaces.

Despite these contributions, further research is needed to document the construction procedures and residential space utilization of Tai Dam houses in their specific local contexts in Laos. Findings from Tai Dam communities in Thailand provide useful comparative perspectives, but they cannot automatically be generalized to communities in Houaphanh Province because local environmental conditions, settlement histories, available materials, and cultural practices may differ. A detailed investigation of Tai Dam houses in Shop Mone Village can therefore contribute to a more context-specific understanding of the relationship between traditional building techniques, environmental adaptation, cultural beliefs, and domestic space.

This study aims to investigate the house construction process of the Tai Dam people in Shop Mone Village, Xiengkhor District, Houaphanh Province, Lao PDR. Specifically, it documents the stages of house construction, including material preparation, site selection, traditional measurement, foundation preparation, structural assembly, flooring, roofing, and wall construction. It also examines how residential spaces are organized and used in relation to household activities and cultural practices. By documenting these aspects, the study seeks to contribute to the preservation of traditional Tai Dam architectural knowledge and to a broader understanding of vernacular housing as both a physical structure and a form of cultural heritage.

2. Research Methods

This study adopts a qualitative research approach, using field surveys, observation, and in-depth interviews to investigate villagers who are familiar with traditional house construction processes and related beliefs and customs. Three key informants are selected as research participants: one person knowledgeable about beliefs and customs associated with house construction, one traditional house-building craftsman, and one homeowner.

2.1 Target Sample Group

The target population in Shop Mone Village, Xiengkhor District, Houaphanh Province, consists of 83 families. However, this study focuses on the village head and household heads who have extensive knowledge of the traditional Tai Dam house construction process. The village head assisted in identifying and selecting three experienced house-building technicians to participate in interviews and provide information about the traditional Tai Dam house construction process.

2.2 Instruments

The main research instruments consisted of interview forms and direct observation of the villagers' daily lives. The interview questions were developed by the researchers and then submitted to three professors for evaluation to determine their relevance to the research objectives. The average Index of Item-Objective Congruence (IOC) scores for the questions ranged from 0.66 to 1.00.

2.3 Data collection

The researchers spent one month in the village in August 2025 to collect data. During this period, we lived in the village to observe the villagers' daily lives and document the process of traditional house construction. The researchers also held informal conversations and conducted interviews with the village head, elderly residents, villagers, and heads of households who had extensive knowledge of the house construction process. All data were collected over the course of one month. Some data were obtained through direct observation and firsthand experience, while other information was gathered from the villagers' accounts and descriptions.

2.4 Data Analysis

The data collected in this research were analyzed using descriptive analysis. The traditional house construction process was described step by step and illustrated with Figure to provide a clear and detailed explanation of each stage.

3. Result

3.1 The Process of Building a House

The traditional house construction process retains distinctive traditional characteristics. At present, only a small number of traditional houses remain in the area. These houses are primarily stilt houses with thatched roofs, consisting of two levels, with exterior walls mainly constructed of wooden planks. However, the remaining houses are gradually adopting modern designs, featuring roofs made of tiles or galvanized iron sheets and walls constructed of concrete blocks or bricks. Before construction begins, several stages are generally involved in the traditional house-building process.

3.2 Beliefs Associated with the Preparation of Building Materials

Before constructing a house, the homeowner must consult a carpenter (craftsman) and begin preparing timber one to two years in advance. This is because house construction is often carried out gradually, requiring sufficient time to accumulate the necessary timber. In selecting building materials, the Tai Dam traditionally place great importance on material quality and observe various beliefs and taboos. For example, house posts must be made from straight timber without knots. Trees struck by lightning, the uppermost sections of trees, and standing dead trees must be avoided. Timber should not be cut

during the winter, as it is traditionally believed to be more susceptible to insect infestation during this period. When selecting timber, people generally prefer wood that is hard, straight, and sufficiently long to minimize the need for joints. Commonly used timber types include those locally known as Mai Khao, Mai Kham, Mai Ba Ben (literally translated as "chicken-breast wood"), and Mai Kong. These types of wood are valued for their durability and resistance to insect damage. In areas where hardwood is scarce, bamboo may be used as an alternative building material, although it generally has a shorter service life. Among all structural components, house posts are considered the most important. They must be selected before the other building materials are prepared and should be made from straight, round logs. Wall materials generally consist of wooden planks or woven bamboo panels.

After the main building materials have been prepared, thatching grass must also be collected and thoroughly dried. Once completely dry, it should be stored properly to protect it from moisture and rain. The time required to prepare all the building materials depends primarily on the availability of family labor (interview with Mr. Fai Boun Seang, aged 55, August 2025, at 4:12 p.m.).

3.3 Beliefs and Traditions in House Site Selection

According to Mr. Phone Chai, aged 55, interviewed at 5:21 p.m. on August 16, 2025, "After the preparation of the building materials is completed, the next step is to select a suitable site for the house. When choosing a location, the terrain must be carefully considered to ensure the family's peace, well-being, and happiness. People generally prefer flat ground without depressions, where water does not accumulate and which does not serve as a water channel during the rainy season. They also avoid building houses on former burial grounds or sites where religious ceremonies have previously been performed. Within the traditional culture of the Tai Dam ethnic group, two ancestral methods for selecting a suitable house site have been passed down through generations." He also described the following traditional methods for selecting a suitable house site.

(1) The Egg Divination Method

After selecting a site for house construction, a divination ritual is performed to determine whether the location is auspicious and suitable for habitation. The procedure is as follows. First, a small hole is dug in the ground, and an egg is placed inside it. Next, a number of rice grains equal to the number of household members are placed on top of the egg. The egg and rice grains are then covered with a bowl. Incense and candles are lit, and prayers are offered to the local Earth Deity, regarded as the spiritual guardian of the land, to seek permission to build a house at that location.

The arrangement is then left undisturbed overnight, and the results are examined the following morning. If the rice grains remain on top of the egg without falling off, the site is considered auspicious and suitable for habitation. However, if the rice grains fall off or are eaten by insects or animals, the site is regarded as inauspicious and unsuitable for house construction. According to this traditional belief, proceeding with construction despite an unfavorable result may bring unrest or misfortune to the household.

(2) The Wooden Stick Divination Method

This method is essentially the same as the egg divination method, except that a wooden stick approximately 5–8 cm long is used instead of an egg. The procedure is as follows.

First, a small hole is dug in the ground, and the wooden stick is placed upright in the center of the hole. Next, a number of rice grains equal to the number of household members are placed around the stick. The arrangement is then covered with a bowl. Incense is lit, and prayers are offered to the Earth Deity to seek permission to build a house at the selected site. The arrangement is left undisturbed overnight.

The results are examined the following morning. If the rice grains remain clustered together without spreading apart, the site is considered auspicious and suitable for habitation. However, if the rice grains become scattered, the site is regarded as unsuitable for house construction. According to this traditional belief, proceeding with construction despite an unfavorable result may bring disturbances, disrupt family harmony, and cause losses to the household.

3.3 The House Construction Process

3.3.1 Ground Plan Measurement

According to an interview with Mr. Thong Souk, aged 55, conducted at 5:00 p.m. on August 27, 2026, the main tools used to measure and lay out the house plan include string, wooden stakes, a machete or knife, and a hammer.

The procedure begins by driving wooden stakes into the ground at the four corners of the selected building site to establish the outline of a quadrilateral. The dimensions of the house are determined according to the builder's practical needs. Traditionally, houses are generally classified into two categories: large and small.

A large house measures 10 wa in length (approximately 1,600 cm) and 4 wa in width (approximately 640 cm), while a small house measures 6 wa in length (approximately 960 cm) and 4 wa in width (approximately 640 cm) (**Figure** 1).

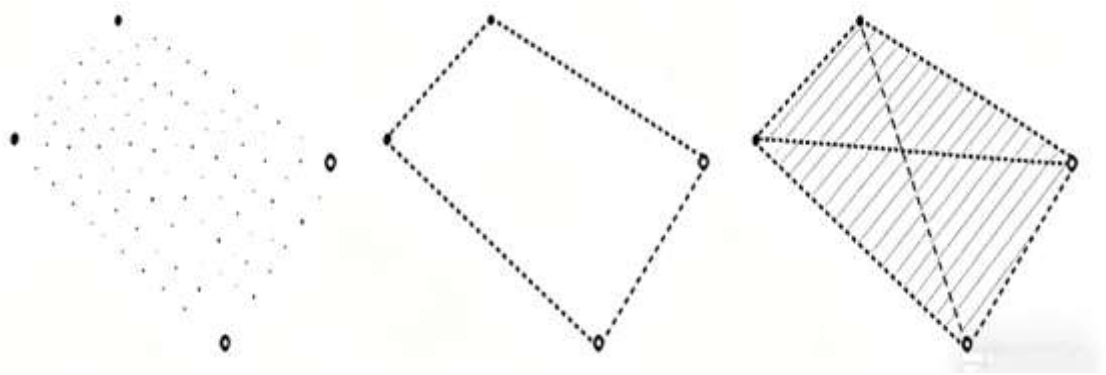


Figure 1: Site Leveling and House Plan Measurement Methods
Source: Drawn by the Researcher

In the past, standard measuring tools, such as measuring tapes, were not used to determine the dimensions of various building components. Instead, measurements were primarily based on parts of the human body. The commonly used units and their approximate metric equivalents are as follows: one thumb-width is approximately 2 cm; one grip (the width of a closed hand) is approximately 9 cm; one span (the distance covered by spreading the fingers) is approximately 18 cm; one thumb-grip (a measurement combining the thumb and palm) is approximately 13 cm; one handspan (the width of an outstretched hand) is approximately 20 cm; one cubit (the distance from the elbow to the fingertips) is approximately 40 cm; one arm (the length of the entire arm) is approximately 60 cm; one chest-width is approximately 80 cm; and one wa (the length of both arms extended horizontally) is approximately 160 cm.

These days, this traditional body-based measurement system is still used in some remote areas (**Figure** 2).

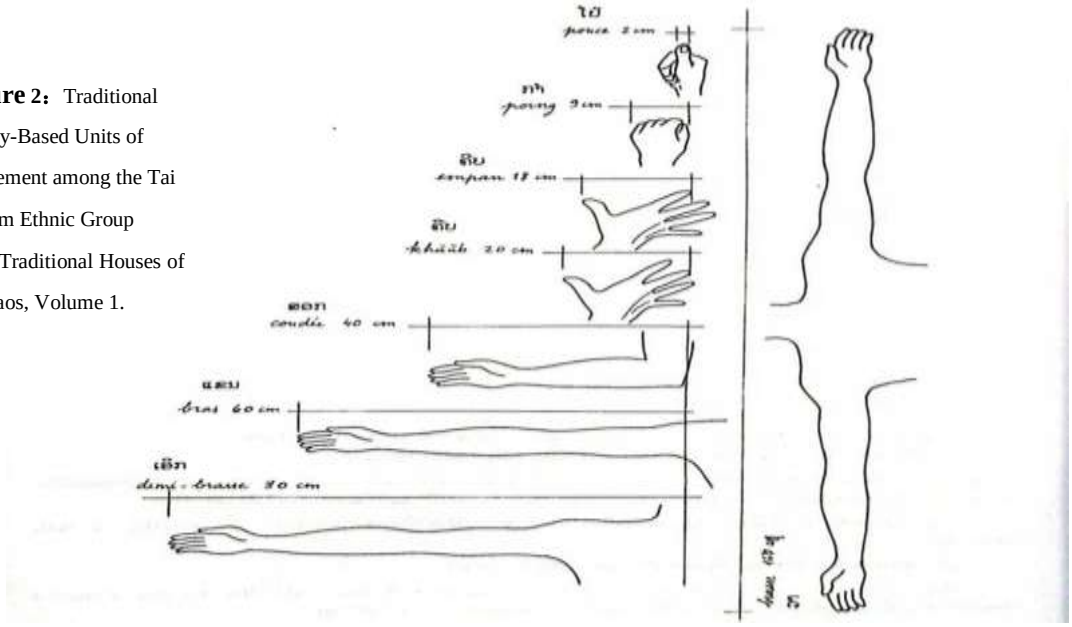


Figure 2: Traditional Body-Based Units of Measurement among the Tai Dam Ethnic Group
Source: Traditional Houses of Laos, Volume 1.

3.3.2 Excavation of Post Foundations and Leveling of Foundation Stones. After the house site has been selected, the initial stage of construction begins with leveling the ground to achieve a relatively even surface. The foundation stones for the house posts are then adjusted to ensure that all post bases are at the same height. Since Tai Dam houses are often built in mountainous or sloping areas, site leveling typically takes approximately two to three days to complete. The work is mainly carried out by family members and neighboring households, reflecting a strong tradition of mutual assistance and community cooperation.

The excavation of post foundations and the placement of foundation stones must follow the positions established during the preliminary measurements. During construction, strings are used to measure and check the alignment, ensuring that the post foundations are consistent in both height and position. This process provides a stable foundation for the subsequent installation of the house posts (**Figure** 3).

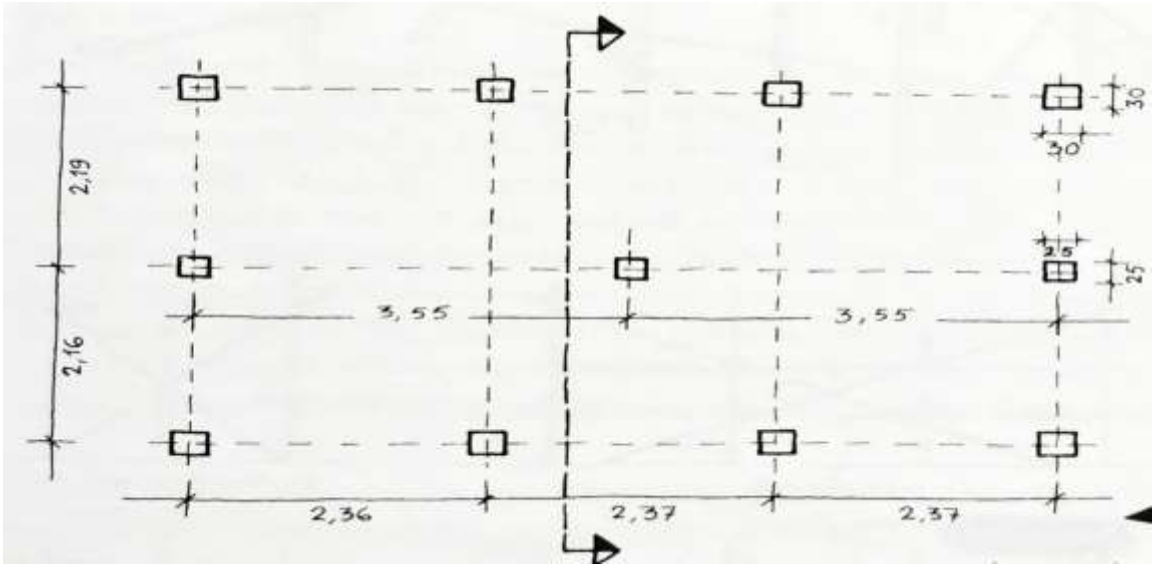


Figure 3：Plan of the Pillar Foundation Stone Layout

Source: Drawn by the Researchers

3.3.3 The Process of Erecting House Posts (Vertical Columns) Before erecting the house posts, the craftsmen arrange each post in sequence at its corresponding foundation stone. The first post and the soul post are raised approximately 50 cm in advance, usually by placing wooden blocks beneath their bases. During the erection process, the first post and the soul post are installed before the other posts. These two posts are regarded as the "mother posts," or the central pillars of the house, and hold great symbolic significance and sacred status. Therefore, they must be erected first and treated with special respect. In terms of spatial arrangement, these two posts are generally higher than the other posts. This difference in height carries symbolic meaning and is also reflected in the actual construction. According to traditional Tai Dam beliefs, people should always remain below the objects they revere and must not step across or over them. Raising these two posts therefore symbolizes their elevated status and expresses reverence for sacred beings. Furthermore, these two posts are believed to serve as dwelling places for the guardian spirits of the house. During the initial stage of construction, stepping over them is strictly prohibited. Raising the posts also has another symbolic meaning: it is believed to prevent impure forces or malevolent spirits from underground from entering the posts directly (**Figure** 4). Before the posts are formally erected, relevant rituals must be performed. Tree branches and objects symbolizing good fortune and prosperity are hung on the posts to pray for the family's prosperity, well-being, and peace. Only after these rituals have been completed may the remaining posts be erected in sequence (**Figure** 5).



Figure 4： Arrangement of All the Pillars Before the Pillar-Erecting Ceremony
Source: Drawn by the Researchers

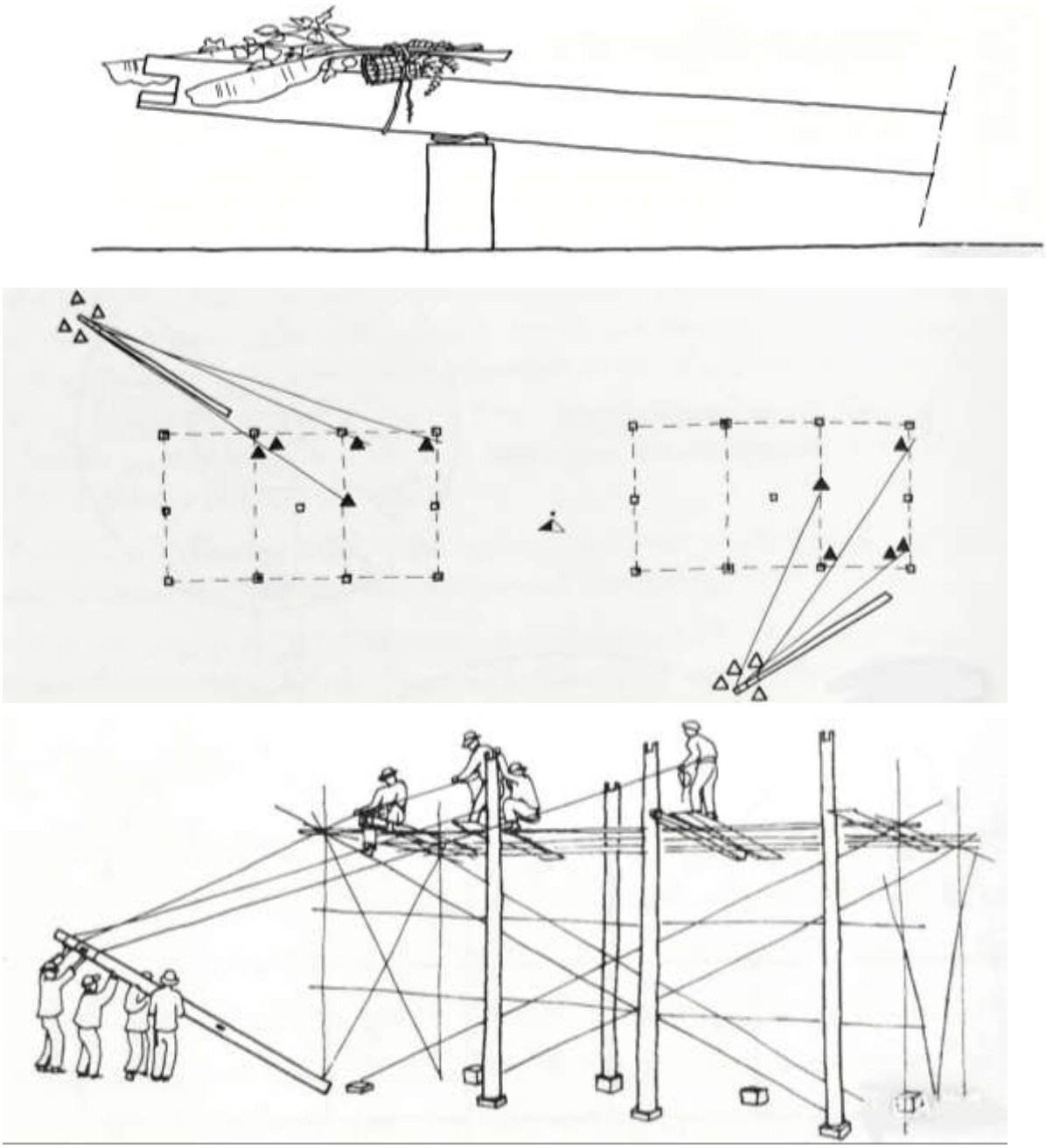


Figure 5：The Erection Process of the Soul Pillar

This step is one of the key stages in the construction process, as the crossbeams connect two vertical pillars and help keep them stable. The installation of the crossbeams typically requires six workers working together: four

workers operate at the upper level (standing on a temporary working platform), while two workers assist from the ground. The ground workers visually inspect or use simple tools to align the row of pillars on the southern side, then check the northern row to ensure that the pillars are arranged in a straight and orderly manner. This process also serves to verify that the pillars have not shifted from their original positions on the stone bases. Once everything has been confirmed to be correctly positioned, the workers lift the crossbeams and install them in place. The same method is then used to install the longitudinal members on the opposite side. The primary function of these beams is to connect all the pillars into a unified structure and keep them aligned along the same axis, thereby enhancing the overall stability and structural integrity of the building (**Figure** 7)

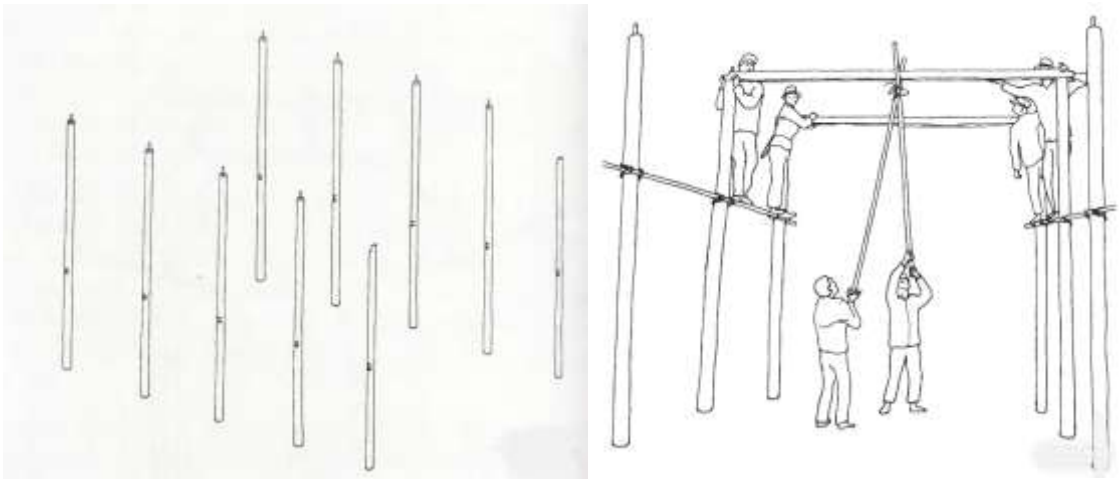


Figure 7： Crossbeam Installation Process
Source: Sophie (Traditional Houses of Laos, Volume 1)

3.3.4 Installation of the Main Longitudinal Beams (Ground Beams)

The craftsmen begin installing the main longitudinal beams by inserting them through the holes previously carved into the vertical pillars. These structural members have a cross-sectional dimension of approximately 11.5 cm × 5 cm and serve as major load-bearing components of the floor structure, supporting the secondary beams above, such as joists or crosspieces.

These main beams play an important role in the structural system. They not only increase the overall rigidity of the pillar framework but also contribute significantly to the stability of the building. For this reason, they are referred to as the "mother beams."

The main beams are generally positioned along the two longitudinal sides of the building, corresponding to the outer rows of pillars on the east and west sides, and are joined together at the middle. Because installation requires each beam to pass through an entire row of pillars, the process is relatively challenging. All pillars in the same row must be aligned in a straight line and maintained at a consistent height to allow the beams to be inserted smoothly.

This installation method effectively enhances the structural integrity and connection strength of the building, ensuring that the pillars work together as a stable load-bearing system (**Figure** 8).



Figure 8： Installation of the Longitudinal Main Beams
Source: Illustration by the author.

3.3.5 Installation of Wooden Beams, Diagonal Braces, and Purlins (Chicken-Breast-Shaped Wooden Members)

The purpose of installing the wooden beams is to connect the individual pillars, making the building structure stronger and more stable. The diagonal braces are installed in pairs and gradually lifted into position, where they are connected to the crossbeams and wooden beams to further enhance the overall structural stability and rigidity.

After these components have been installed, the purlins, also known as "chicken-breast-shaped wooden members," are placed on top of the diagonal braces and securely fastened using iron nails, rattan ties, or wooden wedges (**Figure** 9).

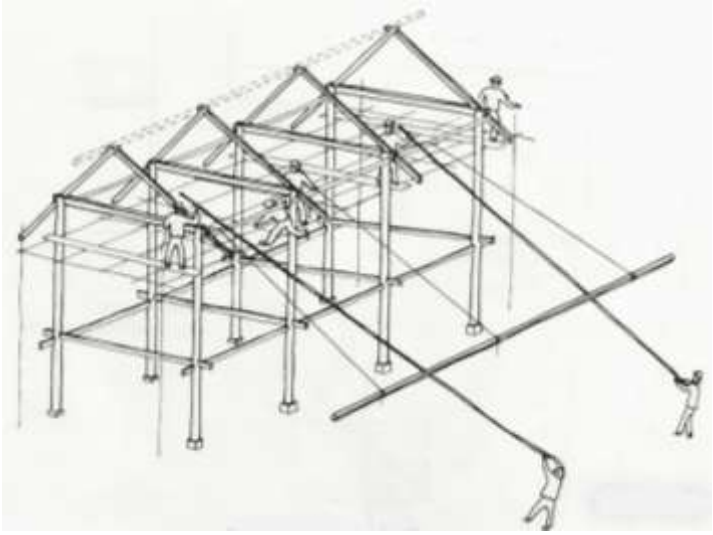


Figure 9: Installation of Wooden Beams, Diagonal Braces, and Purlins (Chicken-Breast Beams)
Source: Sophie, *Traditional Houses in Laos*, Volume1

3.3.6 Installation of Ground-Support Posts, Small Crossbeams (Wooden Girders), and Rafters

The ground-support posts consist of a row of load-bearing posts positioned in the middle of the house. Their primary function is to directly support the small crossbeams and indirectly support the main floor beams (large beams) through the structural load-transfer system, transferring the load to the central main beam (mother beam). These posts support the floor structure, enabling it to bear weight more effectively and enhancing the overall stability of the house.

The small crossbeams are laid horizontally across the main beams. They connect the main beams to the central support posts and provide essential support for the floorboards, making the floor structure stronger and more durable.

The rafters are secured to the diagonal braces using iron nails, wooden pegs, or rattan strips. Their main function is to strengthen the stability of the roof structure and provide support for the thatch or roof tiles. After these structural components have been installed, the roof covering is added by laying thatch or roof tiles to provide shade and protection from rain (**Figure** 10).

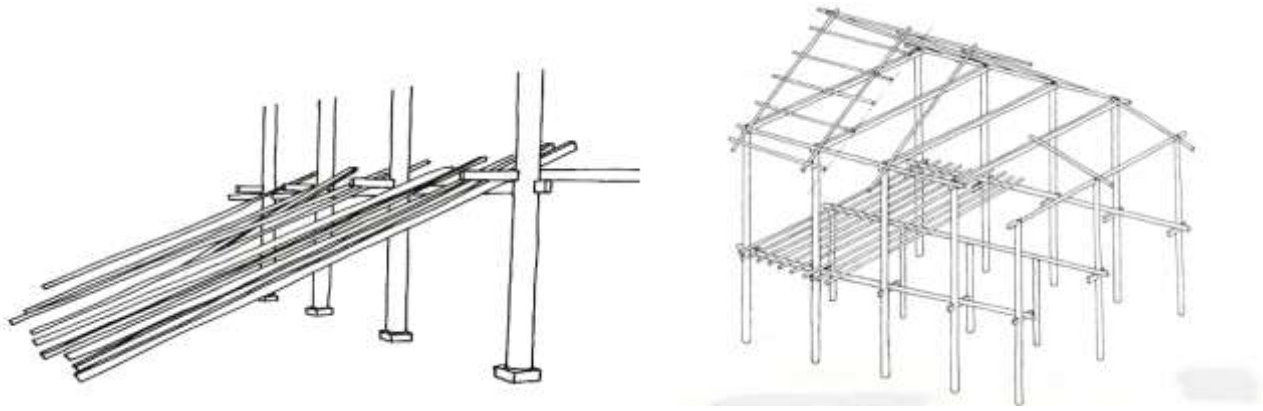


Figure 10: Installation of Rafters and Small Crossbeams
Source: Prepared by the researcher.

3.3.7 Laying the House Floor

Above the main beams, floor-supporting members are laid perpendicular to them. These supporting members are usually made of bamboo, which is split into strips approximately 3–4 cm wide. The smooth outer surface of the bamboo is placed facing upward. The flooring material is then laid perpendicular to the floor-supporting members.

The floor is primarily made of bamboo slats, produced by splitting bamboo and flattening it into boards. These bamboo boards are laid across the width of the house, with their edges secured by edge-clamping battens. These battens are positioned on the outer sides of the columns and also support the lower part of the walls.

The bamboo components are tied securely to the columns and intermediate beams to ensure structural stability. Consequently, the edges of the bamboo flooring are clamped firmly between the edge-clamping battens and the outermost floor-supporting members, ensuring that the floor remains secure and structurally integrated (**Figure** 11).



Figure 11： House Floor Structure

Source: Photograph taken on August 9, 2025.

3.3.8 House Enclosure (Walls)

House walls are typically constructed from woven bamboo panels or wooden planks. The lower edge of the wall rests on an edge-clamping batten, which secures the bottom of the wall and serves as a base for installing the woven bamboo panels and wall frame.

In some cases, a bamboo pole is also installed along the upper edge of the wall to secure it in place. This component is similar in form to the lower edge-clamping batten and is referred to as the upper clamping batten. It secures the top of the wall, making the overall structure more stable (**Figure** 12).



Figure 12： Tai Dam (Black Tai) House

Source: Photograph taken on August 9, 2025

4. Discussion

4.1. Traditional House Construction as Vernacular Architectural Knowledge

The findings indicate that the traditional house construction process of the Tai Dam people in Shop Mone Village follows a systematic sequence, beginning with material preparation and site selection and continuing through ground preparation, column erection, structural framework assembly, floor installation, roof construction, and wall installation. This sequence demonstrates accumulated architectural knowledge developed through practical experience and transmitted across generations. Rather than being an arbitrary collection of building activities, each stage contributes to the structural stability, usability, and cultural meaning of the house.

This finding is consistent with Vongvilay et al. (2015), who explain that Lao vernacular dwellings developed through interactions among cultural beliefs, lifestyles, local materials, geographical conditions, and environmental requirements. Similarly, Anolac (2013) emphasizes the relationship between the physical characteristics of traditional Lao dwellings and the geographical and cultural settings of their inhabitants. Research on vernacular housing in Laos also shows that differences in settlement environments are reflected in house forms and spatial arrangements (Oikawa et al., 2010).

The construction sequence documented in Shop Mone Village therefore provides evidence of a locally developed building system in which the preparation and installation of individual components are coordinated to produce a complete dwelling. However, because the present study focuses on one village, further comparative research is needed to determine which construction techniques are shared across Tai Dam communities and which are specific to the local context.

4.2. Building Materials and Adaptation to the Natural Environment

Timber plays a central role in the traditional Tai Dam house, particularly in the construction of columns, beams, supporting members, roof frames, and other structural components. Bamboo, wooden planks, woven panels, thatch, and palm leaves are also used for different parts of the building. The use of these materials reflects practical knowledge of local resources and their suitability for specific construction functions.

Kueasombut's research on Lao Song vernacular houses examines the relationship between construction techniques, material selection, local knowledge, and changes in the physical, social, and economic environment. This provides a useful comparison for understanding how traditional material practices are connected to community life and environmental conditions. Vongvilay et al. (2015) likewise identify the interaction between building materials, geography, climate, and cultural practices as an important factor shaping Lao vernacular architecture. More broadly, research on vernacular housing in Aceh highlights how material selection, construction, orientation, and spatial configuration can work together as climate-responsive strategies (Fakriah & Edytia, 2021).

The increasing use of roof tiles and corrugated galvanized iron sheets in contemporary Tai Dam houses also indicates a change in material preferences. Such changes may reflect the availability of modern products, construction costs, maintenance requirements, and changing household expectations. Punpairoj (2022) documents changes in Tai Dam house types in Thailand, including transitions in construction materials and roof forms, while identifying certain traditional structural elements that have remained recognizable. These findings suggest that architectural change does not necessarily mean the complete disappearance of traditional knowledge. Nevertheless, the specific reasons for material changes in Shop Mone Village require further investigation through interviews with homeowners and builders.

4.3. Site Selection, Ground Preparation, and Structural Organization

The findings show that site selection is an important stage in Tai Dam house construction. Relatively level or elevated ground is preferred, whereas low-lying locations prone to water accumulation and areas exposed to rainy-season runoff are generally avoided. These practices demonstrate the importance of considering the physical environment before construction begins.

Anolac (2013) and Vongvilay et al. (2015) similarly discuss how geographical conditions and environmental characteristics influence the form and arrangement of traditional Lao dwellings. Oikawa et al. (2010) also compare the dwelling cultures of different ethnic groups in Laos, demonstrating the value of examining house morphology in relation to settlement and geographical context. Together, these studies provide a basis for interpreting site selection in Shop Mone Village as part of a broader tradition of environmental adaptation rather than simply a preliminary construction task.

The erection of the main post and soul post before the installation of the remaining structural members is another notable feature. These posts are important to the house's structural framework and are also associated with spiritual meaning in Tai Dam tradition. Once the principal columns are erected, beams and connecting members are installed to link the columns and strengthen the structure. This sequence illustrates how structural requirements and culturally significant practices can coexist within the same construction process.

Research on Tai Dam houses in Ban Na Pa Nad, Thailand, identifies the ancestor-related sacred area and spirit post as important elements of domestic spatial organization (Bosup & Thungsakul, 2023). Chiranthanut (2020) likewise examines the role of sacred spaces in organizing domestic life among Tai-speaking communities. Although these studies concern communities outside Shop Mone Village, they offer relevant comparative perspectives on the relationship between house structure, spiritual beliefs, and domestic organization.

4.4. Spiritual Beliefs and the Cultural Significance of the House

The significance of the main post and soul post suggests that Tai Dam houses should be understood as more than physical shelters. Construction involves practical decisions about materials and structural stability, but it may also involve inherited beliefs concerning the household, ancestors, and the appropriate organization of domestic life.

Bosup and Thungsakul (2023) found that the Ga Lor Hong, understood as a sacred or ancestor-related area, occupies a central position in the Tai Dam houses they

examined in Ban Na Pa Nad. Their research also describes the relationship between the spirit post, sleeping orientation, and the surrounding landscape. Similarly, Chiranthanut (2020) argues that sacred spaces in vernacular houses can express social relationships and help transmit cultural knowledge between generations. These studies support the interpretation that spiritually significant house elements can connect the built environment with collective memory and household identity.

Punpairoj (2018, 2022) further demonstrates that Tai Dam architectural forms and construction elements have changed over time while continuing to express cultural identity. Angsuvech (2014), in a comparative study of Tai-Lao vernacular houses, also finds that interior spaces adapt to changing contexts, lifestyles, beliefs, and traditions. These findings suggest that cultural continuity does not require every architectural element to remain unchanged. Instead, traditional meanings may persist through selected structural features, rituals, and patterns of spatial use.

For Shop Mone Village, however, the precise meanings attached to each construction ritual and spatial element should be established through local interviews and observation. Findings from other Tai Dam communities provide comparisons, but they cannot replace evidence of the beliefs and practices of local residents.

4.5. Changes in Traditional Architecture and the Continuity of Cultural Identity

The adoption of modern roofing materials alongside traditional timber and bamboo construction indicates that Tai Dam houses are changing in response to contemporary circumstances. This process should not necessarily be interpreted as a simple transition from traditional to modern architecture. Instead, it may represent a selective combination of inherited construction knowledge and newer materials or techniques.

Punpairoj (2022) documents several types of Tai Dam houses in U-Thong District, Thailand, illustrating how traditional house forms have developed under changing cultural and social conditions. Punpairoj (2018) also discusses the transformation and reproduction of tortoise-shaped Tai Dam houses, highlighting the relationship between architectural form and ethnic identity. Angsuvech (2014) shows that Tai-Lao domestic spaces can adapt to new environments while continuing to express inherited beliefs through spatial practices.

Related studies of vernacular dwellings in Laos similarly emphasize the influence of geographical, cultural, and environmental conditions on architectural development (Anolac, 2013; Vongvilay et al., 2015). Research on Lao Phuan vernacular houses in Xieng Khouang Province also examines the relationship between local materials, architectural features, and the surrounding environment (Daravong et al., 2023; Weerataweemat et al., 2013). These comparisons suggest that documenting traditional houses is important not only for recording building techniques but also for understanding how communities negotiate continuity and change.

For conservation in Shop Mone Village, it is therefore important to document construction knowledge, terminology, material choices, and culturally meaningful features before they are lost. Conservation approaches should recognize the practical needs of residents while supporting the continued transmission of local building knowledge.

4.6. Research Contribution and Limitations

This study contributes to the documentation of Tai Dam vernacular architecture by recording the construction process in Shop Mone Village, Xiengkhor District, Houaphanh Province, Lao PDR. While several published studies have examined Tai Dam houses and domestic spaces in Thailand, and others have investigated vernacular housing across Laos, the present research provides a village-specific account of construction stages, structural components, materials, and associated beliefs.

The study also has limitations. Its findings are based on a particular community and a limited number of key informants, so they should not be generalized to all Tai Dam settlements. In addition, the construction process is documented in greater detail than the everyday use of individual rooms and domestic spaces. Future research should include measured architectural drawings, comparisons between older and newer houses, interviews with additional households and craftspeople, and systematic observations of daily activities. These approaches would help clarify how construction techniques, spatial organization, household practices, and cultural beliefs interact over time.

Overall, the findings demonstrate that traditional Tai Dam houses embody both practical building knowledge and cultural values. Documenting these houses can contribute to architectural research and provide a foundation for community-based heritage conservation.

5. Conclusion

The traditional house construction process of the Tai Dam people consists of several systematic stages, including material preparation, site selection, ground preparation, column erection, structural framework assembly, floor installation, roof construction, and wall installation. Timber is the primary construction material, used for columns, beams, supporting members, roof frames, and wall components. Bamboo, thatch, and palm leaves are also traditionally used, particularly for flooring, wall panels, and roofing. In contemporary construction, roof tiles and corrugated galvanized iron sheets are increasingly replacing traditional roofing materials.

Site selection reflects the Tai Dam people's practical knowledge of the natural environment. Relatively level and elevated locations are preferred, while low-lying areas susceptible to waterlogging and sites exposed to rainwater runoff are generally avoided. Traditional measurement methods are also applied to determine house dimensions and organize construction. During structural assembly, the main post and soul post are erected first because of their structural importance and spiritual significance. Horizontal beams, connecting beams, longitudinal beams, and other supporting members are then

installed to create a stable framework. The floor, roof structure, roofing materials, and walls are subsequently completed in sequence.

Overall, the construction process demonstrates the Tai Dam people's well-developed vernacular architectural knowledge, practical building skills, and respect for traditional beliefs. The integration of locally available materials, environmental considerations, construction techniques, and spiritual practices reveals that a traditional house is more than a physical shelter; it also represents cultural identity and inherited knowledge. Although modern materials are increasingly being adopted, traditional construction principles remain important for understanding the architectural heritage of the Tai Dam community.

This study contributes to the documentation of traditional Tai Dam architecture in Shop Mone Village, Xiengkhor District, Houaphanh Province, Lao PDR. Recording these construction methods can help preserve local building knowledge and support future research on vernacular architecture, cultural continuity, and the conservation of traditional housing.

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