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Dear Author:
After evaluation of you draft paper "Reconstruction Process of Traditional Community House of Katu Ethnic Minority - Case Study of Aka Hamlet in Nam Dong District, Thua Thien Hue Province, Vietnam", Reviser's Recommendation for the approval is <b>B-Approved with minor revisions.</b>
Here is the advice from the expert:
The paper presents a study about the construction process of a traditional community house of Katu ethnic minority in Nam Dong District (Vietnam), from a joint project with the community. The presentation has a remarkable quality in the content and a great richness in the descriptions. Particularly, the paper shows great care in the characterization of local communities, in the analysis of social relationships associated with the construction and study of the body's role in establishing measures and proportions.
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hank you for your contribution.

Best Regards.

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To: 2019ciav-isceah@whitr-ap.org

Cc: Hirohide Kobayashi, Miki Yoshizumi, phuong truonghoang, anh tuan le, Sáng Trần Đức

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# Reconstruction Process of Traditional Community House of Katu Ethnic Minority - Case Study of Aka Hamlet in Nam Dong District, Thua Thien Hue Province, Vietnam

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ABSTRACT: Based on a project collaborated among Kyoto University (Japan), Hue University of Sciences (Vietnam) and Vietnam Institute of Culture and Arts - Branch in Hue (Vietnam), one traditional community house of Katu ethnic minority was constructed in Aka hamlet, Thuong Quang commune of Nam Dong district, Thua Thien Hue province. This study focuses on traditional process of the construction of the house. The field research was conducted during the construction process for obtaining the information about structure, construction technique, material collection and processing, and decoration. In addition, the patriarchs and local people were interviewed to understand their design method. The successful reconstruction of this house proved that

the community linkage and traditional construction techniques are still kept in Ka tu villages in Nam Dong. This contributes to the preservation of the traditional architecture of the Katu people, which is being lost in Nam Dong.

**KEY WORDS**: Traditional community house, Design methodology, Katu ethnic minority

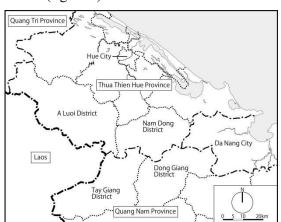
## 1 Background

#### 1.1 Katu ethnic minorities

Katu ethnic minorities inhabit in the mountainous areas of Thua Thien Hue and Quang Nam provinces, and part of Da Nang city in Vietnam, whose population was approximately 86,617 in 2017 [1:9]. Originally, the Katu village had Guol, traditional community house, being located in the center of the village, which has oval, horse-shoes, or polygonal layout ([5:119], [8: 130], [9: 98]). However, the traditional village layout is changing in the modern context, and also Guols are altering in that regard.

In 2007, a traditional community house of ethnic minorities was reconstructed by mostly original methods through a JICA project in the Hong Ha commune, Thua Thien Hue province1. This is the first time that the villagers have completed the traditional community house since 1975. construction process and measurements of the house were recorded through by explaining village elders' large amount of indigenous knowledge [5]. The entire process, from material collection in the forest to on-site construction, demonstrates that vernacular architecture is constructed by using three local resources that were matured and conserved in the locality: natural resources (building materials); human resources (community cooperation); and intellectual resources (knowledge and technique).

However, the feature of traditional community house in Hong Ha commune is recognized as different cultural identify of some ethnic minorities such as *Ta Oi*, *Bru Van Kieu*, and *Katu* [5: 133]. Meanwhile, this research focuses on *Guol* of *Katu* ethnic minorities. Thus, different sites of *Katu* villages in Thua Thien Hue, Quang Nam provinces and Da Nang city were surveys in 2014<sup>2</sup> (figure 1).



**Figure 1.** Map of researched sites (source: authors)

The purpose of the surveys is to find out feasible site for reconstructing *Guol* of *Katu* ethnic minority based on traditional method. The criteria for selecting research site are that the *Katu* people living in the site should be

<sup>&</sup>lt;sup>1</sup> GSGES, Kyoto University and CARD, Hue University of Agriculture and Forestry cooperated with the rural development from Oct. 2006 to Sept. 2009, funded by the Japan International Cooperation Agency (JICA). Participatory construction of the traditional community house in the mountainous village was one of main activities in the project. The house was completed in Sept. 2007 [5].

<sup>&</sup>lt;sup>2</sup> The survey is supported by the JSPS program, Kyoto University, Japan.

motivated and they have knowledge for construction. Besides, the village does not have traditional community house. Finally, A Ka hamlet, Thuong Quang commune, Nam Dong district, Thua Thien Hue province was selected for the construction of traditional community house.

# 1.2 Context of Nam Dong district and A Ka hamlet

Nam Dong is a mountainous district in Thua Thien Hue province. The district is located on the Southwest of Hue city with the area of 64,777.9 sq.km. According to the staticstical data in 2017, the *Katu* people is predominant in Nam Dong district with population of 11,945, occupying 70% *Katu* ethnic minority in Thua Thien Hue province [7: 36].

Thuong Quang commune is 12 km on the west far from the center of Nam Dong district. The population of the commune is 2,174 in 2017 and *Katu* people occupies more than 60% (1,211 persons). The commune has 7 hamlets and *Katu* people mainly live in Ta Rau, A Rang, A Ro and A Ka hamlets. A Ka hamlet has 107 households (population of 328) and all of them are *Katu* people.

The former *Guol* of A Ka hamlet was constructed in 2004. The house was decayed with the leak from the roof in 2010 (figure 2) Up to 2012, the house was completely damaged and then, it was destroyed in 2013. Thus, the need of local people for reconstructing *Guol* is necessary.

According to the surveys, local people in A Ka are motivated and want to reconstruct *Guol*. Besides, there are many people in A Ka hamlet, who still master traditional method for constructing *Guol*. The local government also approves and supports official documents for the project. On March 2016, all stakeholders made an agreement for the reconstruction of *Guol* in A Ka hamlet. The project would be finished on October 2017 (In reality, the project was

finished on 20th August 2018).



**Figure 2.** Situation of former *Guol* in A Ka from August 2010 to April 2014 (photos: authors)

# 2 Arrangement for the reconstruction

## 2.1 Roles of stakeholders

Before the reconstruction of *Guol*, many meetings among local people of A Ka hamlet, local government (Hong Ha commune, Nam Dong district) and consultative researchers (the authors of this paper) were held for discussing, unifying process of the project. Finally, the roles of each stakeholder can be identified as follows:

A Ka hamlet has responsibility to exploit and collect necessary materials (woods, leaves, etc.); do outwork for *Guol*; construct *Guol*; organize traditional ceremonies during process of reconstruction; and maintain the *Guol* after the reconstruction.

Local government has responsibility to support the process of official documents and policies relating to material exploitation; check and speed up the construction work. Consultative researchers have responsibility to support part of budget for labour costs<sup>3</sup>; consult constructed technique, custom, etc.; supervise process of the construction; record and digitalize data of reconstruction process; interview and organize meetings to discuss and share knowledge for the construction maintenance of the Guol after completion.

<sup>&</sup>lt;sup>3</sup> For the construction, local people have to spend a lot of their time and labors. After several meetings, it can be calculated as 366,860,000 VND (1 US Dollar equals about 23,000 VND) and Kyoto Univ. agreed to support 125,000,000 VND.

## 2.2 Preparation of A Ka hamlet

The hamlet set up management board for reconstruction to manage and guarantee the progress of the reconstruction (table 1). The hamlet leader, Mr. Ho Van Chang, is the chairman of the board. Other members are Mr. Ho Van Bon (patriarch), Mr. Vo Dai Huy (Secretary of the Communist Party of the hamlet), Mr. Ho Van Bang (expert for construction) and Mr. Van Ngoc Cuong (expert for sculptural work). Under the board, 4 groups are divided for different missions.

Table 1. Structure of management board

	Management board			
	Group 1	Group 2	Group 3	Group 4
	Material	Sculptural	Construction	Ceremony
	collection	work	technique	organization

Group 1 has duty to collect materials from the forest and other fields. This group has 3 subgroups: one collects woods for the structure of the *Guol*; one collects *Non* leaves (local leaves for tiling roof); and one collects trunks of *Lo O* tree (kind of bamboo, utilized for partition and floor) and trunks *May* tree (rattan tree, utilized for tie wood components and used as round purlin).

The most important and difficult work is to collect woods for the structure of the Guol because it is hard to find quality wood as well as the policy for closing forest of the Vietnamese government in 2016. The group 1 is divided into 4 small groups (each group has 4-8 persons) to go to the forest several times (8-10 km far from the hamlet), check, evaluate condition of wood and then, exploit selected trees. According to indigenous knowledge, the time for exploiting woods should be at in the end of the month (when there is no moon and termites will not eat wood) and dry season (it is more convenient transporting wood). For construction, the local people should exploit 13 trees for pillars, whose circumferences are around 4 (H-1) to 5 (H-1) as shown in figure 3. The height of center pillar is 4 (A-1) - (A-2) and other pillars are 2.5 (A-1).

Besides, 12 roof beams are cut. Their height is around 3 (A-1) to 3.5 (A-1) and their circumferences are from 2.5 (H-1) to 2 (H-1). The exploited tress should be straight and be transported by buffaloes. All villagers have duty to collect *Lo O, Non*, and *May*. For tiling roof, the villagers make 24 sheets with dimension of 2.5m x 1.8m.

Mr. Van Ngoc Cuong is the leader of group 2 having duty to design, paint patterns and pictures on wood components, specially the center pillar. The group carves images expressing normal living style of *Katu* people, symbols relating to their religious belief.

Group 3 manages techniques of *Guol* construction. Mr. Ho Van Bang is the leader of this group and he has duty to assign work for group members such as chisel mortises, joint holes of components, etc. The group also prepares foundation and makes foundation stones for pillars<sup>4</sup>.

The patriarch of A Ka hamlet, Mr. Ho Van Bon is the leader of group 4. He organizes traditional ceremonies during the construction.

# 2.3 Method for reconstruction

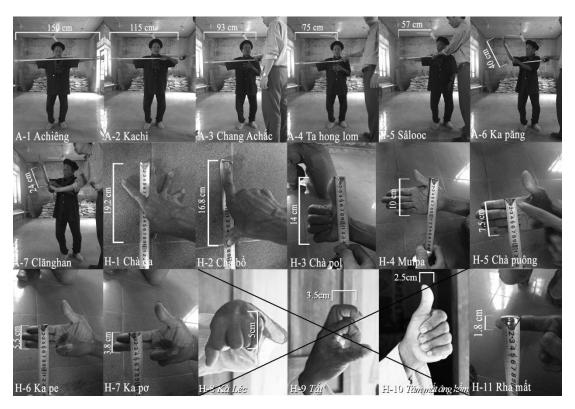
There are two sites that the local people selected for the construction. After discussion, the site of former *Guol* was selected because the foundation can be reused and the orientation (the Northeast) that the *Guol* faces is found as a good orientation for the hamlet.

Regarding architectural form, local people and researchers agreed to construct the *Guol* followed experiences of patriarchs and village elders, who still remember traditional method of construction. Besides, the hamlet also referred ideas and drawings of

<sup>&</sup>lt;sup>4</sup> According to traditional method of *Katu* people, pillars should be fixed into the ground. However, local people in A Ka hamlet decided to put pillars on the foundation stones for preventing from termites.

researchers for satisfying basic requirement about area, functional usage, materials, traditional form of *Guol*.

for using his body units. During the construction, the local people sometimes use ruler and modern tools for more



**Figure 3**. Demonstration of body-based units in A Ka hamlet, Thuong Quang commune (Source: authors)

It was known that *Katu* people use body-based units of measurement for design and construction of *Guol* (figure 3). The *Katu* normally use 18 types of units<sup>5</sup>. Depending on specific hamlet, the *Katu* may not use some unit types. For example, *Katu* people in A Ka hamlet do not use types H-7, H-8 and H-9. In cases of A Ka hamlet, the local people agreed to construct the *Guol* based on 18 types of units and the patriarch of the hamlet, Mr. Ho Van Bon, was chosen

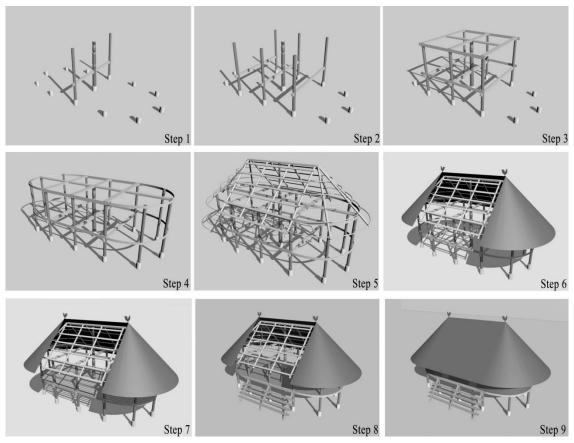
convenience.

Regarding materials, some local people firstly suggested to utilize modern materials such as concrete and sheet metal for columns and roof because of sustainability and convenience for material exploitation. After that, the hamlet unified to construct the *Guol* by traditional and local materials such as wood, bamboo, rattan, etc.

# 3 Reconstruction process

The *Guol* is constructed following the traditional style required skilled techniques and labors of all villagers. The construction of *Guol* was implemented in the 9 steps as shown in figure 4.

<sup>&</sup>lt;sup>5</sup> Based on our previous researches, it is found that the *Katu* use 17 types of body units [4]. However, according to the survey with 25 patriarchs in Nam Dong district in 2018, the *Katu* has one more type of unit for design and construction.



**Figure 4**. Demonstration of body-based units in A Ka hamlet, Thuong Quang commune (Source: authors)

Firstly, the center pillar and 2 main pillars in front and behind were set up on 20<sup>th</sup> May 2018 (step 1). The other 4 main pillars were put in parallel pairs (step 2). Thus, there were 2 parallel lines of main pillars running up to the sixth pillar and the center pillar was put in the middle center position.

The next step is that cross and eaves beams were assembled (step 3). This work made a firm solid connection thanks to notches for beams and slots of the main pillars and center pillar. The cross beams were assembled and connected by their slots and fastened to the vertical beams.

The step 4 was to set up 6 round pillars and

assemble round beams. After that, the local people put the upper part of center pillar and a cross beam via the center pillar. Each pair of roof beams were assembled facing to the above cross beam. Each side of the house roof has 4 roof beams. Each pair of cross beam make an "X" shape in the top and is closely tied on the ridge pole that securities it firmly (step 5).

24 leaf units were utilized for roofing from the top to bottom. After that, roof crestings were put on the top of the roof (step 6). The villagers crafted cock symbols for roof cresting because they claimed that the symbol could wake villagers up to go to work every morning.

The step 7 was to assemble 19 floor beams and floor joists with a distance of around 250mm. Then, floor surface was made by straightened *Lo O* slats (step 8). The stair was implemented at the same time. There are 5 steps for the stair. According to the *Katu* people, number 5 has a good meaning.

Assembling partitions were the final step for the construction. For this work, *Lo O* leaves were split into small sheets depending on the size of the partitions (850mm x850mm).

On 20<sup>th</sup> August 2018, the *Guol* house was finally completed and local people in A Ka hamlet organized an inaugurated ceremony for the new *Guol* (figure 5). Therefore, the project for reconstruction of the *Guol* in A Ka hamlet was implemented for more than 2 years after discussion, going through official documents, collecting materials and construction.



**F igure 5.** *Guol* house in A Ka hamlet during inaugurate ceremony (photo: author)

#### 4 Conclusion

Traditional community house, *Guol*, in A Ka hamlet, Thuong Quang commune, Nam Dong district, Thua Thien Hue province was collapsed in 2013 and a project for reconstruction of *Guol* was set up on March

2016. Based on agreement among local people, local government and project researches from KU (Kyoto University, Japan), HUSC (University of Sciences, Hue University, Vietnam) and VICAS (Vietnam Institute for Art and Cultural Studies, Branch in Hue), the reconstruction process of Guol was finally completed on August 2018. The implemented process was following traditional methods of Katu ethnic minority and based on various discussions, going through official documents, collecting materials and construction.

The construction of *Guol* was completed after 3 months following 9 steps. It is determined that the new *Guol* is the result and achievement of all local people in A Ka hamlet and the project is a typical case for community based construction of *Guol* house. This result can be expanded to other hamlets of the *Katu* in the central region of Vietnam.

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