

Young designers and senior artisans developing weaving crafts: a comparative study  
of a design workshop with Mlabri community in Nan and highland villages of Chiang  
Mai Province

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### Abstract

The northern region of Thailand has long been known for its rich natural resources for producing weaving arts and crafts. Local craftsmanship for producing tools from natural materials such as bamboo, rattan wood, grass and ivy has historically been integral in village life. However, the influx of modern goods and cheap plastic products throughout the mountainous area made local weaving crafts and tools diminish, as it took longer time to produce and was not attractive enough for modern usage. Only a few elderly people in the villages still produce woven baskets while younger generations focus on other works to generate more income. This research paper discusses the work of Industrial Design students and faculties from King Mongkut's University of Technology Thonburi (KMUTT) in three areas of study; the Mlabri community in Bor Kluea District, Nan Province, and two villages in Chiang Mai Province. The class of 16 students collaborated with 3 highland communities with the aim of developing weaving crafts by learning from and building partnerships with elder artisans. Seeing that a young generation of students from urban Bangkok valued the experience of learning to weave local products created a sense of pride in the community. Synchronously, young students also introduced local artists to new techniques and design suitable for modern lifestyle. As weaving crafts is a time-consuming process, it requires a healthy relationship between teachers and students to understand each other and compromise their expectations to complete the final products. With KMUTT's connection to new markets, newly designed weaving products could be the inspiration for artisans and other younger villagers to continue making crafts that represent local identity of the communities.

### Introduction

Handicrafts of hill tribe communities in northern Thailand represents the their relationship with nature. With rich unique material resources in the forest such as bamboo, ivy, grass, palm and etc., communities in highland area demonstrated skill in

transforming forest products into unique handicrafts for common usages in their everyday life practice of rural agriculture. However, with the consequence of Cold War politics and the major economic development in Thailand starting at the beginning of 1960s, Thailand has transformed from agricultural to more industrialized society. Moreover, in context of northern Thailand that illegal opium cultivation was practice in the area of local hill tribe minorities, Thai government also stimulated more development into the mountainous region, the industrial goods therefore gradually replaced crafts products in everyday life activities of local communities.

On the other hand, the development program originated by Cold War politics and American's involvement in Vietnam War generated tourism business in Thailand. Crafts in Thailand has long been viewed as traditional practice of the past (Leesuwan 1981, Warren and Tettoni 1994) and commercialized as souvenirs for tourists (Cohen, 2002). Crafts could also be high potential to be revived as additional source of income for community.

This research study focuses on the collaborative work between the group of young students, faculties and designers from King Mongkut's University of Technology Thonburi's Industrial Design Program and 3 local highland communities of Chiang Mai and Nan Provinces in developing weaving handicrafts. In the first case of Bor Kluea District of Nan Province, Mlabri community demonstrated the high skill in making handicrafts from special ivy bark they collected from the forest and coloring products with natural color. Handicrafts of Mlabri also signifies the symbiosis relationship between Malbri and forest since Mlabri collected all materials from the natural environment with ecological concerns. However, Mlabri tribes had been push out of forest due to heavy deforestation since the turn of 20<sup>th</sup> century. Therefore the ivy handicrafts could be possibly developed as major source of income for the community and promote forest conservation. In order to develop weaving product, students and faculties are obligated learn how Mlabri craftswomen make thread and weave which is their unique skill related to their body motion. The second and third cases of the villages of Kai Noi in Mae Taeng District and Village of Mae Tha in Mae On District, in Chiang Mai, reveal how weaving artisan groups in communities had coped with the decline of the demand for weaving baskets since agricultural pattern changed and more cheaper plastic products became available locally. The Royal Project Development Center at Mon Ngor and Mae Tha Nuea supported villagers 's weaving products by order baskets and trays as part of annual new year gifts to clients. The students observed and learnt from crafts makers how to weave bamboo and Khor bark stripes into baskets. They also designed new products made of Bamboo such as

trays, bamboo chest set and bamboo stool. Students exchanged idea of the new design with crafts makers and they collaborated to invent new details for the products.

#### Lesson learn from making handicraft with Mlabri Community at Phufah Phatthana Center, Bor Kluea, Nan Province

A collaborative study of Mlabri's handicraft is a unique experience. From August 2016 through November 2016, the team of 2 faculty members, 2 exchange students and 16 students of Industrial Design Program, School of Architecture and Design, King Mongkuts University of Technology collaborated with 5 members of Mlabri community at Phufah Phatthana Center in Bor Kluea District of Nan Province. It differed from other communities the team of KMUTT Industrial Design students and faculties had work with before. The major obstacle the team predicted was language barrier since five of Mlabri crafts makers whom the team worked with could not speak Thai. However, the communication was not a problem as expected since Mlabri can demonstrate the process of their handicraft making by direct method of "learning by doing." Crafts making became the way Mlabri communicated to the research team. Researcher followed Malbri to the forest, and collected materials for weaving products together.

First, five of Mlabri craftswomen brought the team to see the ivy plants in the forest nearby that they used as materials called in Mlabri language "Thapaed" or "Pueraria Alopecuroides." They showed two different kinds of Thapaed ivy and selected the ones that were ready to use by color. Mlabri taught researchers and students how to peel the ivy by knife and use only the bark which is white.

Secondly, after collecting enough dried Thapaed bark fibers, Mlabri dyed them with all natural materials. For instance, they used "Throm" or Indigo leaves for grey color, fresh turmeric root for yellow, "Yor Pa" or fresh wild noni root for red, Teak leaves for brown, and Throm leaves mixed with turmeric root for green color. Mlabri demonstrated the process of coloring directly by pounding the "Throm" leaves, mixing with water and then rubbing these materials with Thapaed fibers. For red color, we can mix roots of "Yor Pa" and ash together.

After dyeing fibers, Mlabri twisted 2 fiber strands into tougher thread. Mlabri craftswoman, Ms. Montha, worked on making thread by pressing 2 fiber strands on her shin then spinning down to her ankle swiftly. This process required special practice and skill for flexible torso while spinning 2 strands down on shin to complete thread. At first, it was time consuming for the researchers and students to learn the suitable sitting position to spin the thread and need to adjust body movement to twist fiber

strands since everyone has different body dimension. The first thread looked loose and was not tight enough. The research team members need to understand the key point of making thread that they need to press on while spinning back and forth on our shin. The positions of 2 fibers need to be apart from each other in some certain length and the hands should not press too stiff on fiber and allowed the 2 fibers to roll back to be the completed thread. This is tacit knowledge of Mlabri that the research team need to understand before offering new idea and design of these particular ivy products.

After practicing making thread with Mlabri, the researchers employed the Biomechanic analysis method to understand how Mlabri crafts makers work on weaving bags. The process of making thread from ivy bark reflected that anatomy, body posture and kinetic action such as hand position, movement of fingers and hand weight are all related for making ivy craft. This became special technique of each craft maker or we can call it tacit knowledge. In order to produce handicraft, the crafts makers need to find the right sitting positions and body motions which is suitable for their bodies to spin, weave and manipulate the threads together into various forms of bags. It is easier to compare the process of crafts making to pianists. If the pianist need to play the wider range of keynote, they need to move the chair further from the piano so that they could spread their arm to transfer force precisely and efficiently from shoulders and arms to fingers and play piano.

When the student team achieved first thread, everyone were eager to learn the next step of weaving a bag. With more background in industrial design employing various machines to generate models of designed products, the team wished to complete this preparation process as fast as possible but cannot communicate with Mlabri to prepare more threads. As a result, Mlabri craftswomen kept continue to produce more thread. Mlabri demonstrated their natural habit of perseverance and hard-working ethic as their traditional value to researchers. So most of the team had no alternative but followed to practice making more and longer ivy bark thread and gradually became fluent in this process. This actually was an advantage for research team to practice more detail of making thread and gain more confidence with fundamental knowledge for this special handicraft. Moreover, the research team learned to observe more of Mlabri household life activities while making more yarn.

After having enough ivy threads, the craft maker trained KMUTT researchers and students to make the base part of the bag. The Mlabri craftswomen used special bamboo tools to hook and weave threads together similar to crochet that was used for embroidery. The weaving process is easy step to learn since we can observe the pattern how thread knit together and can trace back to see the path. The difficult step

to learn is the preparation for materials. The process of making thread is difficult to grasp but still can learn by contributing more time for practicing. Mlabri crafts makers knew which teak wood trees provide them the leaves with darker or lighter shades of brown color, which ivy bark was tough enough. These tasks were tacit knowledge of Mlabri that is hard to transfer to be explicit knowledge since it was their experience with forest in the north and . Moreover, Mlabri also can prepare how many and how long ivy threads they need for the different size of bag. The craft makers learned from their experience and planned ahead. This preparation can be analyzed and calculated as the science of craft.

Ms. Neerumporn Sirisongkon, a 4<sup>th</sup> year student of Industrial Design Program at KMUTT was inspired by the way of life and weaving work of Mlabri. After learning process of making ivy weaving bag and technique, she applied crochet knitting technique to original weaving detail. As a result, she created different shapes of the base of the bag. From the original linear base, now Mlabri's ivy bag are in circle, ellipse and leaf base and etc. With more variety of forms, Mlabri can create various kinds of bags with more functions in the future. Moreover, Ms. Neerumporn and Mr. Phumraphi 3<sup>rd</sup> year KMUTT ID students, collaborated to design 4 prototypes of Mlabri Yorg Ivy bags as example of new design.

The second group that KMUTT ID team also worked at the same time was the weaving group of Kai Noi Village under the Royal Project Development Center at Mon Ngor in Mae Taeng District, Chiang Mai. Village of Kai Noi is famous for weaving craft made from specific palm bark and bamboo. The weaving group at Kai Noi Village was led by Mae Luang Nee who is the wife of village headman. The difference of Kai Noi case is the leadership of the group. Mae Luang Nee was relatively calm but eager to challenge for new task and try new method for weaving new products. The leader of the group possessed delicate weaving skill but other members still need more practice. The major problem is about distribution of work among the group members and standard of work since members have different weaving skill. The challenge for collaborating with Kai Noi group is the training exercise that can improve the quality of work while produce the unique products reflecting identity of the village.

The area of Mon Ngor is famous for its natural setting such as tea plantation and mountain peak for tourist sightseeing spots. The well-recognized plantation called Rai Cha Lung Det in this area produces very fine Oolong, green and white tea. The tea plantation became inspiration for ID students to design the tea package and serving trays for testing tea. The design for tea package made of Khor palm bark could reflect

identity of Mon Ngor area and connected handicrafts of Kai Noi to tourism business and activities.

The boxes and trays made of Khor bark stripe was designed by the team of 3<sup>rd</sup> year students in Industrial Design program of KMUTT, Ms. Phimphet Thanakitkamthon and Mr. Thanat Ekpraphai, for tea package and serving tea at Rai Cha Lung Det. The design is a mix of local identity of Mon Ngor and Chinese through the Khor bark stripes with weaving pattern echoing Chinese window frame. Another new design is the bamboo chess game by Mr. Thanaphat Thatthanaturat, 4<sup>th</sup> year student of Industrial Design Program. Each of chess piece was made of bamboo with solid plastic base for increasing weight. The design offers crafts to be a part of modern hobby that tourist can buy as souvenir products.

#### Outcome and consequences

##### Study Outcome

- 1) students understand local everyday life activities of highland communities and learn more about cultural diversity of communities in the northern Thailand
- 2) students understand the procedure of collecting, preparing and processing materials from natural environment to handicrafts.
- 3) students learn all procedures of making design product from creative thinking process to production process. Students also practice to calculate of all cost such as labor, materials and time and selling price.
- 4) students learn contexts of materials, value of materials and tacit knowledge of craft makers how to process materials into crafts. students realize value of craft products through hands on experience with local craft makers.
- 5) By making handicrafts with local crafts makers, students learn to control their own body-motion, rhythm, and concentration on products. Students practice self-tolerance, endeavor, motivation and fulfillment to complete the products by their hands.

##### Community Learning Outcome

- 1) Community got enthusiastic and realized the value of their local knowledge
- 2) Community experienced new concept and design trends from students and faculties in Industrial Design of KMUTT and RMUTL therefore generated new idea to their practice of making crafts
- 3) Crafts makers in the community could develop new form of products by teaching and coaching students who lacked of technique. The questions and new ideas from

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students challenged local crafts makers to rethink weaving method, develop new technique for weaving crafts and redesign appearance of products in the future.