

# MURAL TO IKAT TEXTILE ART

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## Abstract

Textile art can be creatively generated in several ways. Woven Image Art is one of those approaches which uses the traditional Mudmee weaving technique. The main objectives of this project were to 1) create a new piece of Mural to Ikat Textile Art which portrays the royal duties of His Majesty King Bhumibol Adulyadej (King Rama 9 of the Chakri Dynasty) 2) develop diversity in Mudmee weaving patterns, building on the applied patterns to create new motifs that reflect society and its associated era 3) convert original art using Mudmee weaving to preserve local knowledge and 4) convey artwork through Mudmee weaving onto Ikat fabric. An image piece was initially designed and sketched, the warps and wefts were then prepared, and silk fabric was woven using the overlapping Mudmee (Double Ikat) technique. Notes and continual analysis of the work piece were recorded throughout the process. The 20 meter long, silk fabric piece was successfully created by using the overlapping Mudmee (Double Ikat) technique. It is similar to mural paintings portraying His Majesty King Bhumibol Adulyadej's royal duties. This contemporary textile art piece is a new body of knowledge developed from local wisdom.

**Keywords:** Mural; Mudmee weaving; Mudmee; Ikat Textile Art

## Introduction

Textile art can be created in several ways. Woven Image Art is one of those approaches which uses the traditional Mudmee weaving technique. The concept of combining textile weaving and works of art is a means to develop traditional weaving patterns with more enhanced designs. It creates a story of patterns on a single piece of fabric. In other words, this creative work uses ordinary woven textile which is amended and adjusted with an artistic touch. The result is a work of art which tells story. Here, we portray the succession of His Majesty King Bhumibol Adulyadej's royal duties. This is narrated on a piece of woven textile, similar to the art narrated on Buddhist chapel walls; it is a combination of Thai painting and traditional weaving. It recalls the cloth that was used to write stories of Buddhism or Buddha on a long-woven textile as sign of expressing respect and worship.

It is acknowledged that previous generations of Thai people were capable and skillful at Thai weaving. There are lots of evidence that indicates that Thai people wove their own clothes. This can be seen by considering the mural paintings in Buddhist churches, chapels, and temples. They show that Thai people in Lanna wove clothes themselves, using techniques inherited from their ancestors, according to the style preferences in each locality. For instance, we can see such work of art on mural paintings at Wat Phumin and Wat Nong Bua in Nan Province; and Wat Phra Singh Waramahavihan, Monthian Tham Hall at Wat Bupparam in Chiang Mai Province. Similarly, in central Thailand, locals created mural art works in temples. For instance, at Wat Pho Nimit Sathit Mahasimaram (Sook-Yam, 2006), Wat Ratchapradit Sathitmahasimaram, Phra Buddha Rattana Sathan in the Grand Palace, Bangkok.

The weaving technique used for making textile art work is called 'Mural to Ikat Textile Art.' This can be explained by the use of the overlapping Mudmee (Double Ikat) technique to create both the textile and the work of art. To portray the royal duties of the beloved king of the Thai people, His Majesty

King Bhumibol Adulyadej, inner-shell and outer-shell silk fibres are the most suitable material for weaving. The unique lustre and shining characteristics of silk fibres give the woven image a lively polished look and feel. Furthermore, the Mudmee weaving process is richer and more diversified than weaving with other types of fibre. It is the most complete and creative work from silk.

The overlapping Mudmee (Double Ikat) technique is chosen as it is a technique with special characteristics. The pattern is obtained while creating a story and composing images of His Majesty King Bhumibol Adulyadej onto the fabric. The weft yarns use a tying method with the addition of colour painting, while the warp yarns use colour painting only. The tying weft yarns have joints and sections which are boiled to dye colours. The permeability of colours that run into each other gives streaks on the bundled fibres. It also gives the inexact or overlapped patterns while weaving. This gives the uniqueness of this Mural to Ikat Textile Art.

### **Research Objectives**

1. To create a new piece of Mural to Ikat Textile Art which portrays the royal duties of His Majesty King Bhumibol Adulyadej.
2. To develop diversity in Mudmee weaving patterns, building on the applied patterns to create new motifs that reflect society and its associated era.
3. To convert original art using Mudmee weaving to preserve local knowledge.
4. To convey artwork through Mudmee weaving onto the fabric.

### **Research Methodology**

This creation of woven image art is an action research conducted by weaving a 20 metre by 1 metre piece, using a silk-fibre fabric with the overlapping Mudmee (Double Ikat) technique. After studying data and

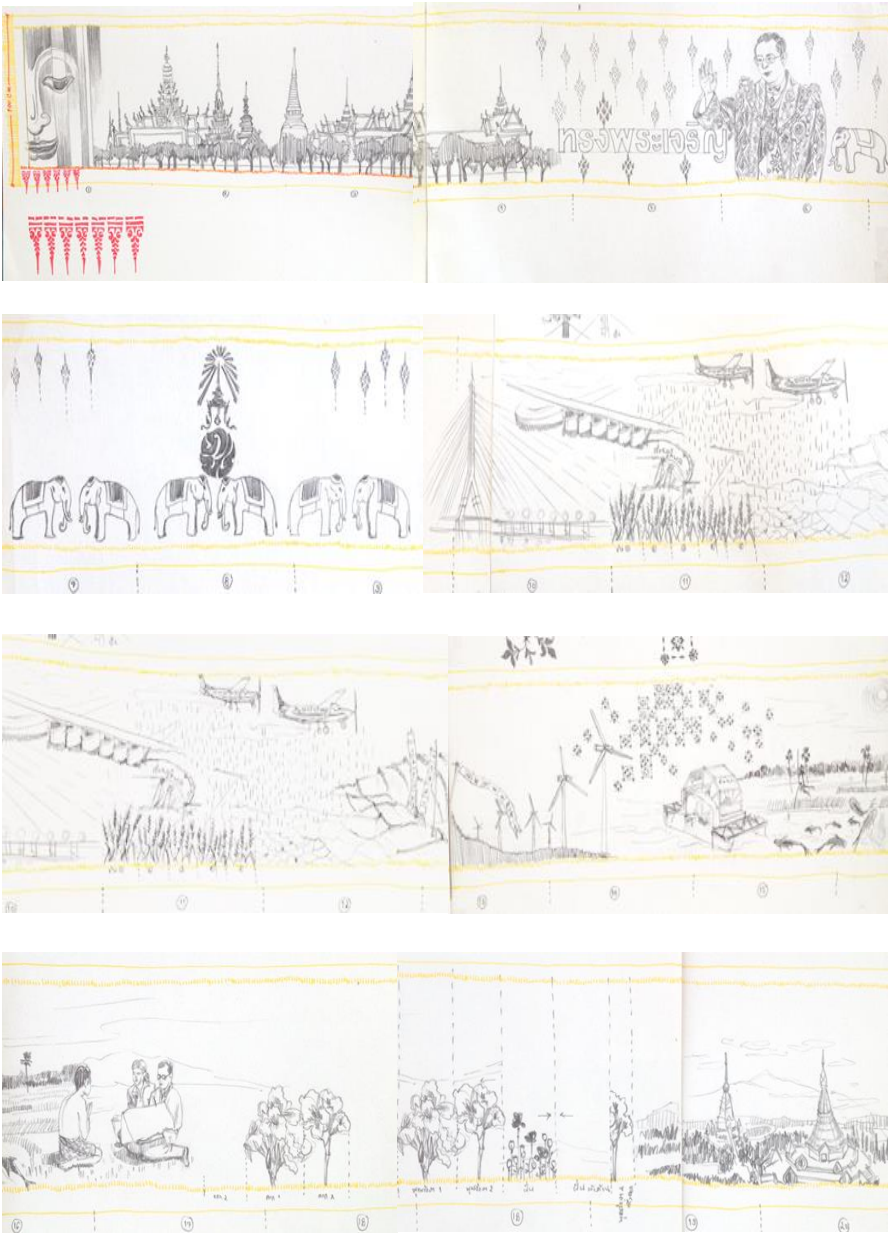
information resources, the method and steps in creating this piece are as follows:

1. Design and sketch the image piece.
2. Prepare the warps (inner-shell yarns) and the wefts (outer-shell yarns).
3. Weave to create the work while continuously analysing and taking notes of the process.

### **Design and Sketch of the Image Piece**

The researcher studied, collected and analysed data related to the design. This was used as a guideline for designing and making the image piece sketch which is 20 metres long. The work steps are as follows:

1. The step of making the lined patterns is to process and convey the ideas onto the draft sketch. It is the initial design for further development (Figure 1-3).
  - 1.1 The sketch was done with a pencil and a paper firstly. Then, computer sketching was used for convenient further use.
  - 1.2 The image composition was manually positioned and reviewed for harmony and completion. The process continued with the arrangement and composition of His Majesty King Bhumibol Adulyadej's major and outstanding royal duties, to be apparent on the fabric.



**Figure 1:** Step 1: Sketch of Lined Pattern with Pencil.

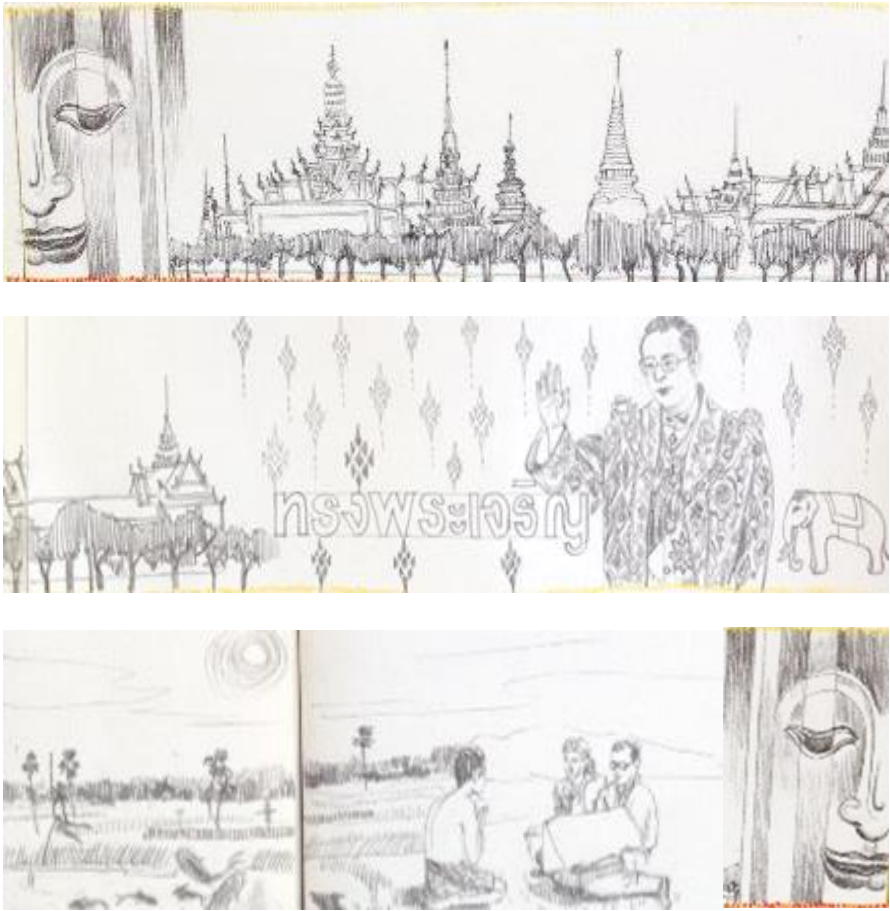
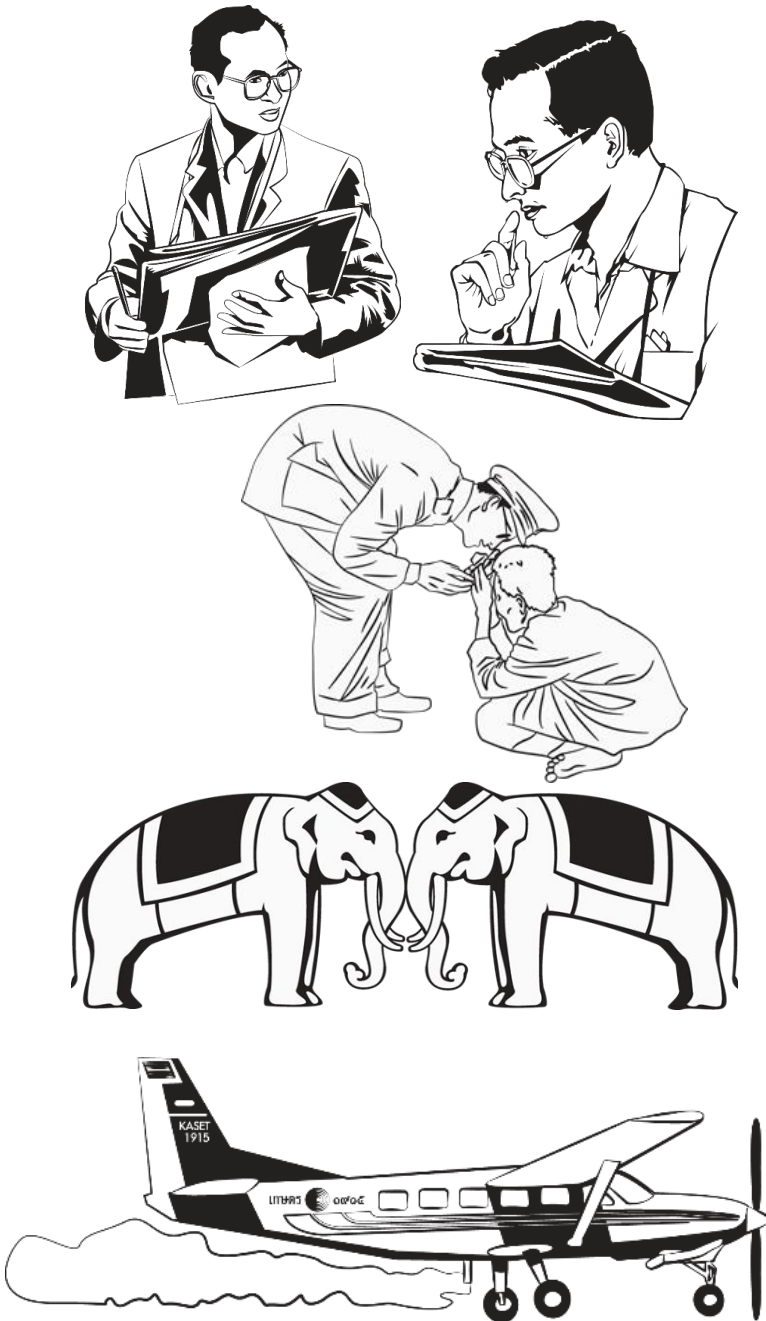


Figure 2: Step 2: Sketch of Lined Pattern Chosen



**Figure 3:** Step 3: Sketch of Lined Patterns by Computer

2. The completed sketch was done with the following steps:

2.1 The best pencil-drawing sketch was scanned into a computer format. Then, the scanned image was rearranged or had additions as desired (Figure 4-7).

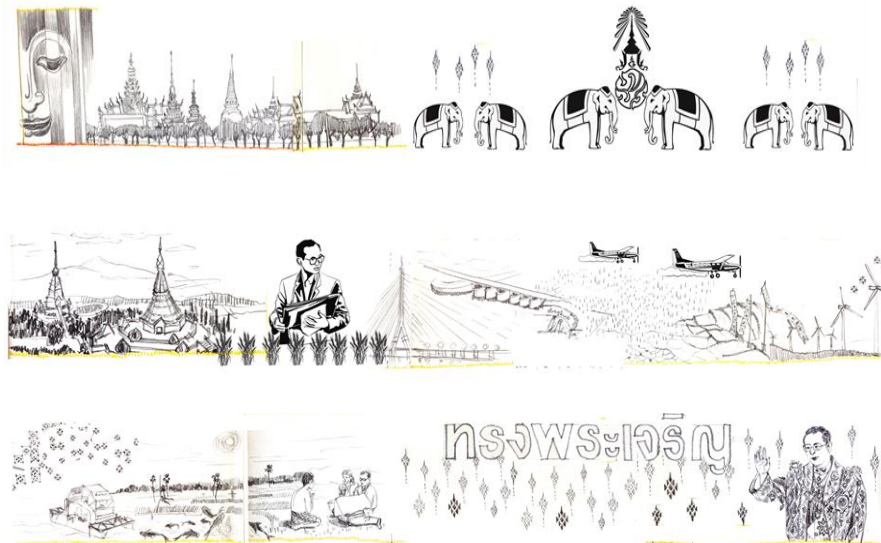
2.2 The colours on the weft and the warp had to be clearly specified. That way, the selection, screening and checking of details in various aspects was the most efficient. This included arranging the composition, shape, suitability of the work piece and the possibility for further development (Figure 8).



**Figure 4: Sketch by Pencil with Actual Data**

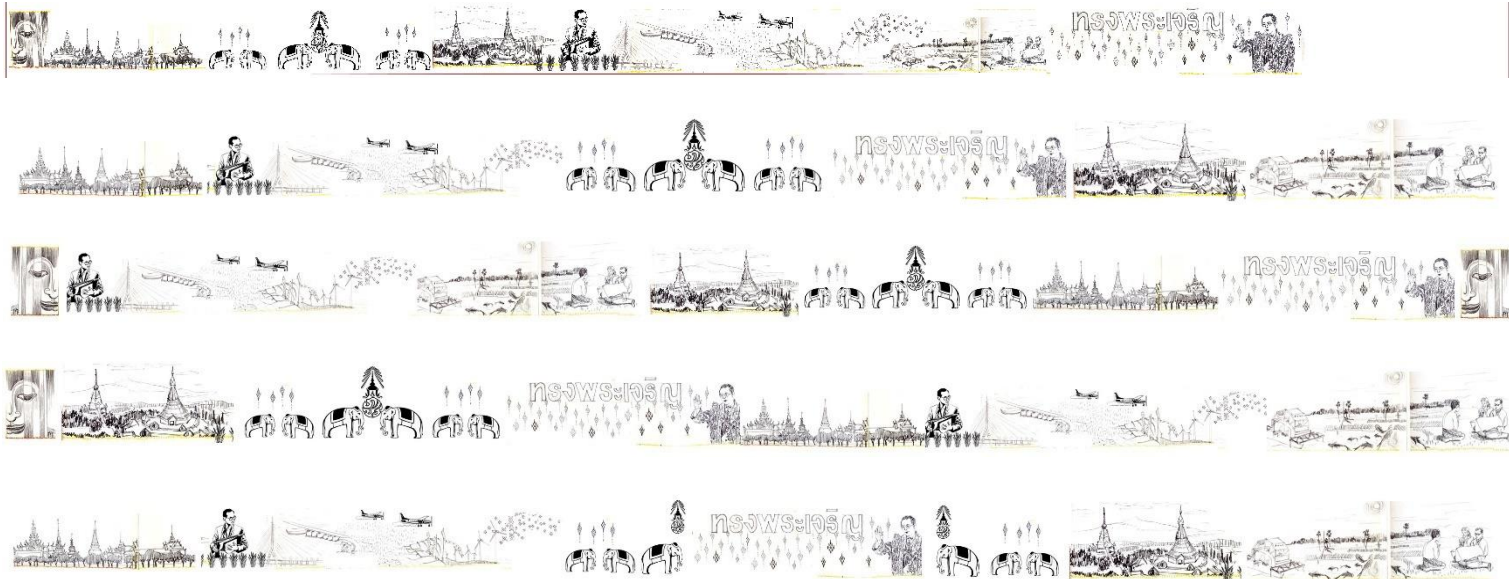


**Figure 5: Sketch by Pencil**



**Figure 6:** All Images Scanned onto a Computer and Rearranged





**Figure 7:** Various Image Arrangement



**Figure 8:** The Most Appropriate and Distinctive Sketch Chosen with Colour



**Figure 9:** Colour Sketch Part 1



**Figure 10:** Colour Sketch Part 2



**Figure 11:** Colour Sketch Part 3



**Figure 12:** Colour Sketch Part 4



**Figure 13:** Colour Sketch Part 5

3. Format analysis was a step to determine the width of each pattern. It was also to make the pattern sections appropriate for weaving a fabric of 20 metres long or more (Figure 14). This was done by placing the format onto grid lines and expanding the patterned sketch, section by section. The weft colours were separated from the warp colours in order to prepare for weaving. This also facilitated the weft calculation before starting the weave.



**Figure 14:** Colours of the 20 Metres Warp, Using Gradient Dye in Each Pattern Section to Match with the Weft Patterns.

### **Preparing the warp and the weft**

This project focuses on Mudmee weaving with silk fibres, using the inner-shell yarns as the warp and the outer-shell yarns as the weft. The process is divided into two steps:

1. The warp preparation (Sukonthamane, 2012) starts with silk reeling. The inner-shell yarn is chosen for delicacy of the work piece. Then, the yarn is boiled for degumming and cleaning. After that, it is put into the motif elaboration process, by calculating the warp to be 1 metre in width and 30 metres in length. While the work-piece length is 20 metres, the extra 10 metres is for silk rolling during the weaving. After obtaining the warp, it is attached onto the same set of harnesses before hooking the set to the loom. Each silk fibre is arranged in a single line, not overlapping. Before weaving, flour-diluted water must be applied to harden the fibres, so that they are not fluffy and do not tear easily during weaving. The colour paint is applied on each pattern section of the warp according to the sketch.

1.1 'Saw-mai or Silk reeling' is the process where a stick with the length of 70-80cm is applied. One end of the stick has a prong which is used to drown shell silks and pull the yarn to the string on the hanging hoist called 'Puang-Saw', which clings to the edge of the pot, then the yarn is placed in a basket. More shell silks are added into the pot periodically to gain a great quality of long line yarns.

1.2 'Degumming' is known as the process when the hard yellow-coloured yarn is refined by boiling them with alkaline powder or a bar of soap. The yarn is boiled for 30 minutes and flipped around at 5 minute intervals for softness. Then some bleach is added to whiten the yellow yarn.

1.3 'Khon' is a yarn preparation process by bleaching and reeling them onto the yarn holder, then bound onto the loom frame for the length of the work piece. A width of 2 metres is required in order to obtain a piece of work of 20 metres in length, which equals to the specified length of the creative work draft. The extra 10 metres of weft yarn must be added for silk rolling during the weaving process. As a result, the length of weft yarn is determined as 30 meters. The yarn should be held onto 8 poles in a zigzag pattern and the width of fabric must be equal to the width of the beater, which is 1 metre long.

1.4 'Colouring or dyeing' spread the silk fibre lengthways for the Tie Dyeing process or Paint-Dyeing as planned on the draft.

1.5 'Sueb-Sen-Yai-Mai', 'Sueb-Hook', 'Keb-Ta-Kor' or 'Keb-Khao' are binding methods. The weaver brings a new set of coloured silk fibre to bind with the original set of silk fibre, line by line until they are all settled.

1.6 'Binding yarns onto the loom' is the process where the weaver brings the whole set of tools along with the yarn to bind with the shuttle, and tie the beginning weave point with a wooden stick. The yarn is bound onto other parts of the shuttle serially, array each line of yarn is arrayed carefully without overlapping other lines. Before weaving, the weaver must coat the yarn with floured water to harden them. The substance will reduce fluffiness and prevent the yarn from ripping while weaving.

2. Before creating the weft motif, preparation (Sukonthamane, 2012) starts from the process of silk reeling, boiling for degumming, silk yarn tugging arrangement and spinning. The outer-shell silk yarn is used because of its unique fibre characteristics. The texture is not evenly smooth like the inner-shell silk yarn, but these fibres come in different sizes which create a special texture and add dimension to the fabric. Once the yarn with motif elaboration is ready, it is put on the tying stalks. Each stalk is neatly arranged at equal intervals to facilitate the tying of patterns as per the sketch outline. The plastic ropes are used to tie each stalk in this process. Dyeing is achieved starting from the light colours, tied with plastic ropes. The dyeing of darker colours comes afterwards, following the same process. This is done until all the colours are obtained, as per the sketch. The next step is to unwrap the yarn, which means untying all the plastic ropes, before spinning the yarn onto bobbins. The bobbin threading must be in the order as indicated in the patterns. If not, the woven image will not resemble the original patterns which were drawn and knotted prior to this.

2.1 'Dhong-Mai' (boiling for degumming) is to boil the raw yellow-coloured yarn in order to remove the glue (saliva of silkworm) and the filth in the yarn which is excreted when silkworms spray their fibre into a cocoon. 'Dhong-Mai' makes the yarn become soft, clean and more absorbable to the dye colour. The process begins with boiling the yarn in water mixing with alkaline powder, or any other alkaline substance. A shredded bar of soap, wetting agent or high intensity soap could be used instead. In this research, the researcher produced an alkaline base water by dissolving the ashes of dried banana leaf and the ashes of firewood from a stove in water. The solution was then filtered to gain alkaline water for chemically free use. The yarn must be continually flipped while boiling, so the weaver should tie a hook onto the yarn to make this more convenient. Upon approximately 45 to 50 minutes of boiling, the yarn is taken out and washed with clean water, and further left to dry in the sun. The degummed yarn should turn from a yellowish colour into an ivory white colour. It will not be extremely white as when using a bleach

substance to help with the dyeing. More importantly, there will not be any chemical smell on the yarn but an extraordinary fragrance and softness instead.

2.2 'Kra-Tuk-Mai' or 'Thok-Mai' after cleaning with water, is to dry the yarn on a wooden rail and waft them so they will dry faster and separate the lines. This way, the yarn will be stretched making it easier to weave. Each thread should be of the same length.

2.3 'Kwak-Mai' is a process where the weft and the warp

2.4 'Khon' the warp' is a formula which helps calculate the number of 'Lhum' for the weaving of 'Mudmee' fabric. Surprisingly, this formula is up to 95 percent accurate, and the element of this formula comes from the length of the desired fabric in centimetres. The formula shows the numbers of 'Lhum' and the warp.

Calculate formula: Number of 'Lhum' = the width of the desired patterns multiply with warp and divide with the number of warp within 1 'Lhum'

2.5 Patterning: This process must be done before colouring. First, tie the patterns that do not require colours on them tightly with plastic ropes.

2.6 'Kae-Mhee' (untying the plastic ropes) is the process where the plastic ropes which have been tied up to make the patterns are removed using scissors to cut each rope knot individually.

2.7 'Pun-Lhod' (spinning the yarn into the bobbin)

### **Weaving into a Creative Work Piece**

Weaving could begin once the warp and weft were prepared. The tied and dyed weft was used to weave with the warp. While weaving, the work piece was continuously analysed and the outcomes were noted and summarised (Figure 15-35).

For example,



From colour painting sketch part 1; Woven image Part 1



Figure 15: Sketching



Figure 16: Woven Image



Figure 17: Tying and Dyeing



Figure 18: Untying All the Plastic Ropes



Figure 19: Spinning the Yarn into Bobbins



Figure 20: Weaving the First Image

From colour painting sketch part 1; Woven image Part 2



Figure 21: Sketching



Figure 22: Woven Image



Figure 23: Tying



Figure 24: Dyeing



Figure 25: Untying All the Plastic Ropes



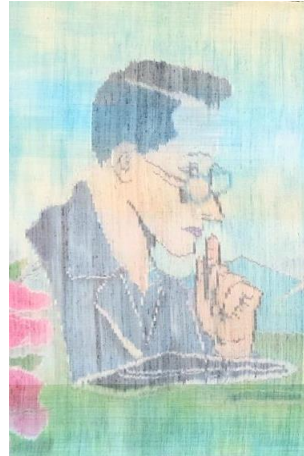
Figure 26: Weaving



From colour painting sketch part 1; Woven image Part 3



**Figure 27:** Sketching



**Figure 28:** Woven Image



**Figure 29:** Tying and Dyeing  
Starting from Light to  
Darker Colours



**Figure 30:** Weaving

### From colour painting sketch part 1: Woven image Part 4



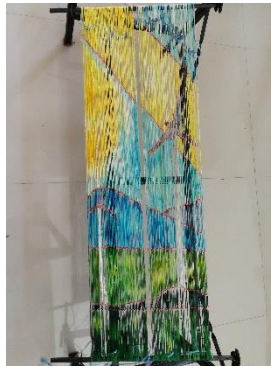
**Figure 31: Sketching**



**Figure 32: Woven Image**



**Figure 33**



**Figure 34**



**Figure 35**

Figure 33-35: Dyeing and Untying All the Plastic Ropes Step before Weaving Together



**Figure 36: From Colour Painting Sketch Part 1 (Figure 9) to Woven Image (6.5 metres length)**

### Result and Discussion

This woven image art is a creative work piece deriving from the contemporary Mudmee weaving approach. It applies a traditional weaving process, integrating a contemporary touch. This process was inspired by mural

paintings from the past along with the cloth that was used to write stories of the Buddha or Ramayana (Palungjit.org, 2005). Therefore, this led to the idea of presenting His Majesty King Bhumibol Adulyadej's royal duties. It is a woven image that is 20 metres long and 1 metre wide. The image was woven using the overlapping Mudmee (Double Ikat) technique instead of the standard mural painting. It is classified as 'Woven Image Art'.

During this creative work, an error was found during the weaving regarding the motif elaboration on yarn stalks. Several methods were used to resolve this including determining the number of yarn stalks in each pattern section. This refers to the different yarn allocations per stalk. The method was used initially, but there was difficulty in dividing the pattern sections as the divisions became too wide. In addition, having to remember each yarn for each pattern caused confusion during the picking step. Therefore, the yarn motif elaboration was used at the same interval for the whole fabric. It set 1 yarn with 50 stalks and each stalk containing 6 silk fibres. The width of each pattern is 20–25 centimetres (depending on the size of the outer-shell yarn for which each stalk also has different thicknesses). The creation of this work piece used a total of 101 yarns for the total 20 metres length.

## **Conclusion**

The researcher is very satisfied with this art creation (Textile Art) using the overlapping Mudmee (Double Ikat) technique. The outcome is the 20 metres long, 1-metre-wide woven art image on fabric. It is similar to other mural painting portraying His Majesty King Bhumibol Adulyadej's (King Rama 9 of the Chakri Dynasty) royal duties.

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