KNOWLEDGE MANAGEMENT OF LOCAL WISDOM IN CAP PRINTING
BATIK CLOTH HANDICRAFT IN NARATHIWAS, THAILAND

Suporn Soonthornnon, and Pitcharporn Soonthornnon
Yala Rajabhat University Thailand, Prince of Songkla University Thailand
suporn.s@yru.ac.th; pitchapornsoon@gmail.com

Abstract
The study focuses on the knowledge management as local wisdom of cap printing batik cloth handicraft in the province. This has certain objectives which are needed to (1) study and to collect both development and processes in producing printing pattern batik in Lumphu, Muang Narathiwas, (2) to learn the methods used in transforming printing pattern batik knowledge in Lumphu, Muang, Narathiwas, and (3) to enable the management of painting batik pattern as a long life knowledge then expose and distribute to members and (4) to investigate stages in order to develop and transmit this local wisdom on printing pattern batik for its own betterment to others and these include students from Art Programme and batik producer members. For the purpose of data collection of this present qualitative research, distributing questionnaires, observing, participating in conducting research, recording conversation, and descriptive data analyzing have been used. And the researchers have collected all necessary and related information from 16 participants and they have 1 community leader, 6 batik producers and 10 students.

The results revealed that painting pattern batik has been known for more than 40 years in Thailand. It was found out that printing pattern batik was brought in Lumpoo, Mung, Narathiwas in 28 years by Mr.Waepa Binjemusaw. He set up his factory, which located near the fire station within Narathiwas Municipality. There were only 10 workers at that time. Then his younger brother who is Mr. Weemaso Waedao’ came and helped him in mixing colours as well as painting pattern designing in his factory. Later, his younger brother became the owner of MS Batik factory. There was also a painting pattern batik factory in Sungaikolok that started by Malaysians under the factory named ‘Ambas Qmar’ and he taught his workers from Thailand who went and worked for him techniques in painting and colour mixing dye. Meanwhile, they went to study the techniques of making a good quality print block from experts in Kotabaharu in Malaysia. Whereas they remained the produce processes and yet they just modified a bit in colour mixing dye techniques and pattern designing.

The materials used in making batik are 1) Fabrics: the most widely used to make batik is cotton. This is because it is wax writing. The most of the factory in Lumphu used cotton as a result of suits to make sarong and clothes, 2) Colour blocking: there are wax, paraffin wax, raisin (turpentine), tallow and vegetable oil, 3) Batik Dyes: commonly used Reactive Dyes and Naphthol Dyes.

Keywords: cap printing, batik cloth handicraft, sarong wear

INTRODUCTION

The history of Batik production in Narathiwat province became popular in Southeast Asia a long time ago. Batik reflects the tastes, lifestyle, well-being and local culture of the people in South East Asia. Sarong is one of the Batik Techniques that has been commonly used by the Javanese in Indonesia and later on passed into Malaysia and into the South of Thailand. Later, it was developed into a local symbol, such as sarong, and Batik local cloth. Batik became the most popular production in Narathiwat which still preserve the format of Production plan like in the past. A Batik fabric factory is located in the city district where it shares the border with Malaysia. The production of Batik fabric of Narathiwat province is patterned just like Batik or cloth dolls produced in Malaysia. The pattern of Batik is similar to Batik in Malaysia.

Research Objectives
1. Study and collect both development and processes in producing Batik printing pattern in Lumphu, Muang and Pase Mat, Su-ngai Kolok Distric Narathiwas.
2. Learn the methods used in transforming Batik printing pattern Knowledge in Lumphu,Muang and Pase Mat, Su-ngai Kolok Distric Narathiwas,
3. Enable to manage Batik painting pattern as a long life knowledge then expose and distribute to community members and
Investigate stages in order to develop and transmit this local wisdom on Batik printing pattern for its own betterment to others and these include students from Art Programme and Batik producers.

METHOD

This research is a qualitative research. It is based on an in-depth interview, focus on group discussions, and PAR activities (Participation Action Research). The researchers found that there are Batik production sites in Narathiwat province, in two districts, Muang District and Suwannokok District.

2. Research tools:
2.1 Structured interview

Main Question Design, Follow Up Question, Probe Question and Resources

| Table 1. Question : The development and production of batik fabric |
|------------------------|------------------|---------------------|------------------|
| Topic                  | Main Question    | Follow up Question     | Probe Question          |
| 1. Development and Manufacturing process. | 1.1 How is the production process developed? | 1.1.1 How was the development process in the past? | 1.1.1.1 How is the product developed currently? |
|                        | 1.2 How is the product processed? | 1.2.1 What was the process of production in the past? | 1.2.1.1 What is the current production process? |
|                        |                   | 1.2.2 How was it molded and Manufactured in the past? | 1.2.2.1 How are the current fabric produced? |
|                        |                   | 1.2.3 How was the design printed in the past? | 1.2.3.1 How does the current print design work? |
|                        |                   | 1.2.4 What was the method used in Color mixing formula, Coloring or dyeing In the past do? | 1.2.3.2 Who designs? |

| Table 2. Question : How to transfer local wisdom to produce Batik fabric? |
|------------------------|------------------|---------------------|------------------|
| Topic                  | Main Question    | Follow up Question     | Probe Question          |
| 2. How to convey the batik printing process. | 2.1 What is the process of conveying Batik fabric from past to present? | 2.1.1 How was the Batik process conveyed from the past to the present? | 2.1.1.1 Who is the recipient of the knowledge and why? |
|                        |                   | 2.1.2 What are the specialities of the transferred knowledge and to whom and how? | 2.1.1.2 What are the specialities of the transferred knowledge and to whom and how? |
|                        |                   | 2.1.3 Problems and Obstacles in Transmission | 2.1.1.3 Problems and Obstacles in Transmission |
|                        |                   | 2.1.4 How to develop the current transmission of knowledge? | 2.1.1.4 How to develop the current transmission of knowledge? |
|                        |                   | 2.1.2.1 How to convey the specific techniques to others and how? | 2.1.2.1 How to convey the specific techniques to others and how? |
Table 3. Question: How is the process of Knowledge management of Local wisdom on How to produce Batik for professional career for students, producers and interested parties?

<table>
<thead>
<tr>
<th>Topic</th>
<th>Main Question</th>
<th>Follow up Question</th>
<th>Probe Question</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Knowledge Management</td>
<td>3.1 How is the knowledge on the production of Batik cap obtained and inherited?</td>
<td>3.1.1 What is the result of the Batik knowledge managed and transmitted to the Community and Entrepreneurs?</td>
<td>1. owner</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Manufacturers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Documents and Research</td>
</tr>
</tbody>
</table>

Table 4. Question : What is the method of Creating and disseminating knowledge of local wisdom, producing batik fabric.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Main Question</th>
<th>Follow up Question</th>
<th>Probe Question</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Creating and disseminating information</td>
<td>4.1 How is the data knowledge and information collected and disseminated?</td>
<td>4.1.1 How is the data collected?</td>
<td>4.1.1.1 What is the result?</td>
<td>1. Business Owner</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2. Manufacturers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3. Documents and Research</td>
</tr>
</tbody>
</table>

2.2. Observation
2.3. Group conservation recording

3. Research samples
3.1. One community leader each of all the districts in Lumpoo Mung,Narathiwat
3.2. Six manufacturers
3.3. Ten person of workshop attendee

4. Data collection
Data collection using in-depth interview method and based on participant observation and related documentation.

5. Data analysis
Data analysis uses descriptive content analysis.

FINDINGS
1. The development and production of Batik handicrafts Narathiwat
   1.1 Batik in Thailand has been around for more than 52 years. It began in Narathiwat where it was produced and printed in the district. Mr.Waapa Binjamusa was the first person to open Batik production in 1974. At that time, he established a factory next to the municipal train station. Approximately 10 years later, it was relocated to Ban Ba ho, Tambon Lam Phu, Mueang, Narathiwat Province. The production of Batik here at the beginning had the same procedure as in Malaysia. Materials and equipment were imported from Malaysia. In Malaysia, the production system and processes takes time to be practiced and learned. About 3 years later, it was re-opened in Thailand. It is believed that people in the southern part of the country are famous for sarong local Batik production. At the start of the venture, they partnered with friends. Later, they became independent. There are about 10 workers, most of whom are unemployed and relatives. The younger brother, Vassa Vida, came to the aid of the color scheme, which was later on inherited from his brother Valamo Vada, who oversaw the Batik factory.
   1.2 Batik fabric manufacturing factory has been in the district of Su-ngai Kok. Originally operated by Malaysians who came and got married to Thais and the production techniques from the city of Kota Bharu. In Malaysia, Mr. Romyoyo received the coloring, dyeing from the Malaysian technician. At the Amar Omar Plant The Batik dyed for 3 years later changed the pattern to print flower Batik design. He also learned about making Batik from Kasem Commercial Factory.
1.3 The production process of Batik fabric from the beginning to the present using a local traditional technique. There have been some few changes. For example, the dye mix design patterns to improve the quality.

1.4 Material used in Batik production. The details are as follows:
1. Cloth; use cotton because it can print candles or write candles. And dye it without having to wash it first. The fibers of the cotton are porous. It can absorb well. Silk has the structure of light fibers, lightweight, and soft, suitable for Batik, which requires nourishment. During dyeing process. the fabric is bright. Batik Fabrication Factory use Cotton because of its Batik-like print style for making sarongs. And cloth
2. Paraffin wax (paraffin wax), turpentine (Rasin), vegetable oil
3. Batik dyes. The first dye reactive dyes (reactive dyes) are suitable for dyeing cold. And the most economical of Batik. Due to the absorption in the fabric which. Can be mixed as soft as you want. The second dye is Napthon Dyes. It is a powder that dissolves in water with alkali. This color is suitable for Batik dyeing, dark and long lasting.

1.5 Equipment (Equipment) in the production of Batik.
1. Mold. The molds used in printing are two forms of molds.
2. Table for candles It is a modest desk. Easy to hold candle holder with sponge for warm water. The print board is approximately 90 cm long, 120 cm long and 90 cm high. The back is about 70 cm high, which is sloping. For convenient printing
3. A candle stove is a device to heat a candle to dissolve in an appropriate temperature. Gas stove is used because of good temperature control.
4. Candle pan A flat pan. The height of the edge is about 2.5 inches. The width depends on the size of the mold. To put the candle should not exceed 1 centimeter.
5. Cone candle is used as a waterproof candle, while flickering candles stick to the right amount of mold.
6. The dye rails. Generally, the width of the cliff to use the dye.
7. Wash pond should have 3-4 ponds to wash the fabric after dying.
8. Stove and Boiler There are 2 large sets for boiling cloth set 1 to boil cloth to remove the candles from the cloth. Set 2 to boil cloth.

1.6 Batik layout design
1. Pattern design came first before the popular Indonesian pattern. The flower is full of dense and popular animal pattern. Later, it was changed to a flower pattern mixed with Thai and Malaysian Batik print designs, the design is less resolution. In the Batik factory, there is no specialized design department. Business owners will study the pattern from other places and then adapt to the situation and popularity.
2. The type of stripes used in Batik printing has been found that the designs are not very complicated. Because it must be molded. And mold making is also done by hand. Most of the designs used in the factory are as follows: 1) Imitation from nature such as flower pattern, animal pattern. 2) Geometric patterns, such as triangle shaped rectangular shapes, 3) Freeform patterns.
3. The composition of the pattern is that the Batik printing is generally popular composition or layout as follows. 1) The edge pattern is printed on the edges of the fabric. By printing to continuous continuity. Edge design will be found. Floral or vase pattern and geometric pattern. The main purpose is to print the edges to indicate the extent of the fabric. 2) Stripes are continuous and can be printed like a border. The main purpose of the stripe. Designed for printing on men’s clothing, men’s shirts or gauze. 3) Flower pattern is a distinctive pattern.

1.7 Production Batik production process becomes printed. There are steps as follows.
Step 1 Check the fabric. Make sure the fabric is flat.
Step 2 Put the fabric on the table. Try to chase the fabric. In order not to mess up the edges.
Step 3 Bring the first piece of dip into the wok. Leave it for a while, let the hot mold and let the candles stick to the mold. Flick a few times, then print on the prepared cloth. Mostly if the sarong or cloth will be popular before. The area of the flower.

Step 4 Take a second mold, a mold or a mold, dipped in a wok. Then flick off the candle 2-3 times and then print on the fabric. Trying to print the pattern can be seamlessly combined. Or may print a contact. The whole.

Step 5 Paint the flowers. The drainage may be 3-4 colors for the flowers have different colors.

Step 6 Print out the molds. The third piece is a mold for printing off the color pattern.

Step 7 of dyeing the whole piece. Mostly it is light staining. Then add the intensity in the next step. This dye will use reactive dyes.

Step 8 to wash water and then dry air.

Step 9 Apply the fabric to the 4th mold and store the dye first.

Step 10 Make a second dye using Napthol Dyes to make the dye stick to the areas that are not candles.

Step 11 Put the fabric to dry air.

Step 12 Printing with a piece of mold 5 to store more details or to close the section where the original dyed color remains. Then, to dye 3 if you want to dye several layers and then wash it.

Step 13 Bring to the pond to mix the caustic soda. To make candles bite into cracks. Wash the fabric to clean. Then yellow to dye to make the candle to crack the color can penetrate the candles are darker.

Step 14 Take the towel to make the candle out of the cloth.

Step 15 to wash in a well. Then bring to dry.

Step 16 Bring the Batik to the fold. Import rolling machine Plastic packing

2. The method of conveying knowledge of Batik fabric production of Lamphu district, Muang district, Narathiwat province.

2.1 Mr. Waapa Binjamusa who was transferred from relatives in Malaysia. The story of the color mixer and practice it manually. Later on, the Batik production started in Thailand. The knowledge of Batik techniques taught to the staff through demonstration and the staff had to practice.

2.2 Mr. Waamaso waadao, the brother to Mr. Waapa Binjamusa, has been conveyed by his brother in color mixing and printing. The demonstration shows how to mix colors. He went to work at the Samaritan Factory. In Malaysia, he learned more on Batik and experience to understand the production process more than ever. He took time to learn the color mixing formula. There was no formal training. Later, the production of Batik printing knowledge was transferred to new employees. By the way, it is recommended to practice by yourself and have a mentor who is the same staff who teaches how to produce. The introduction of oral transmission. Demonstration and let the labors experiment with simple production techniques. color mixing technique, it was then conveyed to relatives who can mix color and color. He is expert in dyeing process. In addition, the MS Batik factory is also an internship source for students from many institutions. With the demonstration and the print preview, quality will be checked.

2.3 Mr. Yalee Ummudee, a mold maker. Received knowledge transfer from molding shop in Kota Bharu. Malaysia By learning and practicing for about 1 year, I have not passed on the knowledge to anyone. Children also study but relatives are not interested. There are only government agencies like the provincial industry. Invited to demo 2-3 days at a time.

2.4 Mr. Romalee Uso received the knowledge of Batik production from working as a dye worker for about 3 years and printed 7 years for about 10 years. Have 2-3 followers and transfer knowledge to their followers by demonstration. And practiced by real re-breathing for about 1 year can be dyed and printed. The training of new employees will be self-taught for about a week. The print will give the relatives practice and broadcast. The color combination will be transmitted to the children themselves.
2.5. Mr. Baya Bindalo learned how to make molds in Malaysia as well. Then he remembered to return to practice, it takes about 2 years to be able to do. The transfer of knowledge is conveyed to the son.

3. Knowledge management on Batik fabrication to become a sustainable career for Batik group members.

3.1. Knowledge Management of Lam Phuong Sub-district Administrative Organization. There is no project to assist the Batik Group whether it is training related to the management of the training only interested in this career.

3.2. Knowledge management, local wisdom, handicrafts, Batik production became printed. Lam Phuong is a Batik production area. The village of Baho Group 11 has a complete Batik factory. Knowledge related to Batik fabric is stored in an individual. No publication or collection to disseminate knowledge to the community. Knowledge transfer from one generation to the next. By telling and training only people like father to child from brother to sister or grandchild. Some of the older generations will be broadcasted to the younger generation. The factory is mostly family-owned. The owner is the sole operator.

3.3. The system can be observed. They are divided into groups based on the nature of the main tasks: 1) printing group 2) coloring groups will be sent to the community to do at home; 3) dyeing groups; 4) boiling and drying groups; 5) folding, folding and packing;

3.4. Knowledge management of Batik fabric factories has been found to be informal. The individual knowledge skills of each person. Each group comes from experience in the workplace, such as knowledge transfer through observation, discussion, practical training. Especially the new employees. The elder will be the one who transfers the knowledge from the practice. The systematic collection and not written as a manual book, but he can convey and share knowledge by observation and imitation from generation to generation. Or from people who work before the new job. Knowledge development New knowledge In the factory, the methods are quite low. Learning or creating new patterns, patterns or techniques. Has not changed so much. As such, there may be restrictions on how many factories can not handle the production system. Because the layout pattern is fine, depending on the order is important. The Batik design by the manufacturer and the customer choose it difficult. The pattern is usually the same or the pattern in the market. Then put that knowledge into the factory.

The researcher gave the knowledge of Batik cloth production to the people in Yala Rajabhat University. By the owner of the knowledge transfer. The first step is to print out a piece of work. It appears that the trainees are interested. Business owners can broadcast it in a good way.

4. Creation, development and dissemination of the local wisdom database.

This is for the public Fine Arts Program and a member of Batik fabric manufacturer. The building for information dissemination by the Lam Phuong Provincial Organization has been built a building for a career information center to collect history and background as well as production process. There is a website of Thai parish which publishes some details about Batik as appropriate. The publisher has published the logo attached to the product. It is known by others. The detailed information is not kept in writing, no brochures, nor own a website.

REFERENCES