

## **Thai Silk Pattern: Conservation and Manufacturing Development to Create Added Value in the Province of Khon Kaen**

**Kesini Sawatdi**

The Faculty of Cultural Science, Mahasarakham University, Maha Sarakham, Thailand 44000  
Email: kessawatdi@gmail.com  
Tel:/Fax: 66-43-742827

**Dr. Boonsom Yodmalee**

The Faculty of Cultural Science, Mahasarakham University, Maha Sarakham, Thailand 44000  
Tel:/Fax: 66-43-742827

**Dr. Kosit Paengsoi**

The Faculty of Cultural Science, Mahasarakham University, Maha Sarakham, Thailand 44000  
Tel:/Fax: 66-43-742827

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### **Abstract**

Silk patterns are works of art that resembles the valuable and unique ethnic culture that is most important to the community. The history and development of silk patterns in the province of Khon Kaen can be divided into 2 periods, before and after the year 1976. During these periods there were many changes in the manufacturing of silk textiles. The origin of classical silk patterns came from direct modeling of plants, animals and nature. Contemporary silk patterns are modeled after mediums such as television, multimedia, publications and from client requests. The manufacturing tools have also been greatly improved from wooden tools to tools made from metals and tools reinforce with steel. Electric motors have also been utilized in increasing the efficiency in the transformation of silk such as in process of dyeing and spooling silk threads. Traditional materials in silk textile production utilized traditional home grown and produced silk threads while in modern times, the silk comes from factories and purchased in spools. Locally produced silk threads are still produced but in lesser quantity because natural pigments and threads are limited in color. Modern silk threads produced from factories come in many colors and sizes to choose from. Traditional designs and patterns of silk textiles had to be memorized and were passed down orally while contemporary patterns can be massed produced through patterns embedded in graph paper and computer graphic designs. The patterns of silk textiles have greatly improved after 1976 where many

efforts were implemented to develop added value and broader market for silk textile products. The conservation and development of silk textile patterns to create added value in Khon Kaen can be achieved through innovation but must adhere and be modeled after traditional background. The developed textiles must conform to tradition but also meet the demands of clients. Consideration must also be emphasized in product diversity so that there is distinction and uniqueness from other producers.

**Keywords:** Silk, Textile, Mat-mee, Khon Kaen, Conservation, Development

## **1. Introduction**

*Isan* (northeast Thailand) textiles are cultural art treasures that reveal the uniqueness and livelihood of Thai's from past to present which is represented through the intricate woven patterns, colors and diverse techniques in the production which is unique to each community (Chantachon, 2010). Most established producers have ethnic origins from outside of Thailand and have relocated to the northeast bringing their cultural heritage with them in which they continue to pass down to the next generation. This is a true fact for all regions in Thailand where many silk textile producers have ancestral roots from abroad and have continued their tradition and indigenous knowledge in making textile fabrics. It is very difficult today to distinguish the difference among numerous textile patterns in different communities but distinguishing features still exists and is unique to each ethnic background (Silpakorn, 1999). The art and skill of making silk textiles has been widely popular since historic times. The central government has given great interest and provided the support of silk worm rearing since 1902 and have expanded public support in promoting the quality of silk textiles to replace imported Japanese silk. The initial project in providing government support that started in 1902 was discontinued in 1907 because local Thai silk worm farms were devastated by an agricultural epidemic that occurred throughout the country. Even though public support was initially inconsistent, but local communities continued to produce silk textiles according to their available resources and the profits provided an alternative source of income to many individuals and households. Production purposes was initially limited for use within the family and trade within the community, while commercial ventures only started when there was an excess of silk textiles left (Leesuwan, 1999).

Thai silk is the reigning queen among fabrics available to consumers today. Little was known about Thai silk among foreigners in the past because the fabric was not even popular with the majority of local citizens which viewed that silk was a reserved textile only for high ranking and well off individuals. It was only after war world 2 that Thai silk was globally popularized by Jim Thompson who was an American entrepreneur who brought Thai silk to global attention. The popularity of Thai silk was also supported by the royal patronage of Her Majesty Queen Sirikit of Thailand who supported the establishment of Royal Folk Arts and Crafts Center to support Thai indigenous knowledge.

Silk threads come from silk worms and are reared by communities throughout Thailand and the mat-mee silk pattern is a unique traditional dyed silk from northeast Thailand. The silk patterns represents the cultural identity of northeast Thai communities and is only worn during special occasions such as traditional festivities and weddings. Isan communities revere *mat-mee* silk textiles as a valuable item in which they take pride and the textile is treasured

by their owners. It is also a status symbol revealing the nature and wealth of the family. The high psychological value placed on *mat-mee* silk has contributed to the continued inheritance among individuals and families in Isan where elders maintain their indigenous heritage and skills to be passed on to younger generations (Tiamsak, 1999). The research and development of silk textiles and *mat-mee* patterns continues to be explored and it is the purpose of this essay to examine the possibilities and methods necessary to create added value to *mat-mee* silk patterns in the province of Khon Kaen.

## 2. Research Area and Methodology

This research is a qualitative research with the aim to 1) Study the history and development of Thai silk patterns in the province of Khon Kaen and 2) Study the conservation and development of manufacturing of silk patterns to create added value in the province of Khon Kaen. The research period was from March 2012 to June 2013. Research tools included observation forms, interview forms, workgroup discussion forms and workshop training. Document analysis was performed by examining research papers, articles and publications related to silk textiles, conservation, creating added value and from the data collected from field research through surveys, observations, interviews and work discussions. The sampling group of individuals included 22 key informants, 32 casual informants and 16 general informants. The individuals from the sampling group also included individuals from 6 silk textile producers in Khon Kaen province from the district of Chonnabot, Mancha Khiri, Ban Phai and Phra Yuen. The research data was analyzed by using data triangulation method and the research results were presented by descriptive analysis.

## 3. Research Results and Discussion

### 3.1 *Mat-mee* Silk Textile

The origin of the *mat-mee* silk textile pattern in Khon Kaen is still under debate and there is no conclusive historical evidence that can pinpoint to the original creator or creators of the unique pattern. What is universally accepted is that the *mat-mee* pattern had been passed down through many generations of weavers through oral tradition and is the indigenous knowledge, culture and heritage of Isan communities (Kaeopijit, 2008).

Khon Kaen is a province in northeast Thailand and is currently the most important source of commercially produced silk textiles. There are many production centers throughout Khon Kaen, but the most prominent is at Chonnabot district and is known to be the most famous source of silk textiles (Yawangpol, 2005). The silk textiles produced at Chonnabot is usually the *mat-mee* silk textile or *mat-mee* pattern which is a unique product produced with processes inherited through many generations. The most conclusive evidence that Khon Kaen is the most important source for silk textiles are the numerous regional and national awards given to silk textile producers in Khon Kaen. The history and development of silk patterns in the province of Khon Kaen can be divided into 2 periods, before and after 1976. During these periods there were many changes in the manufacturing of silk textiles. The origin of classical silk patterns came from direct modeling of plants, animals and nature while contemporary silk patterns are modeled after mediums such as television, multimedia, media publications and from client orders. The manufacturing tools have also been greatly improved from wooden tools to tools made from metals or tools reinforced with steel. Electric motors have

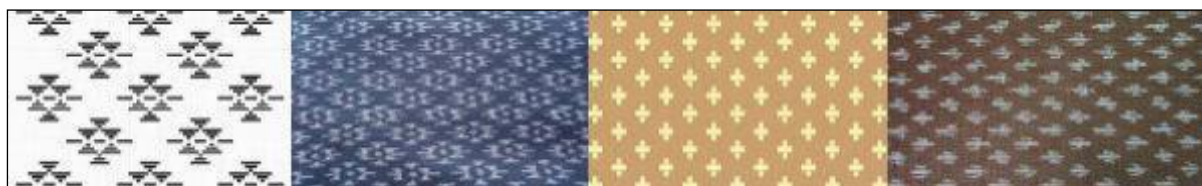
also been utilized in increasing efficiency in transforming silk such as dyeing and spooling silk threads. Traditional materials in silk textile production utilized traditional home grown silk threads while in modern times the threads are purchased in spools from factories. Locally produced silk thread productions have been in decline because natural pigments and consistency of the threads were limited. Modern silk threads produced from factories come in many colors and standard sizes to choose from. Traditional silk designs and patterns had to be memorized and were passed down orally while contemporary patterns can be mass produced through patterns embedded in graph paper and computer graphic designs. The patterns of silk textiles have greatly improved after 1976 where many efforts were implemented to develop added value and support for the market for silk textiles products.

The patterns of silk textiles in Khon Kaen is diverse and has many names which is independently named by their producers in each community. Most textiles are produced as commercial fabrics and only a few process their fabrics into useful items such as clothing and handbags. The number of fabric only producers outnumber producers that extend their product lines to include souvenirs and other useful products. The producers that transform silk textiles usually make silk garments as their primary product because they realize that the sale of fabrics is seasonal, territorial and limited to consumers who want to make their own garments or buy them as gifts. Few producers realize that by offering a diverse selection of products will greatly contribute to increased sales and profits. The findings were consistent with research studies done by the Government Public Relations Department of Khon Kaen where the number of silk souvenir and garment producers in Khon Kaen was still very limited. This is despite the fact that the office has provided and supported the venture with funding but have received only minimal response from local producers. Local producers that were involved in the project only followed guidelines and supported the project only when there was funding. When the public funds were exhausted, the producers simply stop making the products recommended for commercial markets such as silk vases, silk flowers and silk lamps. Traditional silk textile patterns that were passed down through generations of family weavers and modeled after their environment and surroundings is consistent with Lotkhamwatthana, (2009) and Bourapha (2013) where most ethnic textile patterns, including the *mat-mee* patterns were influenced by the natural surroundings and environment of their community. The promotion of commercially produced silk textiles in 1976 introduced innovations and incorporated new patterns and styles to the traditional *mat-mee* patterns. Traditional outlines were still fundamental but they were experimented with different weaving techniques and a larger variety of colors to create new patterns. Many of these innovations were inspired by what producers and weavers saw on television, fashion magazines, newspapers and also from suggestions from clients and contractors.

One distinguished pattern that has emerged and has become very popular among locals is called *lai sawanbiang* which was influenced by a very popular television drama of the same name. Sometimes the *mat-mee* patterns were named after the client who ordered the design such as *lady Louis*. The design of textile patterns after 1976 was contributed by using imaginative techniques, trial and error. Many designs were just test patterns and were not documented but were kept in storage for further consideration and development. This is in contrast with contemporary designers today who usually use graph paper and computer assisted drawing to help them design, modify and store their patterns and techniques. The adaptation of technology and computer assisted tools is consistent with Boonak (1997)

where newer generations of textile producers have increased their reliance on CAD software and graph paper which were more effective than memorizing the patterns and techniques. Even though graph paper had already been widely used by many weavers before, but the ratio of graph paper to actual silk threads was not exactly proportional. CAD software further increased the effectiveness of production where the final product closely matched their designs (Figure 1).

Figure 1. Computer Aided Design software applied in designing *mat-mee* silk textiles.



### 3.2 Conservation and Development of Silk Textile Patterns

The current market for silk textile products offers consumers a variety of designs and patterns. Most of the items on sale are usually textile fabrics which are dyed with colorful synthetic pigments. Natural dye silk textiles is usually displayed in minimal amounts and in some stores can only be ordered. The current market trend has shifted back to favoring organic and natural pigments. The shift in consumer trend back to classical styles has provided producers with an opportunity to extend their product lines. Consumer trends are also in favor of traditionally prepared foods and snacks which they purchase for their own personal consumption and as gifts for relatives and friends. These added requirements mean that traditional and innovative silk textile patterns can provide added value and can create an alternative source of income for local craftsmen and communities. The handicrafts and silk textiles are sold to local and international tourists. The market for hand made products is still healthy where handcrafted silk textile products are still valued. The *mat-mee* silk textile is an identity of the province of Khon Kaen in which the Ministry of Commerce has designated and listed as a intellectual cultural property of the local community. It is therefore prudent to continue to develop and market *a mat-mee product that is based on tradition but more in variety, innovative features and added value.*

Silk textile test products are created by transforming traditional textiles into useful consumer items such as handbags, wallets and clothing. Making silk textile test products utilize the same manufacturing process which include design, weaving and transforming the textile into final items (Figure 2). The patterns that are used in test products rely on taking basic textile patterns, the unique patterns of each producer and integrate them with colors and decorations such as gold threads and pattern enlargements. The suggestive measures were put into production at all 6 textile producers which successfully produced products that consumers had never seen before.

Figure 2. Silk textile test products in the province of Khon Kaen.



The process of testing the newly produced textile products was undertaken by arranging a workshop which included textile specialist and producers. The results of the workshop concluded enlarging the pattern of the silk textile provided producers with greater flexibility in making more innovative products while preserving traditional value. The products that were introduced in the workshop were distinct from other local producers, created added value, is commercially viable and will also preserve the indigenous knowledge of their community. The products produced should initially be displayed and sold when the Ministry of Commerce holds their annual display of locally produced handicrafts. The events are scheduled annually but will contain many venues and relocated to many locations throughout the country.

Many *mat-mee* producers still used traditional tools but have developed and improved their tools such as bracing their wooden tools with metal or replaced wooden tools with metal all together. Electric motors are now very common among weavers and have replaced traditional hand cranked spindles. This is consistent with Chœikiwong et al (2011), where development and innovations are needed for the conservation and survival of culture so that it can be inherited by future generations. The innovative features added or modified to tradition must be compatible and be useful to community members.

Pigments have also changed progressively from 1976 where before that, silk threads were traditionally dyed in black or navy blue. Traditional dyed silk threads were all grouped together and processed in batches providing monotone colors. Pigments in the past consisted of only natural dyes in shades of black, navy blue, green, yellow and red. Coloring the dyed threads relied on traditional technique of simply dabbing the threads with the colors available. The problem that traditional weavers faced was that the natural dyes easily wore off and the colors were limited. Modern weavers have more flexibility when it comes to choosing colors due to the popularity of synthetic pigments which comes in many colors and shades. The synthetic dyes were easy to use and were fast drying. Synthetic pigments were also very resistant to wash and daily use. Natural dyes were popular from 1958 to 1975. The use of synthetic pigments after 1976 greatly diversified silk textiles which expanded the industry due to increased demand and satisfaction of customers and clients. This is consistent with Barsky and Lahagh, (1992) where customer satisfaction is a direct result of the quality and value of their investment where customers choose products that are up to their expectations and quality standards. The satisfaction of clients also comes from the fact that there are still many clients who choose textiles that they believe are unique and ethnic in origin (Thanawannakig, 1997).

The *mat-mee* production groups studied in this research have been established on average for about 39 years. Every manager or leader of the *mat-mee* groups all started out by learning the same basic patterns and have steadily increased their production and membership. Even though every group has the same basic patterns and utilize the same designs in their production line, but the manager or leader in each group makes sure that there must be at least 1 pattern and design that is unique to their organization (Figure 3). This is consistent with Tangsakul (2004) where the leader of the organization of textile groups plays a pivotal role in the success of the group where the success relies on the chairman or chairwomen, responsibility of the members and uniqueness of their product. Groups that have failed in their production lack a clear line of responsibility within their organization and lack a structural management which leads to the lack of creativity and diversity in their products.

Figure 3. Unique patterns among silk textile producers in the province of Khon Kaen.



The conservation and development of silk textile patterns to create added value in Khon Kaen can be achieved through innovation but must adhere and be modeled after the groups traditional background. The developed textiles must conform to tradition but also meet the demands of clients. Consideration must also be emphasized in product diversity so that there is distinction and uniqueness from other producers. Weaving silk textiles is a very important process and determines relationships within the community which is an addition to the community's social and cultural capital (Hawanon and Rattanarotsakun, 2006). The tools used in silk production still have the same traditional functions but have been improved and been modified with technology. The need to make innovations is required and is a method of conservation where unreliable tools and materials are replaced with more efficient materials and processes (Chunkao 1993). These modifications provided producers with efficiency, increased production, time savings and reduced the resources that were traditionally needed.

Most of the silk threads used in production are starting to shift back to locally produced threads and is mixed with purchased threads from factories according to client orders. Natural dyes still continue to be used but many producers now prefer synthetic pigments, but the deciding factor depends on the clients orders. The integration of traditional raw materials with synthetics affiliates in lowering the amount of time spent on production but sometimes traditional and natural materials are chosen due to the fact that some clients prefer organic and chemical free materials. This is reflected in traditional silk textiles that use traditional methods and natural substances (Holland, C. and Others, 2007). The process of transforming silk textiles into products such as silk handbags and wallets (Figure 4) is an important factor that contributes to successful conservation and development of silk textile production.

Figure 4. Innovative products made from traditional *mat-mee* silk textiles.



The added value will contribute commercially to the local community, to the traditional patterns and to the designers and owners of the establishment. Adding value to traditional formats has proven to be an effective commercial practice and consistent with Chirochaphan, et al (2008) and with commercial experts who have emphasized that innovative products based on tradition can provide successful commercial benefits and is an alternative to casual products which lack distinctive features. Innovative measures such as enlarging the patterns and making useful items from the textile is an inventive conservation method (Wisaratwait, 2009). Advertisements of the historical origin of the indigenous knowledge used in making the products should also be utilized and will also provide added value to the products. Creating silk textile products that are a direct replica of traditional models is still mandatory and is a direct method of cultural conservation, but creating added value by adding innovations can greatly increase conservation efforts. This is consistent with Pisaisawat, (2009) in which consumers at first will embrace traditional items, but the passage of time alters the perception of buyers. People in general are always looking for something new and fashionable and it is the duty of textile producers to cater to consumer needs. This can be achieved through the production of traditional and innovative products based on the original characteristics but added with new features, functions and also technology such as e-commerce (Wasantadilok, 2003). By incorporating new ideas, technology and marketing into traditional designs will also enable producers to sell the items at a higher price (Desai, Preyas S., 2000)

#### 4. Conclusion

Silk patterns are works of art that resembles the valuable and unique ethnic culture that reflects the history and ideology of the cultural capital that is most important to the community. The conservation and development of silk patterns to enhance commercial value in the province of Khon Kaen should be undertaken through the conservation of traditional production methods such as the *mat-mee* technique, natural pigments, synthetic pigments, decorative colors, innovative patterns and technology. Gold imprints on the patterns should be utilized in creating unique patterns. Manufacturing should continue to use human labor while technology should be used to facilitate in labor intensive tasks. Dyes should consist of both natural and synthetics. The development of creating added value to Thai silk patterns in the province of Khon Kaen relies on the factors of; Utilizing traditional manufacturing techniques of the community, adaptation of traditional community patterns in the development of contemporary designs, traditional beliefs of the community, community leaders, effective management, high quality raw materials, capital, pattern designers and ethical values of the manufacturer to produce silk textiles that conforms to the needs of the community. These successes can be regarded as an example in community participatory culture which can be applied as cultural capital in creating added value.

#### 5. Suggestions and Recommendations

The importance and benefits of the conservation and development of silk textile patterns in creating added value can be applied directly by silk textile producers which will create awareness, motivation, benefits and extended research. Continued development and research into innovative techniques and designs will greatly enhance the production and sale of silk textiles. Provincial administrative organizations, Sub-district administrative organizations, community members and related individuals can provide support and help promote conservation efforts and contribute to the development of commercial silk textile productions. Provincial government offices and cultural centers can utilize the research results and knowledge in designing and planning the cooperation within related offices in providing a driving force in the conservation and development of silk textile patterns in the province of Khon Kaen. The knowledge can be further dispersed and diffused to external groups of commercial textile producers and to interested individuals who can apply the knowledge in making silk textiles to further their income. Media correspondents in print, radio and television should increase their programs and coverage of the history, conservation and development of locally produced silk textiles. Topics that should receive extended research should include detailed production processes, production tools, traditional and contemporary raw materials and designs of textile patterns.

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