

The integration of traditional knowledge in the design and development of *mudmee*, *praewa* and *yok tong* silk products for enhancing community economy

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This qualitative research examines three types of silk in three North-eastern provinces of Thailand. The integration of traditional knowledge used to create local *mudmee*, *praewa* and *yok tong* silk products in modern Thai society is assessed using a survey, observation, interview, focus group discussion and workshop. The results show that the original silk products created by locals were for family use. Weaving developed into a community business. In its current form, the products suffer from a lack of modernity and lack of interest from the younger generations. There are four areas in which the weaving process must be developed to add value to products and enable them to compete on the global stage: product popularity, equipment, weaver attitude and design identity. This paper concludes by offering designs of six product types for each silk variety that are adapted for modern lifestyle and have been accepted by local artisans.

Keywords: Traditional knowledge, Integration, Thai silk, Weaving, Creative economy, Development

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Silk fabric in Thailand is a creative artwork that must be developed and modernized to adapt to the requirements of modern markets in order to enhance the economy. Silk fabrics are made by weaving, bleaching and dyeing silk yarns. The results are designed in patterns using different techniques and processes, including embroidery and appliqué. The differences in the designs reveal the ethnic origin of the weaver and consumer. This is the 'fabric identity of each indigenous group' and has been continuously developed using local traditional knowledge¹.

Traditionally produced community silk is still used in modern Thai society, especially in the Northeast. Popular silks now are *pa khid*, *pa jok*, *pa yok* and *pa mudmee*, which are all derived from complex and intricate processes. For this reason, the weavers must be specialists. The production model of Isan silk changed according to the change in modern trends. While indigenous silk fabrics are popular, the knowledge and understanding of the value of indigenous silk fabrics has decreased. This has caused trade to suffer, which has in turn contributed to the decline of indigenous groups. The lack of recognition of traditional weaving value has had a number of

additional effects. The decrease in trade has led to a decrease in the number of specialists able to produce the craftwork. As a result, the products struggle to compete in the market because the quality is low or inconsistent. The workforce always changes, which means that staff members are not employed long enough to be trained. For the most part, woven silk products are made in the original form and there has been no development or adaptation to modern society. The equipment used in the production process has not been modernized and weavers continue to use the same tools bought from the local market. There are also difficulties in sourcing materials in some seasons². The production time is uncertain because the weavers lack knowledge of systematic management. The product sale prices are not standardized because the weavers do not know how to allocate prices. Product design does not meet the needs of the market because there is no information or research about consumer trends and preferences. Nobody is responsible for marketing due to a lack of education and no clear definition of budget. There are no weaving groups to allow exchange of ideas and if there is high demand, weavers are unable to produce goods in time to meet it. There is also no quality control process.

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The provincial silk fabric is different in the identity of each North-eastern Thai Province. Khon Kaen Province in central Isan has had a long history since the Dhavarati Period and was the origin of silk weaving in Isan. The outstanding fabric produced in Khon Kaen Province is *mudmee* silk. Ban Chonabot, Chonabot District is the centre for traditional knowledge in the area. Mr. Songkram Ngamyang and Mr. Suwan Sreerat are responsible for *mudmee* silk designs and dissemination in the local community, government and private institutions and general people³. Kalasin is in the North of Isan. The outstanding fabric produced in Kalasin is *praewa* silk. The majority of people in the Province are of Phu-Tai ethnicity. This group weaves silk for personal use. Favoured products of the Phu Tai in Kalasin were *pa khid* and *pa jok*, which both involve complicated weaving processes.

These silks have been developed so that the current identity of the province is *Praewa* silk, which is woven in Ban Pone, Kammuang District, who increased and spread the reputation of Kalasin silk. *Praewa* silk uses only the finest and most fragile threads. It is popular to dye the threads red and use a loom to increase fibre count before weaving. The creation of design on *praewa* silk fabric uses a combination of *khid* and *jok* methods.

The designs include a variety of colours that set *praewa* silk apart from other silks⁴. *Pa yok tong* 'jan soma' is the provincial fabric of Surin Province in the Southern part of North-eastern Thailand and is derived from the combined traditional weaving knowledge of Thai and Khmer ancestors that has been inherited from generation to generation. The designs on the *pa yok tong* come from weaving techniques using a large number of heddles, up to 1,418. *Yok tong* requires five people to make and it takes one day to make three to four centimetres of fabric, or one month to make a metre. The fabric sells at no less than fifty to seventy thousand baht per metre. The patterns used on *yok tong* fabric are *kroot yuttanak*, *thep phanom* and *kaobin*. Wiratam Trakoon-Ngeunthai and Sumalee Trakoon-Ngeunthai are the chief designers of *yok tong* fabric in Surin, working from Tasuang Sub-district⁵. From analysis of documents related to the integration of traditional knowledge in the design and development of indigenous silk products, the research team was interested in studying the silk of three *Isan* communities: *Khon Kaen*, *Kalasin* and *Surin*.

The investigation was aimed at raising the value of silk products so that the products of Khon Kaen, Kalasin and Surin could compete more effectively.

Methodology

This research has two primary aims:

- 1 To study the current conditions of silk production in Isan communities, and
- 2 To study the integration of traditional knowledge in the design and development of silk products for the creative economy of Isan communities.

This is a qualitative research and the researchers used a purposive sampling technique to identify three research areas: Khon Kaen, Kalasin and Surin Provinces.

The research population was composed of:

- 1 The *Mudmee* Silk Production Group of Ban Chonabot, Chonabot District, Khon Kaen;
- 2 The Ban Pone *Praewa* Silk Production Group of Kammuang District, Kalasin;
- 3 The Ban Tha Sawang *Yok Tong* Production Group, City District, Surin and *Yok Tong* Production Group of Ban Tae, Srikornpoom District, Surin Province.

The research area has a fifty-year history of commercial silk production integrating traditional knowledge inherited from ancestral communities. Tools used for data collection were survey, participant and non-participant observation, structured and unstructured interview, focus group discussion and workshop. The three experts consulted when designing research tools were Dr. Worawan Ubonleod of Maha Sarakham Rajabhat University, Dr. Boongeut Laomee of Tiphud School and Dr. Sastra Laoakka of Maha Sarakham University. The workshop was held on Monday 19th August, 2013 at the Faculty of Cultural Science, Mahasarakham University. Members of the three production groups were present to design a method for the integration of traditional knowledge in the production of modern silk products. The data collected during field study and document research was organized according to the two aims of the investigation. Data was validated by triangulation, using the methods outlined by Songkoon Chantachon⁶. The research data was analyzed using analytic induction and typological analysis⁷.

Results

The results found that silk production in the three provinces of Khon Kaen, Kalasin and Surin was

conducted on the premise of creating a provincial identity for *mudmee* (Fig. 1), *praewa* (Fig. 2) and *yok tong* (Fig. 3) and using it to generate income. The production methods in the three provinces are not different. Producers are divided into two types. The first is independent weavers. This group of people produces silk as part of their everyday lives and are generally comprised of elderly community members. The second type is production groups, who weave silk as a business. These businesses are usually responsible for every stage of production. Nowadays, modern materials, equipment and technology are used in the production process. The biggest innovation is the inclusion of electrically-powered equipment, such as sewing machines, over lock sewing machines and electronic scissors, which reduce production times and increase batch quantities. Original styles and designs are not trendy because the fabric is not striking, the patterns are easy to reproduce, there is no intricacy, the colours are not fashionable and the colour fades easily (Figs. 4, 5, 6).

In order to add value to the *mudmee*, *praewa* and *yok tong* silk products, better integration of traditional knowledge must be achieved on four fronts, along with adaptations to make the products more fashionable and appealing. Firstly, the products must be marketed to make people proud to wear them. This will allow people to realize the value of the silk products and encourage participation from all areas of the community. Secondly, materials, equipment and technology must be developed. The producers must pay attention to the selection of materials, equipment and technology so that they are compatible with the product being created. The producers must consistently compare their own work results and evaluate the effectiveness of using different materials and tools (Figs. 7A-D). The speed and beauty of the finished silk products must meet consumer demand. Thirdly, weavers must be interested in their own work and pay attention to the design and colour of their products. They should research the work of people in



Figs.1 to 6—The identity of *mudmee* silk fabric; (2) The identity of *praewa* silk fabric; (3) The identity of *yok tong* silk fabric; (4) Original-style *mudmee* silk products; (5) Original-style *praewa* silk products; (6) Original-style *yok tong* silk products

other communities and survey the interests, needs and trends of their consumers as a basis for design work. Product quality must be developed and controlled so that it is consistent with standards set by the local provincial community development office and the provincial industry office, who should in turn consider standards set by international Thai silk retailers, such as Harrods in the United Kingdom. A variety of products should be developed that have a practical application in everyday life, such as modern clothing, furnishings and office products. Finally, the product designs must incorporate the local identity and allow the silk to be transformed into a variety of different goods, including male (Figs. 8A-C) and female (Fig. 9A-C) clothes, fashionable bags, tablet cases, neckties and scarves (Figs. 10A-E, 11A-F, 12A-F, 13A-F).

Discussion

The methods for producing *mudmee*, *praewa* and *yok tong* silk fabric were originally focused on manufacturing goods for use within the household. Consequently, the majority of goods produced were clothing. The traditional knowledge of silk weaving was passed on from generation to generation by the teachings of elderly women, who would instruct their children and grandchildren in the handicraft and give them practical experience. This scenario is a representation of the structural functional theory, which states that societies are able to continually exist due to the social systems within them and the mutual relationship between the individual members and their surrounding environment⁸. This also corresponds to the research of Songkoon Chantachon, who found that Isan people are people from a variety of ethnic backgrounds who have a lifestyle heavily dependent on their surrounding environment⁹. This type of existence has developed a structure of trial and error, the accumulation, adaptation and application of which is the traditional knowledge of today.

Nowadays, the weavers continue to produce products using the same styles and designs that have been inherited from their ancestors. In studying the inheritance of weaving among the Thai Song Dam people, Rachapon Batpiboon found that the same weaving designs were inherited because they were required for ceremonial purposes¹⁰. As the designs were tied to the traditions and beliefs of the people, they were not adapted. This has been the case with the silk of Khon Kaen, Kalasin and Surin, although now, the younger generations require more fashionable and modernized goods.

In order for the silk products to flourish in a competitive environment, there are nine factors of creative economy that must be considered: 1) communications and other structures; 2) human resources development; 3) financial sponsorship; 4) marketing; 5) networking; 6) research and development; 7) rules and regulations; 8) data recording systems; 9) driving mechanisms.

As the modern technology that must be incorporated into the production process cannot be self-made, more markets for the sale of silk products are opened when producers travel to buy new equipment. This is a side-effect of the necessary modernization of equipment¹¹. Although cultural exchange in this way is beneficial for local weaving, it negatively affects the inheritance of traditional methods because the invasion of Western cultures has decreased and diluted the importance and appeal of traditional silk clothing in the local communities.

Silk products can be divided into two groups, hand-woven and machine-woven. Hand-woven products are highly-finished, finely-detailed and expensive. Machine-woven products are more varied, have consistent quality, are mass-produced and cheaper. The ultimate value of products lies in their originality, history, suitability, season, cost, marketing and beauty¹². With this in mind and as the outcome of focus group discussions and workshops, the research team has developed six types of product for each of the three silk varieties in each of the North-eastern Thai provinces studied. These products are formal occasion wear for males and females, bags, neckties, scarves and tablet cases. The transformation of silk fabric into more varied products has allowed the business to compete in more market areas, such as home textiles, decorations and fashion apparel. By entering these areas, silk fabric businesses have more competitors in the form of mass merchants, specialty stores, boutique stores and mail-order catalogues. Increased competition has had an effect on pricing. Domestically, the retail price for silk products is between 35% and 50% higher than the production cost. The retailers buy the original goods from the producers at 30-40% more than production cost. Internationally, the retail price for silk products is also between 35% and 50% higher than the production cost, despite the fact that retailers buy the original goods from the producers at only 30% more than production cost. The reason for inflated margins is the import costs and handling charges associated with



Figs 7 to 10— (A-D) Equipment used in the creation of *mudmee*, *praewa* and *yok tong* silk products; (8) (A-C) Steps in the creation of male clothing from *yok tong* silk fabric; (9) (A-C) Steps in the creation of female clothing from *mudmee* silk fabric; (10) (A-E) Final products created from silk fabric in Isan



Figs 11 to 13— (A-F) Newly designed *mudmee* silk products using the integration of traditional knowledge in Khon Kaen Province (A - Female work outfit; B - Male work shirt; C - Fashion bag; D - Necktie; E - Scarf; F - Tablet case); (12) (A-F) Newly designed *praewa* silk products using the integration of traditional knowledge in Kalasin Province (A - Female work shirt; B - Male work shirt; C - Fashion bag; D - Necktie; E - Scarf; F - Tablet case); (13) (A-F) Newly designed *yok tong* silk products using the integration of traditional knowledge in Surin Province (A - Female work outfit; B - Male work shirt; C - Fashion bag; D - Necktie; E - Scarf; F - Tablet case)

Table 1—*Mudmee*, *Praewa* and *Yok Tong* silk products created as a result of traditional knowledge integration in Khon Kaen, Kalasin and Surin Provinces

Type of Fabric	Product name	Use	Selling price (Thai Baht)	Market
<i>Mudmee</i> Silk Fabric	Female work outfit	To be worn for work and formal ceremonies	6000	Sales shop, Ban Chonabot <i>Mudmee</i> Silk, Chonabot District, Khon Kaen Province
	Male work shirt	To be worn for work and formal ceremonies	3000	
	Fashion bag	To carry personal items, cosmetics and stationery	1500	
	Necktie	To be worn for work and formal ceremonies	300	
	Scarf	To be worn around the neck in air-conditioned offices and cold weather	400	
	Tablet case	To be used as a protective bag for tablet computers	400	
	Female work shirt	To be worn for work and formal ceremonies	3000	
<i>Praewa</i> Silk Fabric	Male work shirt	To be worn for work and formal ceremonies	3000	Sales shop, Ban Pone <i>Praewa</i> Fabric, Kammuang District, Kalasin Province
	Fashion bag	To carry personal items, cosmetics and stationery	1500	
	Necktie	To be worn for work and formal ceremonies	300	
	Scarf	To be worn around the neck in air-conditioned offices and cold weather	400	
	Tablet case	To be used as a protective bag for tablet computers	400	
	Female work outfit	To be worn for work and formal ceremonies	6000	
	Male work shirt	To be worn for work and formal ceremonies	3000	
<i>Yok Tong</i> Silk Fabric	Fashion bag	To carry personal items, cosmetics and stationery	1500	Sales shop, Ban Tae <i>Yok Tong</i> Fabric, Srikornpooon District, Surin Province
	Necktie	To be worn for work and formal ceremonies	300	
	Scarf	To be worn around the neck in air-conditioned offices and cold weather	400	
	Tablet case	To be used as a protective bag for tablet computers	500	

international trade. Based on these figures, the prices for new silk-fabric products have been standardized (Table 1) and the products are on sale in the local silk shops (Figs. 11A-F, Figs. 12A-F, Figs. 13A-F).

This study is of benefit to the silk weaving communities in Khon Kaen, Kalasin and Surin Provinces in North-eastern Thailand. Further research must be focused on assisting weaving communities throughout Thailand and creating a set of national specifications to standardise the Thai silk industry. While the products designed as a conclusion to this research will enhance local community economies, society will not stand still. It is therefore necessary for the weaving communities in Khon Kaen, Kalasin and Surin to establish a market research network that will

provide them with the required consumer knowledge to continually update their products and develop their businesses.

Conclusion

The design of *mudmee*, *praewa* and *yok tong* silk products must be continuously developed to correspond to the everyday lives of people in modern society. The materials, production process, design styles, management and marketing should all be updated to add value to local silk products and enable them to compete more effectively.

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