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## Traces of War: The Revival of Silk Weaving in Cambodia

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Traces of War: The Revival of Silk Weaving in Cambodia  
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This report is the outcome of the research commissioned by United Nations Educational, Scientific and Cultural Organization (UNESCO). In this research, I visited more than 36 villages in 8 provinces between January and March 1995. Because of the civil war disturbance beginning in 1970, few information relevant to textiles remained in Cambodia. Even maps, which are indispensable for a field survey, were not available at first. My research, therefore, began with asking shopkeepers at the markets in Phnom Penh, "Where did this fabric comes from?" Then, I arrived at remote villages, where I heard weaving activities still continues. When I finished interview at such a village, I always asked the interviewees whether I could reach other weaving villages if I was to proceed. I headed to other villages if they gave me directions.

### Background

The origins of Cambodia can be traced back to 7th century CE with the first Khmer kingdom. The Angkor Empire flourished at its peak in 12th century CE during the era of King Suryavarman II and Jayavarman VII. The empire encompassed a large part of Vietnam, Laos, and Thailand, and became a major trade center whose route was connected by the "ocean silk road" connecting South India and China. However, the Angkor Empire declined due to frequent attacks by the Siamese in Thailand. The empire collapsed in the 15th century CE and has been subject to political and military intervention by its powerful neighbors; Thailand and Vietnam. French imperialism and then the power game between the Eastern Bloc and the Western Bloc have been affecting the stability and independence of the country.

The present Kingdom of Cambodia covers a land area of 181,035 sq. km. Excluding the mountains in southwest Cambodia, the country's topography is almost flat. Tonle Sap Lake is in the center of the country while the Mekong River flows through the eastern part of the country. The Mekong runs from the northern Lao border via Phnom Penh, down to the southeast, and then reaches the Mekong delta in Vietnam. Before 1970, when the country was involved into the war, fertile land and abundant water resources brought prosperous rice production to the country. Village life was based on self-sufficient agriculture, which depended on the monsoon climate. In this setting, sericulture and weaving have survived as a part of rural people's life.

### Types of Traditional Silk Fabrics in Cambodia

The vestiges of the Angkor Empire at Angkor Wat and the Bayon offer clues to the origin of Cambodian silk fabrics. On the bas-reliefs depicting the daily life of the people during that time, I have noticed that there are costumes with floral motifs or geometrical border patterns that very much resemble the Indian *ikat* or resist-dyed textiles, *patola*, of the same period. According to the book *The Customs of Cambodia* written by a Chinese diplomat, Chou Ta-Kuan, who visited Angkor Empire in the 13th century, textiles with spaced floral design were imported from India and considered the very valuable. Moreover, Angkor people began raising silkworms and weaving.

It has been found in the research that Cambodian silk fabrics can be divided into three main groups according to purpose of usage as well as dyeing and weaving techniques. The first group comes under the ikat technique, or *chong kiet* in Khmer language, and involves the tying of partial sections of the weft yarn with fiber for resist dyeing that creates patterns on the yarn before weaving. Within this category are various fabrics such as the *pidan*, and *samphot hol* (hip wrapper). The *pidan* is normally used as a wall ornament for religious ceremonies. There are many kinds of motifs such as temples, deities such as *apsaras* or female deities, elephants, lion and *nagas* or water serpent deities. These motifs all have Buddhist origins. Among old works, there is the *pidan* that has no repetition of same pattern. Its features are quite distinct from ikat works in other countries. The *samphot hol*, on the other hand, is used as a lower garment. The *samphot hol* can be divided into four sub-groups in accordance with the color and design. The first one is traditional *samphot hol* consisting of five basic colors: yellow, red, black, green and blue. These colors were obtained basically from natural dyestuffs. The second is *samphot hol por*, which has a brighter tone and more colors from chemical dyestuffs. It is currently very popular at markets of Phnom Penh, the capital of Cambodia. The third, *samphot hol kaban*, is exclusively worn by men. The *samphot hol kaban* is much larger and sometimes is worn like the Indian dhoti. The last group is *samphot hol kting*, which is comprised of alternating stripes and small motifs of weft ikat. Traditionally, there more than 200 motifs for the *samphot hol*, all of which have never been traced on paper but embedded in the memory of weavers. The number of skillful weavers, however, has decreased drastically because of political instability, and a few survivors are now getting older without passing their excellent skills to younger generation.

*Samphot pamuong* is the second main group of Cambodian textiles. It is woven by weft-faced twill texture like the *hol*, but uses different color yarn for the warp and weft. The result is a shot silk appearance. The *chorabap*, used for wedding and other special ceremonies, is the most luxurious textile not only among *samphot pamuongs* but also among existing Cambodian fabrics at present. Its supplementary weft patterns are woven with gold or silver threads and scattered all over throughout the textile. The *kaneiv* applies the ikat technique, but instead of forming motifs, it randomly leaves colors along the length of the yarn. Different colored yarns will then be twisted together into one thread to be used as the weft. The *bantok* uses the supplementary weft technique. Its motifs are very small (about one centimeter) and repeatedly woven across the fabric.

### Centers of Silk Weaving

Takeo province is one of the most famous traditional weaving areas. In Takeo province, weaving villages are located only in Bati, Samrong, and Prey Kabas districts. The weaving centers are about 50 km south of Phnom Penh. In this area, some houses have more than one loom. Looms are placed on the ground beneath the stilted house. The loom is traditionally made of a frame 3-4 meters long and 1.3 meters wide with wrap beam attached at the rear. Among Cambodian people, the most famous place for weaving is Prek Changkran village, Sithor Kandal district, Prey Vieng province. The village is situated along one tributary of the Mekong River that flows downwards from Kampong Cham. At this village, some households specialize in the tie-knot dyeing process while others only weave. This division of labor has not been found in other weaving villages. In

addition, Muslim Cham villages in Kampong Cham province are well known for samphot hol production.

With regard to supplementary woven textiles, most of the weaving villages are concentrated in Kandal province. Tavon village, which is 15 km upstream from Phnom Penh, is considered as the center among these villages. Besides the areas mentioned above, textiles are woven in Kampot, Kampong Speu, Siem Reap, Battambang, Banteay Meanchey and Kampong Chhnang provinces. However, its production is very small scale and mainly for household use.

### Silk Yarn and Natural Dye

At present, nearly 100 percent of silk yarn used for textile production is imported from Vietnam. Although indigenous yellow silk cocoons still exist and villagers used to raise silkworms and produce yellow silk yarn from them twenty-five years ago, its custom is now on the verge of dying out. Traditionally, Cambodian silk was dyed with natural dyes. As seen in traditional samphot hol, there are three basic colors: yellow, red and black, and two additional colors: blue and green. To dye the yellow color, the bark of *Bror Hoot* or Gamboge tree (*Gareinia hanburyi* Hook. f.) is still used in some villages. The nests of the lac insect (*Laccifer lacca* Kerr) are used to dye the red color. Villagers in Takeo province have used the annatto (*Bixa orellana* Linn) to obtain the color red. In order to obtain black color from natural dyes, there are two ways. The first method is to dye the yarn three times, once in yellow, the second time in red, and the third time in blue. Another method is to use *mak klua* or the ebony tree fruit (*Diospyros vera* A. Chev.). To get the green color, yarn is dyed twice, once in yellow and the second time in blue. *Cleih* is the Khmer word for indigo dyeing which is to obtain the color blue. There are many kinds of indigo. According to the villagers, the indigo that they used to grow is the Indigo tree (*Indigofera tinctoria* Linn), called *trom* in Khmer. The *trom* is fermented and becomes a blue muddy paste, which is called *mor*. The whole process from *trom* to *mor* is called the *cleih*. Today, most of the villagers use chemical dyes rather than natural dyes.

Presently, some of the finest Cambodian silk fabrics using excellent ikat techniques are found in famous museums around the world or private collections.

### Traces of the war in textiles

The traditional Khmer lifestyle and culture in Cambodia was disrupted for a quarter of a century during the reign of Commander-in-Chief Lon Nol (1970-1975), the Khmer Rouge (1975-1979), and Vietnamese intervention in 1979 until the foundation of the transitional government in 1993. Among those traditions affected, the old Cambodian art of woven cloth was one of them. "A quarter of a century" corresponds to "one of generation". The Cambodian demography as of three years ago shows that more than half of the population is under 15 years of age, the proportion of people in their 50s and 60s is about the same, but the population in their 30s and 40s is extremely small. This highly unbalanced demography is a direct result of the history of armed conflicts in Cambodia since 1970, which also left its mark on Cambodian traditional textile tradition. There are some people older than 60 who know the skills of tradition weaving, but few people under the age of 50 have mastered weaving and dyeing.

I am now engaged in a project to find older weavers to teach their skills the younger generation in Cambodia. From January through May 1995, I conducted research on the status of the traditional Khmer silk weaving at the request of UNESCO. The research was not an easy task as hardly any related information existed due to the 25-year absence of weaving. Where in the country and on what scale is silk woven? If not anymore, until when was it last woven? Is natural dying still conducted? Is sericulture still occurring? The information from the last survey by French specialists is almost 30 years old. Among the few facts identified in my 1995 survey, one finding was that traditional hand-woven textile have been gradually revived since 1990. However, almost all of the silk used is imported from Vietnam. The traditional high quality Cambodian textiles used were woven using Cambodian reeled silk when sericulture was a big industry in the country. Most farmers stopped silkworm raising around 1970, and now there are hardly any farmers engaged in sericulture. More than 95% of weavers use imported silk, but its price is unstable: during the period of 1993 to 1995 the price went up by 20 % every year. In 1996 it became relatively stable, but the price is still volatile on the whole.

Now a number of young weavers are being born into the art of traditional textile weaving in Takeo, 50 kilometers south of Phnom Penh, and in Kompong Cham, north of the capital along the Mekong River. However, the industry is controlled by greedy merchants: the distribution is totally in the hands of middlemen, who supply weavers with raw silk (people in village normally have no capital to start any business) and pay them for the labor. The weavers' pay is low, so they try to produce as many cloths as possible to make the most possible money. As a result the quality of the products deteriorates.

On my visit to Cambodian villages the strongest impression was the visible influence of modernization after World War II. Traditional Cambodian textiles have geometric patterns or natural motifs such as flowers, which itself is an accomplished and unique form of Asian art. However, compared to traditional patterns, contemporary patterns became bigger and bigger after the war, and the works produced now carry patterns are several times bigger than previous. This means less attention is paid to the production process. Old weavers in their 70s and 80s told me about the changes they made in the production process in their early days: how they made patterns bigger, what modern tools they introduced, why they replaced natural dyestuffs with chemical ones, and why Cambodian silk was replaced with imported silk. While listening to their stories, the modern history of Cambodian textiles gradually took shape in my mind. Stimulated by this, I decided to help the village weavers establish an environment that allows them to produce high-quality products as quickly as possible.

The Institute for Khmer Traditional Textiles (IKTT) is a Cambodian organization that I established in January 1996, and is non-political and non-profit oriented. IKTT works in close collaboration with international aid agencies, and local and international NGOs. In addition, IKTT works with experts and scholars in the concerned areas in other countries.

Raising silkworms best suited to the environment



High standard sericulture is vital for fine weaving. However, my research found out that traditional sericulture had almost died out in Cambodia apart from a few villages in Kampot. I, together with people from the villages, set forth on a mission to revive traditional sericulture. The foundation for a revival was there: mulberry trees, old tools and the older generation. Most mulberry trees had been cut down during the civil war, but there were some although unattended and in a wild state left in the village. Some old tools were still present, and most importantly, some elderly people who remembered the techniques were still alive. We made other tools ourselves, such as bamboo baskets, following traditional methods. In the process we also rediscovered local knowledge such as evil-repelling leaves and a herbal disinfectant.

Procurement of the most important material, silkworms, was my responsibility. I obtained some silkworms egg of the indigenous species of Thai of Khmer origin from near the Cambodian border. Silkworms live for about 45 days. Japanese or Chinese silkworms hibernate and hatch either in spring or summer. However, the yellow, tropical variety from Thailand hatch at different times throughout the year, so silk can be produced about 7 times a year. However, the yellow, indigenous variety can produce only less than one gram (about 300 meters) of raw silk from one cocoon, while the white variety from Japan and China can produce two grams (1400 meters). Therefore, the former seems to be extremely inefficient to the eyes of modern sericulturist, and there is a tendency to try to raise bigger silkworms. For example, during the 60's and 70's Thai sericulturists tried to improve imported Japanese silkworms to suit their climate, but the attempt ended in failure after 10 years. It was an unrealistic goal to bring a temperate species to the tropical monsoon climate, and problems encountered were that the cocoons were prone to diseases due to the change in temperature, flies and other natural enemies. The village was forced to purchase a large refrigerator to protect the silkworm eggs. Despite the failure, the mainstream opinion among Thai sericulture specialists, and some Cambodians, is that white cocoons are better due to their productivity. However, I still believe the yellow, tropical species is much more suited to the Cambodian climate and tradition. It is possible to raise the tropical variety under natural conditions and the mortality rate of silkworms is very low. In addition, the raw silk reeled off from the traditional variety is much more soft and pliable than from the white species.

#### Tradition enhanced by natural environment

Why did so many lacs die in Cambodia? An old village man, who used to raise stick lac in his youth, gave me one explanation: there used to be many forbiddances for lac raisers, such as "he must not touch a dead body", "he must not eat hot steamed rice", or "he must not kill the snake." However, one day this farmer helped with his grandmother's funeral where he accidentally touched her body, and he believes this is the reason why his insects subsequently died. Of course, his account is based on superstition. My research revealed that the death of stick lac was caused by human conduct: during the chaos of the civil war most of the trees were chopped down for use as building material or to sell. This caused the trees in which the stick lac lived to be exposed to the direct sun and an increase in temperature so the lac died. Humans destroyed the lacs' natural environment.

The Institute for Khmer Traditional Textiles is now proposing a plan to regenerate a natural forest here in Siem Reap, Angkor province; a forest vital to the growth of stick lac. The forest has also been the center of natural environment that has sustained the villagers' traditional lifestyle. But this is not the only goal. Our proposal includes establishment of a modest natural dye garden; meaning plants, trees and fruits used as natural dye materials, are to be grown in the same forest. In other words, this is going to be a creation of a forest coexisting with human beings.

During the course of our activities in research and restoration of traditional textiles, on various occasions, we have learned that a tradition always exists with nature. Richness in tradition cannot stand without richness in nature. The lifestyle and culture of the people in this region have been supported largely by natural forests in the tropical monsoon climate and by rice farming. Based on this recognition, we have a plan to develop our project in yet another aspect. In the neighboring area to the "traditional forest," we plan to grow cotton and mulberry, and construct a small hamlet for restoring a range of Cambodian traditional crafts such as weaving, dyeing, bamboo work, woodwork, pottery, and so on. One of the purposes of building this hamlet is to convey to the next generation the abundance of traditional crafts that have lived with those tropical forests presently being endangered.

The whole scheme is called "Project to Regenerate a Traditional Forest". The initial term of the project is expected to be 5 years: the estimated time required by seeds to grow into saplings and take shape of a forest, where the stick lac can survive. In the past several years, the Institute for Khmer Traditional Textiles has been conducting a revival project of traditional sericulture with the Mulberry Trees Fund. We intend to make the best use of this experience in our new attempt.

The Institute for Khmer Traditional Textiles aims to restore and to perpetuate the traditional textiles industries in Cambodia. with the cooperation of the old women who conserved precious traditional techniques throughout the turmoil of the country and recognize all related cottage industries such as silkworm raising and weaving techniques. This project also intends to construct a promising textile industry and to instruct young competent successors to assure this tradition is not forgotten. With this perspective, we intend to study all elements concerned of the past and of the present in Cambodia and also in Thailand, Laos, Indonesia or Japan and will organize mutual exchanges among the weaving or dyeing experts of this area in order to stimulate productive energy and to create new ideas or techniques based on the tradition.