

Storing Pattern Above the Warp Line

Deb McClintock

Beyond my initial research on Lao looms,¹ I have observed many pattern storage device formats in use throughout Southeast Asia countries by many ethnic groups. One of the more interesting loom techniques that can be modified to our western looms is the Vietnamese Tay Dam loom. Kay Faulkner, a fellow traveler, and I were able to document and observe the loom for application to our art in the use of storing pickup.

We took advantage of a homestay program in the village of Pom Coong, supported by the Mai Chau district government that provides financial assistance to craftsman to support themselves in their agricultural environment by supplementing their income with homestays by tourists.

We sat down with Vuong and her daughter as they were weaving and learned about their family and the loom. Their Thai or (Tay Dam) elders followed the Song Da (Black River) from Laos and settled in Vietnam.



Figure 1. Vuong in the Vietnamese village of Pom Coong

Other terms to describe her people by the Vietnamese government are Black Thai and White Thai.² Ethnic relationships and names can get quite complex very quickly. Patricia Cheesman in *Lao-Tai Textiles* gives a brief historic rundown of the relationships of these peoples to the Lao ethnic groups for those who want more comprehensive background on the regional journeys of these groups.³ Michael C. Howard and Kim Be Howard present another specific view of the ethnic groups in *Textiles of the Southern Thai of Viet Nam*.⁴

On a general observation level, the pattern device is very similar to the Chinese bamboo drum loom documented by Ulla Cyrus-Zetterstrom in *Textile Terminology*;⁵ the bamboo cage loom defined by Cheng Weiji in the *History of Textile Technology of Ancient China*;⁶ the brocade with many rods photo-

documented by Sadae Torimaru in *Spiritual Fabric*;⁷ and finally the mechanized drum documented by Leferts in *Textiles and the Tai Experience*.⁸

The key difference that I observed is that the device has transitioned from various forms of a backstrap loom in the sources referenced to a frame loom with treadles. One does not know how or when the physical transformation took place, but the evidence is before our eyes as found in the Mai Chau district.

Specific to this visit in January 2012, for the past two generations Vuong and her daughter have lived in Pom Coong village. In 1947 her parents came down the river and settled in to protect the fields from animals. Vuong was twelve when she learned to weave from her mother in the method that she demonstrated to us. She has been very active in training the next generation of weavers.

Kay and I were shown textiles Vuong retained to use to train these future weavers. Quite lovely and intricate, examples included the monkey/fish tail/palm leaf pattern that took 72 sticks to store (see Figure 2). She also showed us a kaleidoscope of patterns of the saddle, horse, and bird.

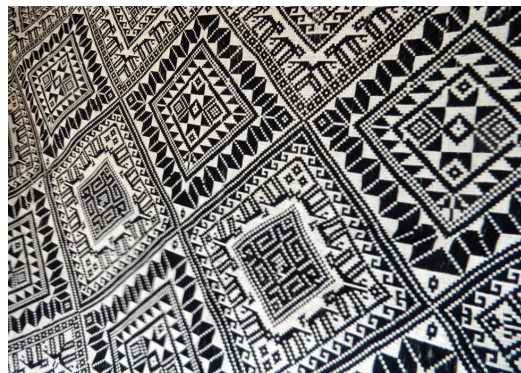


Figure 2.

She referred to her pattern device as the big khau (translator described/spelled it as such). On the Tay loom her daughter demonstrated the relationship of the weaving sword to the transient warp pattern sticks and their combined use to create the pattern with both continuous and discontinuous inlay. The weaving sword uses the transient warp stick to lift the pickup pattern threads before the transient warp stick is discarded. This differs little from the South American tradition of storing warp pickup patterns in the warp line behind the reed and shafts (see Figure 5).

What does differentiate this method is the pattern storage device that resides above the warp line and the interaction between the weaver, the transient warp sticks and the pattern storage sticks for repetitive use that remains in the Tay Dam Khau.

Loom Overview

The relationship of all elements of this device are captured with the pattern transfer; storage and transient warp stick placement including the sequence of placing the transient warp sticks in the warp for use in weaving the cloth.

It is a simple effort, using just one weaver, and sequences the pattern placement in the warp threads, the storage and the weaving in a logical manner. The use of the pattern stick storage Khau above the warp line was a nice gift of knowledge from the younger Tay weaving generation to us.

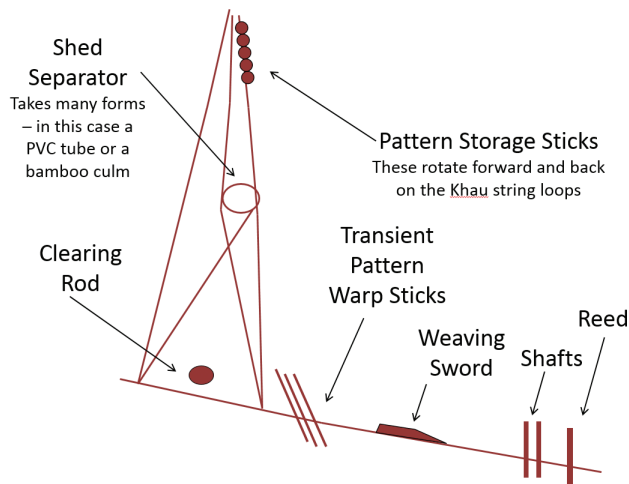


Figure 3. Khau components



Figure 4. Six Khau components

1. Pattern storage sticks above warp line
2. Vertical pattern holder above warp
3. Transient warp sticks in warp line
4. Clearing rod
5. Weaving sword
6. Weaver's knowledge of the use of #1-5

Steps for Tay Dam Bamboo Culm Pattern Storage Set Up

Preliminary set up

1. Loom is warped and initial pattern pick up done by hand (see Figure 5).
2. As each pickup shot is completed the pickup is transferred to the warp line behind the shafts and each shot saved by a transient storage stick.



Figure 5. Initial pickup

Pattern storage device set up (Khau)

1. A bamboo culm (historic) or PVC (contemporary) pipe is suspended above the warp line towards the back of the loom. This is the pattern storage shed separator. The placement of the PVC cylinder keeps the shed rotation separate so that the pattern may be stored forward or back of the PVC pipe. In the past this device would have been a bamboo culm.
2. With the warp line under tension a string loop is connected to a hanging stick above the shed separator. The string is looped in front of the shed separator, around the warp thread units (two threads in tabby used for example) and back up behind the shed separator. A knot similar to a lark's head loop secures the loop, and the continuous thread proceeds to create the next loop. In the end the entire warp is within the pattern loop mechanism above the warp line. For example: 300 threads = 150 loops holding two threads each = two threads in reed.



Figure 6. Khau at rest

Transfer of pickup in warp line to the pattern storage device

1. The weaver places a shed rod in between the loops and below the shed separator (see Figure 7).
2. A weaving sword is used to pick up the first stored pick in the warp line (closest to the back of the loom and the pattern storage device).
3. The clearing rod is pressed down and pushes threads not held by pattern loops down. Due to the nature of the clasped heddles in use and the long warp line, it is easy to manipulate the threads in the warp line to show this pickup.
4. Loops that are under the weaving sword are pushed back by the shed rod and loops that are over the sword are pushed forward. The shed separator's position within the loops creates a V in which the transient storage pick stick can be inserted into the loop.
5. This pattern storage stick is pushed up into the pattern storage device, secured in place by twining with a continuous second string loop that protects the pattern sticks from falling out.
6. The next pick-up in the warp line is brought up to move to the pattern storage device in the same manner as steps 2–5.



Figure 7. Pattern stick transfer

Static storage of design is in place

At this point the pattern is stored above the warp line free of the warp by a series of pattern storage sticks and available for use by the weaver. The weaver will weave stripes or yardage between the patterns as appropriate for the fabric being woven.

Rotation of pattern back into warp line for use

When the weaver is ready to use the stored pick-up, she proceeds to the side of her loom and rotates the pattern



Figure 8. Pattern transfer to warp line

pick-up back to the warp line by each pattern storage stick.

The significant part of this transfer process is that transient warp sticks are introduced at this stage. The pattern storage stick is rotated from the front to the back of the pattern storage device and remains above the warp line for reuse, and transient warp sticks are placed in the warp line for one time use.

In other words, the pattern storage sticks remain in storage for reuse above the warp line and the transient sticks are placed in the warp line for immediate use. The weaver returns to her weaving bench and weaves the pick-up structure using her weaving sword to pull each transient pick-up stick forward, placing the pick-up on her sword for use and discards the transient stick.

Short movies of the loom actions described above are posted at <http://www.mytripjournal.com/travel-683570>.

Application to Our Looms

When applying pick-up storage to looms with heavier infrastructure, one must move the pattern storage device to the front between shafts and beater and abandon the idea of the transient warp sticks. Other alternatives to consider for using the transient warp sticks include the barn frame loom or the rigid heddle. This exploration is underway. The article's goal is to introduce the concept, as it exists in Vietnam, to the weaving population that is not familiar with Tay Dam weaving technology.

Deb McClintock will be presenting "Looms of Southeast Asia" at the Textile Museum, Washington, DC, on July 18, 2013, as part of the education series supporting the exhibit "Out of Southeast Asia: Art that Sustains," which runs through October 13, 2013.

1. McClintock, Deb. "Creating Lao Textiles." *Complex Weavers Journal*. Complex Weavers. January 2003, 71:37–40.
2. Van Huy, Nguyen and Le Duy Day, Nguyen Quy Thau and Vu Xuan Thao. *The Great Family of Ethnic Groups in Viet Nam*. GD Publishers: Viet Nam. 2002. p. 120.
3. Cheesman, Patricia. *Lao-Tai Textiles: The Textiles of Xam Nuea and Muang Phuan*. Studio Naenna Co. Ltd.: Chiang Mai, Thailand. 2004. p. 283.
4. Howard, Michael and Kim Be Howard. "Textiles of the Southern Thai of Viet Nam." *The Textile Museum Journal* 1999–2000. p. 43.

5. Cyrus-Zetterstrom, Ulla and Xu Guohua. *Textile Terminology*. Ulla Cyrus-Zetterstrom: Boras. 1995. p. 96.
6. Weiji, Cheng. *History of Textile Technology of Ancient China*. Science Press, Ltd.: New York. 1992. p. 278.
7. Torimaru, Sadae. *Spiritual Fabric*. The Nishinippan Newspaper Co.: Japan. 2006. p. 90.
8. Gittinger, Mattiebell and H. Leedom Lefferts Jr. *Textiles and the Tai Experience in Southeast Asia*. The Textile Museum: Washington, DC. 1992. p. 237.

