COMPLETE PROCESS OF WEAVING OF ADI TRIBE

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Abstract:
The dress of Adi tribe is divided into two parts. One is upper dress worn above the waist called Ulta Galuk and the other is the lower garment called Gale. The Adi women developed an appreciable knowledge and skill in traditional attire especially in Gale. Culturally and traditionally they weave important verities of Gale. They are competent in selecting of devices and materials in making it which requires years of experience. The culture, belief and spiritual aspects are attached with this. Various sources are utilized in making of it, like varieties of traditional cotton and mechanically made thread available in market.

It is one of the major traditional sources of income and livelihood, but younger generation does not show considerable interest in learning and continuing such culturally important practices. A mission mode integrated effort would be required to conserve women wisdom of weaving and making this profession economically viable through value addition, entrepreneurship development, chaining market and economic empowerment. In this paper, traditional weaving of Gale and related knowledge systems will be discussed.

Keywords: Weaving of Adi Tribe, loom, Economic Empowerment

Introduction
Adi tribe is one of the major tribes in the state of Arunachal Pradesh which is come under North Eastern Indian. Adi is an umbrella term denoting ‘hill men’ and it consists of number of sub-tribes who are residing mainly in Siang valley of Arunachal Pradesh

According to them weaving is the process of interlacing two sets of parallel yarns, known as the warp and weft, at right angles to each other to form a piece of cloth. Knitting and crocheting involve pulling loops of yarn through other loops of yarn to form a piece of cloth.1

Complete Process of weaving
In Adi, the complete process of weaving is called Sunyinnam. The beginning of weaving and starting for parallel yarns of warp and weft is called Ege panam. The knitting and crocheting involve pulling loops of yarn through other loops of yarn is called Sumnam.

Fig 1. Two women interlacing parallel yarns
Their first step in any weaving plan is to decide what the cloth’s purpose in life will be. Such planning guides the weaver in choosing the appropriate thread or yarn. For example, the yarn they use to weave a Gale needs
to be thick and hard-wearing, and the cloth must be hard and flat. It must not scratch, fold etc and must be pleased by everyone whoever wear it. A scarf or any cloth worn in the skin should be smooth and soft so it comfort to body. Because they weave shawls, gale, galuk etc and their personal favorite is choosing very thin thread in natural fibers that are comfortable to wear in skin. Cotton is their best choices. There is no set standard for the size of a gale and galuk - some people prefer long and narrow, others prefer a shorter, wider shape. The size of the wearer makes a difference too.

Before starting to weave, they must take decisions about length, width and final process because these factors decide the amount of yarn need in warp. The design, or pattern, of the cloth also has matter to reach in final process. What’s the scale of the pattern? Is it choosing a no repeating pattern again? The weaving work started once it is decided what thread to use.

The most important process in weaving of Adi is the warping process. Warping process integrates the loom techniques. Because the warping frame are later replaced by the loom. Thus, the warping process and the loom type are integrated. Warping is done through warping frame which is fixed with removable and adjustable pegs called Tage. The loom centimeter is to be set up before warping process. It can be set up in any public area openly. The warp is at an approximately 45 degree angle to cloth beam. The Gallong (shed roll) holds the warp threads which is fixed and separated from Gilgang. It is used to change the sheds for both plain weave and supplementary weft weaving. Due to Gallong, loom can carry in any appropriate places.

According to the statement given by H. Borgohain regarding setting of loom

“Spinning and weaving is the exclusive monopoly of the Adi women. It is an essential qualification for an Adi girl to acquaint with weaving. The first step prior to weaving is the fitting of loom and setting of warp on the working loom. Two persons are required for fitting the warp in the loom. The warp is longitudinal yarn through which the weft yarns are interlaced in weaving. First the warp beam is securely fasten to the wall of the house or any other suitable post supporting in a horizontal position at a height of about three to four feet from the ground”

The warps must be equal in length for weaving easily. If the warp is made unequal length then the cloth and warp beams will not be in parallel position which is called Payot. It causes unequal in width’s end of cloth which is known as Potke. The loom is confined with many stick to support the warp thread when it is weaving. After the warping process, the warp can be carried to any appropriate places for weaving. The patterns are well planned at the time of warping and when the loom is being set up. Each winding of the warp around the Tage is comparing with other colour depending on the type of textile. The weaver counted each colour and joins it with another colour, and then proceeded until the next time she chose to change the colour. Thus, each textile type is decided at the time of warping or while setting the loom. The weaver can change the warping process and set up the loom which is depending on what decorative technique is necessary to weave for particular textile type. However, every weaver follows the same warping method which is continuous alternate loop heddles are used each time. The warping frame is also the same.
The warp is done by the two sisters, one is called Palikna and another is called Payana. All the setting works like warping frame, beam, heddle, loom etc are done by the Palikna who sitting in the place of weaver and pass the yarn to Payana. There are two yarns for warping, one yarn is passing above the heddle and another one from the below. It is the Payana who pass the two yarns across the warp beam in alternate and give back to Palikna. The main restriction while passing the yarns across the warp is, misplaced of upper and lower yarns. It distracts the smoothness of weaving.

Fig 4. Adi women weaving traditional blanket called Badu.

The warp is prepared in circular which fitted with warp beam on top and cloth beam on bottom. The cloth beam is made of two beams fitted together. One beam is inserted into the warp, and the other lies on top of the warp. The two beams are rolled together one time and fixed with backstrap from both ending. The warp is wound above both beams. It may be a several meters in length which moves in a circle around the warp beam and one of the cloth beams. By using the backstrap, she can set in motion herself for weave the thread with the support of both beams. It is the weaver's body which regulates the motion of the loom. The purpose of backstrap is to control the balance between warp and the weaver's body and the beam. It is the weaver's strength and rhythm of movement that sets to motion the loom.

The Sumpa is used for beating the weft thread and its elements. The beating of the weft thread is done with a crash. The weft thread must not be longer the warp border because it can change the width of the textile. It must be equally beaten throughout the complete weaving for good quality of textile. From the starting to till finish of weaving, the thread is woven in one continuous wave from Sumpa.

By observing the warping process one can decide the type to be used in desire textile, design and size. The heddles control the pattern of the warp yarns. The number of heddles and its arrangement are determined at the time of warping. They use a double continuous cord for warping. Their warping process sets up the structure of the loom with the help of coil rod, cross sticks and heddles rod.

The proposed length, width of the textile, number of stripes, and colours wanted in the textile responsible for spent more time in warping process. The entire warping process for the widest textile possible takes two hours for a skilled weaver. Other weavers may take six hours. According to them, it is not good to talk, or be distracted when warping. It is important for the correctness and accuracy needed in counting of the threads, and inserting the heddle cord from side to side of warping frame. If the warping is not done carefully, then the winding of the warp thread could miss a peg, which may results in one short circle or if the thread is wound around the wrong peg then crossed threads will occur and if short threads are not ringed with the heddle cord then they will not have a heddle to control them while weaving. These problem and uneven tension may results too many interruptions.
The shed and cross is called Pape, which is regarded as one of the important avoid character for their weaving. The shed is the space which is created when one warp’s yarn is raised and the other set is lowered. Sometimes the warp yarns become interlaced alternatively with each passing through shed. The shed is facilitated by the cross in the warp. The shed and cross have two patterns in the warp yarn which is fixed with the heedless and cord. Later this cord is a continuous alternate single loop set of heddles. Their weavers use a single heddle rod called Rulbung and with one set of alternate continuous looped heddles called Tatnge. It is this heddle rod that controls the heddles.

In their weaving, the shed tools like heddle cord, heddle rod, and shed roll remains in the warp throughout the entire weaving process for both plain and supplementary weaving. The shedding tools control the warp and forms the counter shed which is carried by the heddle cord. Making and maintaining the cross by means of a heddle cord during the warping process requires skill and expertise. The attentiveness and correctness in action are important factors for good resulting of set the shed tools in warping. The shed tools control the warp once all the beams and rods are inserted into the warp. It is important to remember that the heddles are continuous, so when the weaver pulls the heddle rod up, half the warp is raised. Only half of the warp is raised because the heddle cord lifts up every two warp yarns alternately in order to create the counter shed. The spiral continuous heddle is made & after the warp is on the loom. Spiral heddles are only used for weaving extra weft techniques.

At the same time weaver must maintain the balance between body and warp firmly. They do this by forcing the wooden supporter called Tukeng from the leg. They no longer push against their backstrap. Once the balance is firmed then the weaver can lift the heddle rod and heddles creating a loose shed. In such way they weave the cloth.

In an active motion of weaving, all the movements in weaving are made by the weaver. The weaver changes the natural shed, by moving the shed roll forward and back again with the help of leg force on wooden support. The loom and the weaver’s body make the warp pulled straight, and then weaver moved forward the shed roll to form shed. When the shed form in front of weaver, Tappin is inserted and twisted from Sumpa and after twisted, again it is moved backward to change the shed. When the weaver moves forward and backward the shed roll, lifting up and down the heddle rod from warp, leaning back in backstrap and force the legs straight on wooden support indicates the complete motion of their weaving.

Moving the body with changing the shed in an alternating order is their process of weaving on a backstrap loom. The pickup of the warp with the help of heddle causing a change between the counter and natural shed. Once the weft yarn is thrown through one of the sheds, the alternate warps keep the weft tied down when the shed is again changed. Repeating this process creates a plain weave cloth. The position and motion of the weaver’s body control the shedding device and enables to pass the Tappin inside counter shed. Thus, the control of the warp by the weaver’s body, is an important factor in the weaving process.

After warping, the weaver selects a location to set up the loom which is comfortable. Because of their backstrap loom with a continuous warp they can be easily set up, and keep rolled after each weaving which is moveable. All these factors comfort the lifestyle of their women. After finishing the warping process, the weaver arranges the warp in a systematic way like working with their skill and patient fingers over and under the warp, inserting the rolls, rods, and sword in their proper places. From the above to bottom Kitam, Rulbung, Tatnge, Sumpa and Gekong are placed. This work is followed by the removal of warping frame. The warping frame is used in order to maintain the loop, heddles and shed. Now the backstrap is put on to secure the cloth beam. The cloth beam is setting up according to the space available for weaving.

The weaver repairs and solves the problems in the warp before weaving work started. They also adjust warps that have become tangled and twisted around each other. The warps with irregularities and mistakes are called Panem. Once this is done, weft thread is used called Penana. A Penana is inserted into every warp shed. Once the warp is clear of any problems, the weaving work started.

One of the important devices of weaving is Itam which is a piece of bamboo wood, carved into a flat stick with either end sharpened to be a pointed. These pointed are then inserted into the selvage of the cloth to keep them parallel. Itam is used by the weaver because if the weaver is weaving randomly, the weft may be tight across the warps. Once it is beaten and the shed is changed, the selvage will appear inwards. Doing this as unequal intervals is a sign of a poorly skilled weaver or a beginner. They regarded parallel selvage as good textile.

Physical position and arrangement is also matter for weaving or in the loom. The back has to be straight, shoulders should be squared, neck straight, face down, and legs should be firmed in the wooden support in front of the weaver. The weaver thighs have to be straight and their knees must rise to relax. The body movements must be flowing, not bouncy, otherwise this will cause unparallel of selvage in warp.
The technique of weaving begins with the correct position of the Tatnge. Because without Tatnge counter shed is unable to create. It is made from bamboo as a simple small piece. Same thing is used for making designed in warp which is called Ngeyi. The process of coil yarn in Ngeyi is called Anam or Aliknam which is a difficult procedure for the inexperienced weaver. An exact measure is essential in order to maintain an even distribution of the thread within the Tatnge. If it is not done correctly then every time Tatnge will mismatch with shed. This is significant because if the Tatnge does not release the shed regularly and pulls into the salvage then it will not be paralleled.

The heddles used to make patterns are different from the heddles used to make the plain weave. The heddles for pattern have a flat formation or seem like a small sword. They are added after the warping is completed and the loom is set up, unlike the main heddles which are inserted during the warping process. These heddles and accompanying rods may be added at any time during the weaving process. The patterns that run across the entire textile are woven with the help of supplementary heddles technique.

The following is a description of traditional weaving by hand:

1. Make a counter shed by shake Rulbung, Tatnge and Kitan at once.
2. Insert Tappin from right to left in created shed.
3. Beat tightly from Sumpa and salvage it.
4. Put Itam on salvage
2. Lift up Tatnge from one hand and other hand press down Kitan with Rulbung. It created alternate counter shed -insert and back the Tappin from left to right, -beat and tight again.

After weaving the cloth up to a suitable distance, the pressure of warp is loosen and the woven cloth is pulled down towards the cloth beam and thus woven cloth move lower the loom and the free portion goes up. When the whole warp is woven leaving only about six to seven inches then it is cut out from the middle of the unwoven yarn. This technique is used in any weave process of one up and down until any pattern is woven. It takes nearly six to seven days to complete one loom. Weaving of decorative design takes more time depending upon the size and nature of the design. Generally the design is done by using different colours warp by using extra weft method.

**Conclusion**

Northeastern India including Arunachal Pradesh is famous about the traditional weaving technology and role of women in making this professional lively and viable. The intricate motifs and designs, the combination of colours, all reflect the social status and ethnic origin of the people.

Women are the custodians of the knowledge, and to the elaborate process of spinning, dying and weaving. Verities of culturally important traditional dresses are made by women using experiential wisdom. Weaving and related art are considered to be significant attribute for any tribal Adi women in Arunachal Pradesh. The loom that is traditionally used is the loin loom and the colours used are organic colours, prepared largely from the plants that grow in the forest and the designs used in dresses are dependent on cultural variability of tribal community.

The warping method of Adi who inhabitated in boundary area of Assam is slightly different from the warping method used by the rest of Adi. It because of influenced of Assamese warping. They preferred to weave supplementary weft designs, and the long plain, striped, and checked textiles favoured by the weavers. However both the weavers wove all the textile types.

In over all complete weaving process, their loom reflects the numbers of possible dissimilarity and limitation of weaving. The length may be some meters, depending on the weaver's strength. But generally plain weave and strip are up to ten meters in length. The width of the cloth is limited because of the body structure. But in common, the width of cloth is not longer than the length of a weaver's arm.

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