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FIBER AND LEATHER PRODUCTS OF THE JUHENA TRIBE OF SAUDI ARABIA And How They Are Made

Joy May Hilden

The Juhena tribe in the northwestern region of Saudi Arabia, the Hijaz, live in coastal towns and villages and in remote, jagged mountains inland, parallel to the Red Sea coast. The coastal area has absorbed diverse cultural influences because of its proximity to Africa and Egypt and its location on an ancient trade route, on which Muslim pilgrims travel to the holy cities of Makkah and Medina. Some members of the tribe, such as the Egyptian-born mayor of Umlaj, have their roots elsewhere and have been adopted by the Juhena.

Coastal inhabitants are settled, semi-nomadic and nomadic, and survive by herding, fishing and trading. Some engage in trades such as saddle-making and metal-working. In town, the government hires office workers, guards and drivers. There are schools, hospitals and utilities which support workers. In the surrounding desert, nomads roam but still send their children to school near town. Some women who demonstrated fiber art techniques for me lived part-time in town and the rest of the time in huts on the outskirts; they raised sheep, goats and chickens.

In contrast, the Juhena living in the mountains are relatively isolated semi-nomads, living in villages and settlements. Only recently in history have those living in the larger villages started using concrete houses, in addition to the traditional tents, though they use stone buildings for grain storage. Herding and agriculture are their means of support. They keep herds of camels and goats, and grow wheat and dates. Both women and men engage in agricultural work. In recent years some electricity has been brought in, and owing to motorized transportation, more goods and services have become available. The village of Shabaha is a hub for fifty other villages and settlements administered by a branch of the regional governorate. It has schools and a clinic with a doctor and a nurse on duty full-time. The road into the mountains is rocky and treacherous; travelers seldom venture there. The remoteness of the area has helped to preserve an ancient way of life, vestiges of which remain.

I had the good fortune to visit this part of the Hijaz three times. In 1989 I spent a day in the coastal town of Umlaj and the desert area nearby. In 1992 I visited the region for two weeks, mainly in Umlaj, with a day in the mountain area of Shabaha, as a guest of the Saudi Arabian Royal Commission and the Umlaj Municipality.¹ During this time, I had the opportunity to meet a variety of people of various ethnic, tribal and racial backgrounds. I observed a number of demonstrations of spinning, weaving and leather work. I visited private collections of artifacts made of many materials. My brief stay in Shabaha on a cold winter day persuaded me that I must return in warmer weather when the women would be spinning and weaving and I could observe them. Again the Royal Commission hosted me.



A hidim, used on a goat pen, is woven with spun cloth strips. Shabaha, 1994.

A surprising aspect of all these visits was that none of the crafts which I saw demonstrated or in use by families was available in any markets in the Umlaj area. It appeared that the local people made these crafts only for themselves and their families. Only one village, near the industrial city and oil port of Yanbu, far to the south, sold any artifacts. Here there were many handsome and exotic old leather pieces and a few woven products for sale at exorbitant prices aimed at foreign workers.

Leather

I attribute the extensive use of leather for both functional and decorative purposes to the abundance of goats and sheep in the region; goats particularly thrive in the mountainous Hijaz. Also, African crafts, which make use of a lot of leather, have influenced the artifacts of the region.



Bag face made of twined and braided leather, with tiny lead beads, cowrie shells and tin. Note weft-twined portion in center of lower photo.

Until the 1950s, there were African slaves in Saudi Arabia. I met an extended family of former slaves who still practice a wide range of crafts, including leather work. Abdul Muti, a member of that family who worked as a guard for the governor's office, had made a little museum of his family's crafts, which he proudly showed me.

All manner of functional items are made of goat, sheep or camel leather, including large storage bags, buttermilk churns and containers for milk and water. Other items are both functional and decorative, such as women's crowns to hold down head shawls, necklaces, belts, coffee bean bags, purses, cushions and camel-riders' leg cushions with intricate knotting and tassels. Some flat pieces with backings of weft twining are purely ornamental. Items may be decorated with braiding, tassels, buttons, pieces of metal, shells and lead beads.

Why discuss leather items in the textile category? Most of the decorative pieces I mention above are made of very thin strips of leather which have been twined, knotted or braided: the leather is handled in the same manner as yarn. Nura, a woman between sixty- and seventy-years old, demonstrated the technique of leather preparation and braiding for me. I saw two old women, the mothers of the bride and the groom at a wedding in Shabaha, who were wearing some leather pieces. No younger women wore such things, and I doubt if any of them know how to make them. A woman in her seventies sold me a number of pieces she had made in her youth. They were soaked in goat butter to keep them pliant.

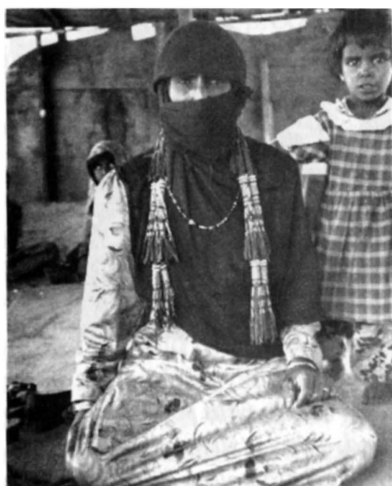
Nura was staying at her little place on the outskirts of Umlaj when I went to watch her demonstrate some crafts. Her one-room wooden shack was surrounded by a *barasti* (palm branch) fence with a covered cooking area in one corner. She showed me how to weave palm

leaf baskets, making strips that would be sewn together. Then she cooked up a leather dye and explained her technique for preparing leather, as follows:

- a. Clean the leather by scraping it with a knife to remove the hair.
- b. Prepare a red dye bath by beating the bark of the *shiih* tree between two stones and cooking it for three to seven days.²
- c. In another pot soak the leather in the strained dyebath for three days.
- d. Remove and shake the leather, then return it to the pot for three more days.
- e. Rinse and dry the leather; it is now ready for use.

Another technique produces a dye which can be used for leather or wool. It makes a dark brown color by using rusted tin cans and *shiih* or *irta* leaves. Bark and roots of the *sidr* tree may also be used. The dye bath is cooked at least one and one-half hours, depending on the depth of color desired.

Nura showed me how to cut a whole sheepskin with scissors, several one-eighth-inch wide strips at a time, in a circular direction around the hide. This produced long, continuous strands, which were then rolled into balls ready for braiding, knotting or weaving. Nura started a tiny four-strand braid, holding it firmly over her big toe and pulling on it to tension it. Two strands were held in each hand. The top strand on one side was brought across to the center of the other side. Then the top strand on the other side was moved the same way, and the process continued.



Juhena woman wearing a chest ornament made of braided and tasseled leather with lead and glass beads. Shabaha, 1994.



A Juhena woman making a thin leather braid. Note large scissors used to cut leather and three balls of narrow leather strips under her knees.

Weaving, Spinning and Fiber Preparation

The weaving of the Hijaz, where I did this segment of my research, is unique in Saudi Arabia. No place else in the Kingdom have I seen the traditional warp-faced weaving technique of the Beduin used with spun cloth and teased threads. Weaving with strips of discarded cloth is common throughout the world. What makes it surprising in the mountains of the Hijaz is the isolated location and relative lack of contact with the outside world.

The usual types of weaving among Arabian nomads are sturdy warp-faced pieces using wool, goat hair, cotton and some camel hair. The yarn is very tightly spun and plied on hand spindles and woven on ground looms. In markets in central and western Saudi Arabia I have occasionally seen rugs and saddlebags from the Hijaz woven with naturally

gray or beige yarns dyed with plant or commercial dyes to create subtle colors. Woven items also made in the Asir, the very mountainous province south of the Hijaz, include rugs, camel trappings, women's storage bags of various sizes and shelter and tent walls for interior and exterior use. They are sometimes used as rugs and measure two to three feet wide and are as long as twenty feet. Some of these items have decorative patterns, usually in weft-twined ends, but sometimes in complementary warp patterning.³

In Shabaha I saw only the simplest kind of weaving, much of it using spun cloth strips and teased threads. There were women's storage bags of wool or spun cloth strips, tent panels and rugs, *hidim*, in striped plain weave; all were devoid of ornamentation such as weft twining or complementary warp patterning. The mountain people have limited resources and make use of everything at hand. Commercial dyes are expensive and hard to find there and plant dyes time-consuming to make. However, some women still know how to collect and use dye-producing plants. In fact, more seem to know of and use natural dyes there than in the average population. I observed three techniques in which materials were reused ingeniously, giving color options without the necessity of using dyes.

I visited Magbooleh, a woman about forty-years old who lived in a concrete house with a courtyard surrounded by plywood walls and ceiling. She shared some of her textile knowledge and told me she used the following dye plants:

- a. Bisham tree bark, which produces red.
- b. Henna for orange.
- c. Sidr tree bark for green.
- d. 'Irn tree bark for black.

Tent walls and shelters made of spun cloth were the primary type of weaving I saw in Shabaha. There were also storage bags made that way. This technique is not unique in the Arab world; I have seen a couple of isolated pieces in other countries. I saw a little saddlebag on a moped in Syria, and a sling used for climbing palm trees in Oman made of cloth strips woven in warp-faced weave.

The recycled cloth with which the women of Shabaha weave is first torn into strips and then spun on hand spindles, overlapping the ends and spinning them together. The technique used in spinning and plying is the same as for wool. Sometimes the sides of the cloth strips are teased, pulling out warps to create a fuzzy effect with the protruding wefts. This gives a stronger grip to the spin. Magbooleh demonstrated by cutting some cloth I provided, approximately one inch wide, then teasing it so that one-quarter inch of cloth was left in the middle. She teased the ends to be joined, so that they held more firmly. The cotton strips without teased edges were smoother but thicker. She cut a piece of cloth into a continuous strip by making the cuts around the edges of the rectangular piece so that joins would not be necessary. The spinning process moves quite fast, except that there has to be much pulling and adjusting of threads in the spinning and joining process.

Another way of reusing cloth is by teasing the wefts and warps apart completely so that they return to the status of threads. These threads are mixed in desired color combinations and spun together as one would spin fleece. The effect in finished weavings is



Magbooleh, with spindle in right hand, spins a strip of torn and teased cotton cloth. Shabaha, 1994

similar to impressionist painting. Teased threads are also combined with fleece or hair of any kind and spun together.

The three techniques of cloth spinning described above can produce beautiful color combinations and general effects. An imaginative weaver can produce an artistic finished piece, regardless of the humble materials.

The weaving is executed on a ground loom using the same procedures as are used with wool yarn. Spun cloth is used for weft. The finished piece is heavy and thick. A *hidim* is usually the same size and proportion as other Arabian tent wall strips, approximately twenty feet long and two feet wide.

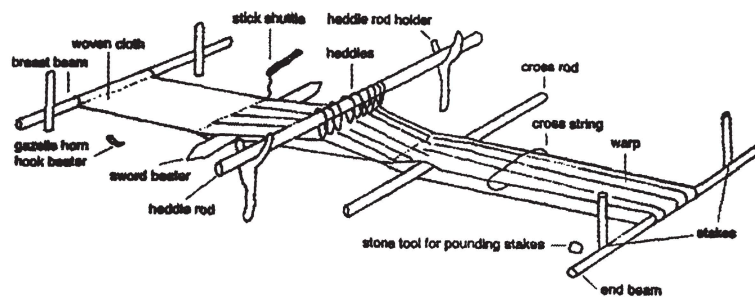
The weaving and spinning activities I observed in Umlaj were a combination of traditional Beduin techniques with local variations. I saw no weaving with cloth strips there. The tools were extremely rough and simple. Loom parts and tools were made of rough sticks. A spindle might be a simple unfinished stick with a nail in it, and a sword beater would be rough and splintered. Nevertheless, they were able to produce decent quality goods.

Um Alfaraj,⁴ the old woman who demonstrated weaving and spinning, and who is Abdul Muti's aunt, used a ground loom with a different kind of heddle rod holder than is traditionally used in Arabia. Usually the heddle rod is held up by blocks or cans; hers was supported by forked sticks buried in the sand. Whereas normally the heddle assembly is simply moved forward as the weaving progresses, in this case new holes were dug and the forked holders reinserted. Both in Umlaj and Shabaha, I observed heddles being made during the warping process. A technique used elsewhere is to add them after the warp is finished. A woman in Shabaha made heddles with the continuous warp yarns, which I had not seen previously. Um Alfaraj in Umlaj made heddles of contrasting yarn for each warp as she went along, in a technique different from anything I had ever seen.





Um Alfaraj, together with Nura and her daughter Saida, worked in the sandy courtyard of her stone and concrete house outside of town. They drove four reinforcing rods into the ground against which to tension the warp rods. Then they dug holes for the forked heddle rod supports and buried them six inches deep. The continuous warp was "walked" back and forth by Nura, holding a large ball of goat hair yarn. Saida looped the yarn under and over the end beam. Nura guided a loop of the warp over the cross rod and under the heddle rod and gave it to Um Alfaraj, who then slid the loop over the end of the breast beam, on which she sat. Um Alfaraj picked up a ball of orange yarn on her right and made a heddle by looping it under the upper warp and over and around the heddle rod. The cross was made by bringing the top warp under the heddle rod and under the cross rod so that it now became the bottom warp (see diagram). The process is cleverly devised so that the ball of yarn never left Nura's hands. In the usual method of warping, the ball of yarn would be handed to the women at each beam for them to lift the beam and place the warp over and under it. With the warping completed, Um Alfaraj started the first rows of plain weave, correcting her warping and heddlng mistakes as she went.

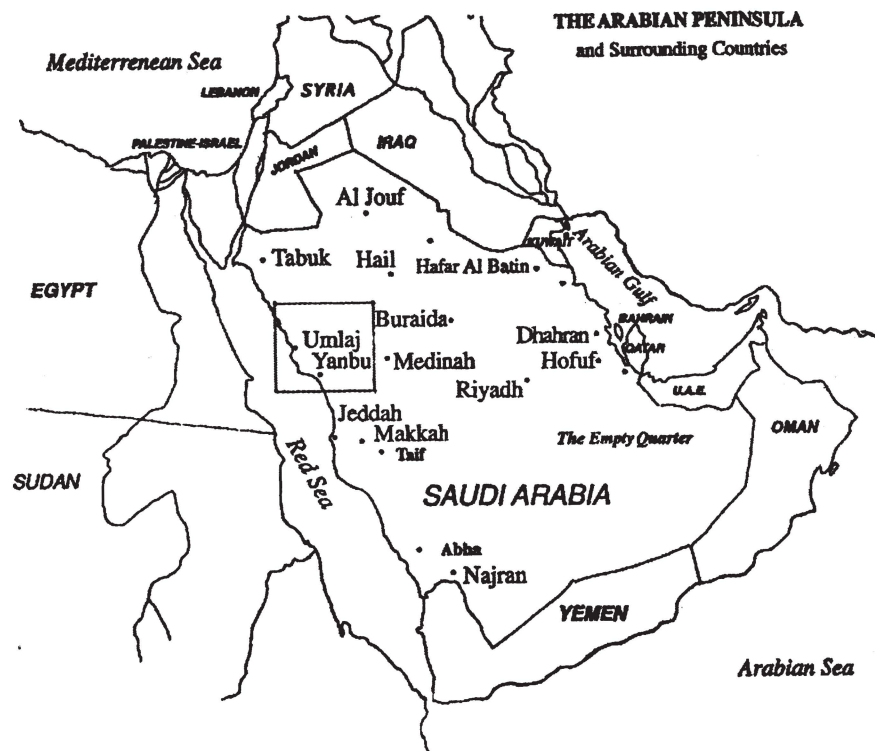
Spinners in that family held the spindle and distaff in a different position from the average Saudi Arabian spinners, who turn the spindle in their right hand, usually slightly downward to the right, with an open palm, while the left hand guides the stream of fleece; the distaff is held under the left armpit. (In other Umlaj families and in Shabaha, spinning was done this way.) Abdul Muti's family members held the distaff under the left knee as they sat on the ground. The spindle whorl pointed downward at a forty-five degree angle to the left, the shaft held high in the right hand.⁵ I saw no spinning in Shabaha that resembled the variation described in Umlaj. In the same family, one member held the

GROUND LOOM USED BY JUHENA FAMILY IN UMLAJ



PROCEDURE FOR WARPING AND HEDDLING THE ABOVE LOOM

1.  1. Warp is passed under heddle rod as a loop
2.  2. Warp loop is slipped around breast beam
3.  3. Top warp is placed under cross rod and lower warp over it.
4.  4. Heddle yam is caught under top warp, over heddle rod, then in a circular direction toward front of loom. Ball of yam reels next to weaver until next bout.



A Juhena woman of Umlaj demonstrates weaving on a ground loom. Diagram at left shows details.

spindle in various ways, sometimes palm up and sometimes palm down, but always producing an S-spin, Z-plied yarn.

Plying is done uniformly throughout Saudi Arabia, using a hand spindle like one used for spinning. The shaft is turned vertically backwards along the right thigh, with the whorl up. The left hand guides the two singles yarns into the spin. Most often, the spinner has already wound them onto the same ball.

A demonstration of fiber preparation in Umlaj was the most thorough of anything I had seen in Saudi Arabia. Spinners most often use uncleaned fleece without a distaff. A woman from Abdul Muti's family cleaned a whole bag of white and black goat hair by beating it with a supple palm branch about three feet long. Um Bareeka squatted or sat on her legs on a concrete patio, the hair in a pile in front of her. She held the stick firmly in her fist over the pile, brought her arm back from the shoulder until it was parallel to the ground, then whacked the stick smartly on the goat hair. She repeated this process for about twenty minutes, moving the hair when a pile of sand, droppings and plant matter dropped to the concrete. The beating not only cleaned the hair but fluffed it up.

Twisting the hair into roving was the next part of the process, and for this she was joined by Fatima. Fatima held a one-by-two inch stick eight-to-ten inches long into some smoothed hair to form a loop around the stick and began to turn it as Um Bareeka fed more wool into the stream. Fatima continued twisting and walking backward until the roving was about six-to-eight feet long and three-to-four inches in diameter. She then took the stick out and folded the roving over itself in three parts, causing it to twist around itself into a tight bundle. The bundle, about eighteen inches long and thirteen inches in circumference, was ready to be carried by the spinner or inserted into a distaff. Three bundles were made from the bag of goat hair. The goat in question is a native type whose coat is a coarse, woolly fleece, not quite hair and not exactly fleece.

Fatima, a young woman perhaps in her thirties, demonstrated the making of two kinds of braids, and Um Alfaraj, an eighty-year-old showed me another.

1. Fatima made an eight-strand black and white braid in a chevron pattern, flat on one side and rounded on the other. She had spun the black goat hair the night before, and had spun the white cotton herself. The yarns were plied and rolled into balls for ease in handling.
2. Fatima and Um Bareeka collaborated in making a miniature goat hair halter with a loop on one end and a split further along. It started as a four-strand braid, with the women working away from the center. When there was enough for a loop, the two ends were combined, creating an eight-strand braid with a loop at the far end. When it was time to make the split, they worked in tandem on four-strand braids, then combined them again to continue the halter. The procedure created a flat braid.
3. Um Alfaraj created a six-strand braid in black goat hair, which was similar in technique and shape to Fatima's black and white one. She folded three long warps in half over her big toe, neatly winding them alternately over their opposites, then proceeded with the first step.

I have mentioned here only a few of the crafts I have seen in the Hijaz, both contemporary and old. I did not describe basketmaking techniques, since they are common all over Arabia; in fact similar techniques are practiced in Asia, Africa and the Pacific islands.

I found it interesting that the terminology used by my informants in Umlaj and

Shabaha for tools, techniques and products differed, which might be attributed to the difference in their cultural and ethnic origins. There were also some differences in language use between the Hijaz region and the rest of Saudi Arabia.



Two wool women's storage bags, ferdeh,(sing.) hang inside a tent. A folded, striped, spun-cloth hidim sits between them. Shabaha, 1994.



Two hidims separate the rooms of a family's shelter. Shabaha, 1994.



Detail of spun cloth hidim shown in photo, above left.

NOTES

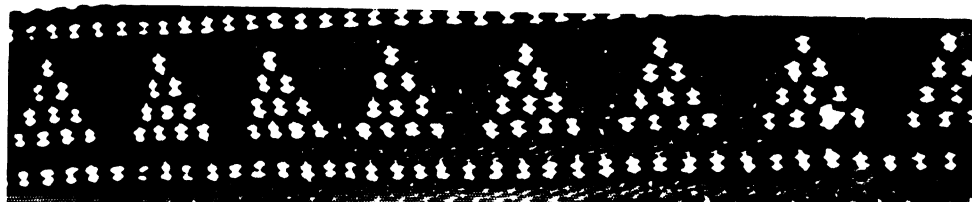
1. The Royal Commission governs the industrial cities of Yanbu on the western Red Sea coast and Jubail on the eastern Arabian Gulf. His Royal Highness Prince Abdallah bin Faisal bin Turki Al Saud, the governor of the Royal Commission, arranged for the second two trips to this region, which fell under his jurisdiction.

2. For more on dyes, see Terms

3. The term *complementary warp pattern weave* describes a structure used in Beduin weaving throughout the Arab world. Emery initiated its use in *The Primary Structures of Fabrics*. Rowe suggests it is not accurate (p. 59) and recommends using Wertime's phrase, "warp-faced plain weave with warp substitution" (pp. 45-46). I use the term *complementary warp patterning* to simplify the language.

4. The word *Um* means mother, and is often used before the given name of a woman's oldest son instead of her own name, a courtesy to the mother. Hence "Um Alfaraj" is the mother of Alfaraj.

5. Crowfoot, Grace M. *Methods of Hand Spinning in Egypt and the Sudan*, pp.10, 11, plates 4, 5, 6 and 7, show a similar way of holding the fleece at the left knee by Sudanese women of the Hadendowa and Kababish tribes. However, they do not hold the spindle the same way as the Juhena women of Umlaj of African background.



Complementary warp patterning, *bukar*.

TERMS USED IN UMLAJ AND SHABAHA

Arabic words in right column are used in Shabaha

Loom Parts:

breast beam - <i>ga'</i>	
cross rod - <i>magsam anfoos</i> ,	<i>mahaffah</i>
cross-string - <i>giladi</i>	
end beam - <i>ras</i>	
gazelle horn (hook beater) - <i>thabi</i>	
heddle rod - <i>neera</i>	<i>minyar</i>
heddle rod holder - <i>shigaba</i>	
heddles - <i>magsam al neera</i>	<i>neera</i>
loom - <i>sadu</i>	
stakes - <i>mismar</i>	
stick shuttle - <i>lihma</i>	<i>milham</i>
stone tool for pounding stakes - <i>dams</i> ,	<i>shageeg</i>
sword beater - <i>manshaz</i>	

Weaving Terms

beating fleece or hair to clean and fluff it - <i>matrook</i>	
beating with hook beater - <i>howk</i>	
bundle of fleece ready for spinning - <i>loweeya</i>	
complementary warp patterning in black and two colors producing a pebbly effect - <i>bukar</i>	
complementary warp patterning in black and white - <i>magla'gh</i>	
distaff - <i>tighzala</i>	
four-strand braid - <i>majdool</i>	
spindle - <i>mighzil</i>	
spinning - <i>ghazal al souf</i>	
stick - <i>matrak</i>	
teased threads	<i>nifsh</i>

teasing apart threads in cloth:	<i>tashab</i>
twisting fleece or hair into roving - <i>malween</i>	
weft twining - <i>haksy</i>	<i>fathin</i>

Dye Plants

irn tree - bark produces black
 bisham tree - bark produces red
 henna bush leaves - orange
 'irta, a plant of buckwheat and rhubarb family, also called 'abl, whose twigs are used in leather tanning and dying; the leaves produce black.
 shiih tree, *Artemisia herba-alba* - bark produces red
 sidr tree, *Zyzyphus Spina-Christi* - bark produces green

General Terms

dividing curtain, tent wall - *magta'*
 double saddlebag - *khurj*, *muelhi*
 halter - *mahgoobah*
 large women's storage bag - 'ukoom
 long camel ornament hanging over shoulder or rump - *safaif*
 multi-purpose strip used as shelter *hidim*
 women's storage bag - *ferdeh*

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