

TELAS DE LOS MUERTOS

by Sue Baizerman.

The textiles of Pre-Columbian Peru are well-known, especially in the art world and in the world of fiber artisans. They are unexcelled in terms of intricacy, design, color and craftsmanship. The textiles have survived to the present for two reasons: First because the dry desert of coastal Peru provided the perfect storage conditions for textiles, organic materials which are ordinarily destroyed by moisture. Second, the textiles have survived because of the ancient burial practices—the deceased were dressed for eternity, often in elaborate costumes. Hence, we are entitling this series of articles on the textiles of ancient Peru "Telas de los Muertos" — Cloths of the Dead.

In the series we will be describing in detail the fascinating techniques used to create textiles found in the approximately 150 specimens, mostly fragments, in the Science Museum of Minnesota's collection of ancient Peruvian textiles.

These techniques, however, did not exist in a vacuum. As an introduction to the study of techniques, we would like to examine certain questions. How did ancient burial practices evolve? Why did the art of fabric making reach this almost unbelievable level of achievement? The answers to these questions leads us back to a look at cultures in which weaving played a paramount role—not only in its functional dimensions, but as an art form, as an economic resource, and as a means of communicating religious, political, and military information.

It is necessary to delve very far back into Peruvian pre-history to trace the development of textile arts. This journey takes us back before the Inca empire. (Surprisingly, the Inca Empire lasted only about a hundred years before the Spanish Conquest in 1532 AD.) We rely on the work of archaeologists to help us reconstruct the beginnings of fiber-craft in Peru, dating back before 3000 B.C. during what is called Pre-Ceramic times.

Keep in mind that Peru is a land of great geographic diversity: the towering Andes, the tropical eastern jungles, and the narrow coastal desert divided by river valleys. (See Fig. 1.)

The earliest fiber artisan probably lived along the coast of Peru, gathering foodstuffs from rich marine life and plants. At some point, bits of wild cotton were collected and drawn into a continuous thread. These threads were then fashioned into nets for fishing or cloth of twining or simple darning. The early craftsman must have been pleased with the new, light, flexible fabric produced (compared with the coarse products made earlier of bast fiber or skins). Very early, too, the artisan discovered the decorative potential of these yarns and depicted religious or mythological creatures in twined fabrics. Already then (and this is of great importance) fabrics had more than strictly utilitarian value. Demand for them grew. The quantity of wild cotton available could not keep up with this demand and means of cultivating cotton were initiated. Some say that the demand for cotton spurred all agricultural development in Peru—that it was one of the first, if not the first cultivated crop! While cotton was developing in coastal regions a later parallel development of wool yarn occurred in the Peruvian Highlands: the llama and alpaca were domesticated. Without the presence and development of these indigenous plant and animal fibers, there could have been no ancient Peruvian textiles.



Figure 1

Chronology:

- Pre-Ceramic: Until 2000 B.C.
- Initial Period: 2000 B.C.—1400 B.C.
- Early Horizon: 1400 B.C.—400 B.C.
- Early Intermediate: 400 B.C.—500 A.D.
- Middle Horizon: 500 A.D.—900 A.D.
- Late Intermediate: 900 A.D.—1476 A.D.
- Late Horizon: 1476 A.D.—1532 A.D.

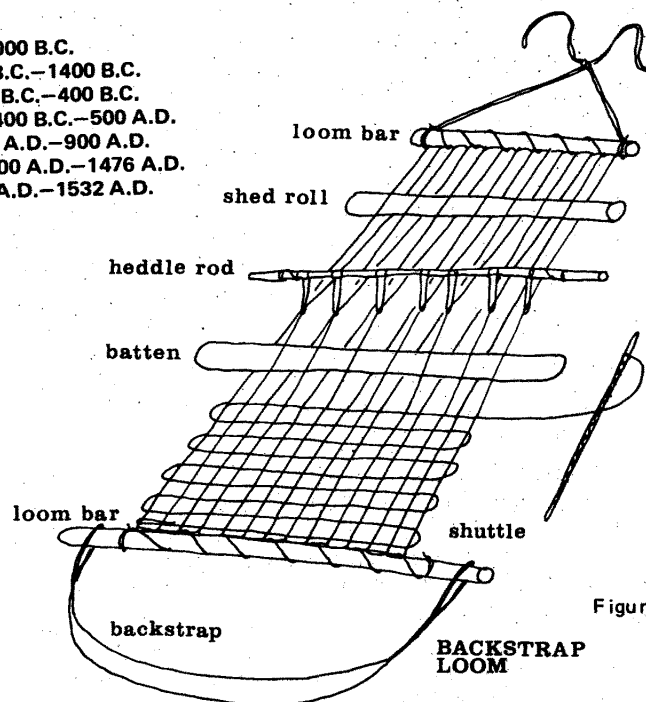


Figure 2

The next phase in Peruvian pre-history, called the Initial Period (ca. 2000 BC–1400 BC) is potentially the most interesting because all major developments related to the fiber arts occurred. Sadly little has been uncovered about the steady progression from simple, twined, and darned textiles, to the complex fabrics found by the beginning of the Christian era. We do know that during the Initial Period the agricultural way of life continued to expand. Expanding agriculture can support increased population and ultimately more leisure time can be freed. With more people and more time, cultural institutions which add to life's quality e.g. —religion and the arts, can develop.

These looms produce a fabric with four selvages. Weaving progresses from both ends of the loom and ends in the main body of the fabric. The final rows, what is called the terminal area — are darned in with a needle; this area is often visible in the finished cloth. Ancient Peruvian clothing was composed of combinations of these usually rectangular-shaped loom products. Typically men wore a breech-cloth, shirt, manta, kilt; women wore a one-piece dress and manta. In addition there were head gear, belts and small bags. At least in later times, clothes were decorated with symbols for occupational rank and other designations such as military. Many bags and cloths were used for household storage and carrying purposes and there is some indication that some large-pieces served as wall hangings. Dolls are also found in Peruvian graves; these are probably not toys but of more powerful and symbolic significance.

Well before the beginning of the Christian era, almost all the techniques the Spanish would find when they conquered Peru would be developed—textures from dense piles to delicate gauzes; techniques ranging from tapestry to double cloth, supplementary weft, warp and weft patterning—nearly every textile technique known to man.

In the intervening years between the beginning of weaving and the arrival of the Spanish, there were hundreds of cultures with distinctive art styles in Peru. These art styles were expressed not only in weaving but also in other forms of material culture—such as ceramics and metalwork. Some of the many cultures were located in the Andean highlands. Some were settled along coastal Peru in fertile river valleys. For the most part, they lived in relative isolation trading with others for goods; cotton from coastal areas, wool from the highlands, feathers from jungle areas.

However, on three separate occasions there were cultures that gained widespread prominence throughout Peru. First was the Chavin culture, emanating in the Northern Highlands, called the Early Horizon (1400 B.C.—400 B.C.). It featured distinctive jaguar and serpent motifs. Its influence was felt in all later periods. Especially well-known are the later Nasca and Paracas textiles which bear a strong imprint of Chavin style.

Later the Huari and Tiahuanaco expansions affected wide areas in southern Peru and in the Highlands. This period is called the Middle Horizon (500 A.D.—900 A.D.). Still later the Incas extended their influence over a very broad area.

By Inca times textiles were an important medium of exchange, for instance, between people within a given community to commemorate important life events: Textiles were also exchanged between the citizen and the governing officials for "tax purposes." Vast storehouses of textiles were maintained by the government for distribution to the military and other citizens deserving of reward.

Each of the many Peruvian cultures produced garments with different representational and geometric designs. We may speculate on their meanings but will never know them for certain. Design appeared to be paramount over techniques as the same designs are frequently found executed in a variety of techniques, even on one fabric. Reciprocal, interlocking motifs were popular as was the use of very strong, bold colors.

One cultural institution which developed in these ancient times was elaborate burial practices. Perhaps a form of ancestor worship, the dead were bundled up to go to the after-life with many of the same possessions they used in life (often including yarn, spindles and samplers if they were weavers). They were dressed in their finest clothing, perhaps specifically woven for funeral purposes. Fiber arts apparently continued to serve an important role in symbolic communication as in Pre-Ceramic times, for example to depict mythological or religious themes decorating clothing for the dead. Interments in the desert coastal areas have survived as mummies due to the absence of damaging moisture and have produced nearly all the Peruvian textiles in the world's museum collections.

Because of the great demand for woven goods, fabric production apparently consumed almost as much time during the day as food production. Everyone was probably involved in the production of textiles for everyday family use. Production of textiles for religious purposes may have been the community's task. Looking at the fantastic rate of development of fibercrafts technology during the Initial Period, it is theorized that occupational specialization in fabric production had occurred. Likely, certain people cultivated cotton and served as shepherds for wool bearing animals. Others may have spun the wool and cotton into yarn. This is no ordinary spinning: the standards for spinning were extraordinarily high. Yarns had remarkably consistent diameters, some tightly twisted, some very loosely spun, each designed to suit perfectly the cloth they were to constitute.

The same high quality was evident in the dyer's art. A wide variety of natural dyestuffs was being exploited including indigo, cochineal, madder, purpura mollusc with mordants such as alum, iron, and urine. These were applied to the natural shades of cameloid fleece, increasing the range of colors possible.

Further occupations associated with the fiber industry might have involved getting supplies to the various artisans and construction of spindles and loom parts.

There were probably also professional weavers judging from the vast quantities of cloths produced. (In later Inca times, the Virgins of the Sun wove for Inca nobility.) While yarns and dyes were being perfected, advances were also being made in weaving technology. Most importantly, refinement of the backstrap loom took place, specifically the development of the heddle. Many discrete thread manipulations were replaced by a single motion when the heddle rod was added to the loom, increasing textile output tremendously. This in turn allowed for increasingly complicated patterning techniques to be developed.

Basically, this loom consists of two sticks to which a continuous warp (the vertical threads) is attached (see Fig. 2). One end of the loom is tied to a stationary object, like a tree. The other is secured around the weaver's waist or hips by means of a strap. Tension on warp threads is controlled by the weaver's movements. One, or sometimes, more, heddle rods, attached by yarn loops directly to the warp can be raised to create openings for insertion of the horizontal weft thread. Another opening is created by manipulation of the shed rod. A batten beats weft into place. While the backstrap loom was probably the most widely used loom, it is likely that the vertical loom and the staked out ground loom were also used, as they are today, in the area.

Assigning textiles to particular cultures poses many problems because of a long history of grave robbing in Peru, separating pieces from their original contexts. In many cases we can only conjecture, based on designs, yarns, colors used. The majority of textiles in the collection in the Science Museum of Minnesota probably date to the Late Intermediate Period, that Period between the Huari—Tiahuanaco expansions and the Inca domination.

We are now in a position to examine in greater detail the "Telas de los Muertos."

KNOTTED WEFT WRAPPING

The ancient Peruvians seemed captivated with the notion of creating airy, delicate fabrics often embodying animal and geometric symbols and designs.

The height of the use of these fabrics was the Late Intermediate Period in the area of the Central Coast, particularly in those textiles from the state of Chancay. These fabrics appear to have been used as mantas or shawls or as other types of funereal wrapping. Knotted weft wrapping is one form of openwork. Other forms include conventional single element, knotless netting; spaced, sheer plain weaves; the various gauze weaves; and plaiting. Knotted weft wrapping is perhaps the one form of ancient Peruvian openwork that is more uniquely Peruvian. Included in the Science Museum's collection are 15 examples of knotted-weft wrapping.

Usually when we think of netting, such as fishnets, we are thinking of single element techniques. Knotted weft wrapping, however, is made of two elements—warp and weft. The advantage of the loom-made net is that it can be combined with other weaving techniques during construction. Furthermore, it is the natural recipient of applied decoration.

The Structure of the Fabric

The fabric is composed of spaced pairs of warp intersected by spaced pairs of weft. One of these wefts is passive, merely taking an over one, under one (plain weave) path across the warp. The other weft encircles its more passive partner either with a simple knot or wrapping such as illustrated in Fig. 3. The resulting fabric is a mesh with an established size (as opposed to the stretchy products of knotless netting).

If the same warp pairs are knotted (or wrapped) together on successive rows, the mesh will be composed of square or rectangular openings. If the warp pairs are separated and re-paired before knotting or wrapping on successive rows, the result will be triangular spaces (see Fig. 3).

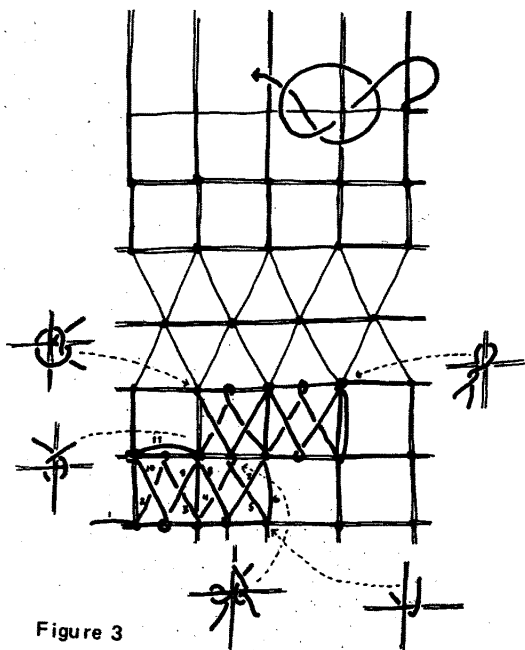


Figure 3

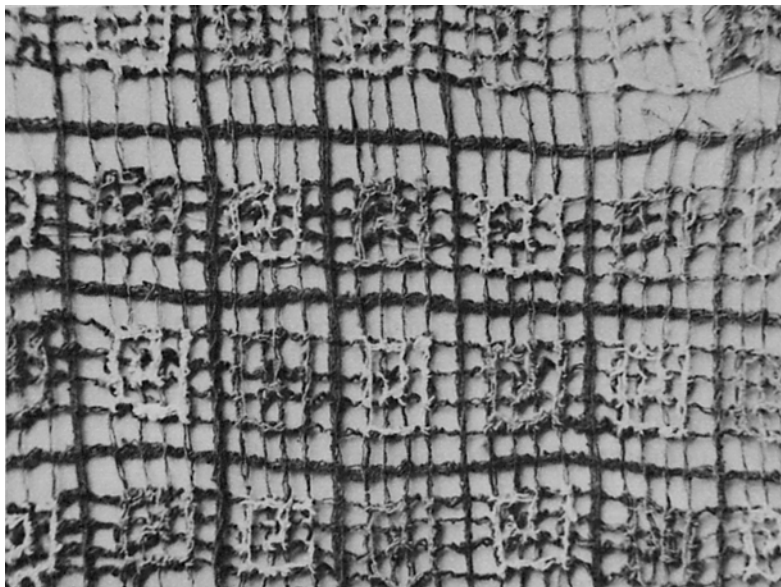


Photo 1 — Science Museum of Minnesota No. A72-24-36d

Materials

The Peruvians used for their knotted nets a most wonderful fine single ply cotton yarn. It was, naturally, handspun and of a hard twist (overspun), usually S-spun. It was this kinky texture of the yarn which helped hold the knot or wrap in position.

Embroidery was applied with yet a finer thread. Several strands of this very fine thread often outlined design elements. The embroidery thread was usually single ply spun with a Z-twist, that is, with a twist opposite to the base cloth yarn.

Introducing Pattern to the Openwork

1. The simplest way to vary the square mesh is to introduce extra warp and weft ends at intervals. Two of the Museum's examples would fall into this category, in combination with embroidery (see below). They are brown, white, tan, and dark blue in color. (See photo 1.)

II. Patterning may also be introduced by the use of square mesh next to the triangular mesh. Often embroidery would emphasize the design. The Museum has no example of this variation.

III. Embroidery may be used to define the design motif. Most of the examples (12) of knotted-weft wrapping in the Museum's collection are executed in this way. (cover photo) Embroidery is worked on a square mesh ground in a consistent configuration, square by square. (See Fig. 3.) The stitch is related to what is commonly called the herringbone stitch. The Museum examples are all done in white and average 8–10 warp and weft ends (4–5 pairs) per inch.

Embroidery is most often thought of as work done on completed, off-loom fabric, But there is no reason why stitches could not be applied while the fabric is in process, on the loom, under tension.

IV. Tapestry may also be worked on the warp elements of the mesh, providing a dense woven surface in contrast to the airy openwork. The Museum has one example of this technique. (See photo 2.) It is done in wool in a range of colors; red is the background color. There are 28 warp ends per inch and approximately 140 shots of weft per inch!



Photo 2 — Science Museum of Minnesota No. A76-18-9



Photo 3 — Science Museum of Minnesota No. A72-24-14a

V. Another way of patterning this openwork fabric was to interlock both warp and weft, following a technique often called scaffold weaving. Here, warp and weft of the same color are used in one design area. They interlock with warp and weft of another color in adjacent areas. Probably the separate warps were woven as wefts on a temporary warp (scaffold) before the final weft was knotted in. The triangular mesh is produced. The Museum has two fragments executed in the technique. (See photo 3.) They are likely originally from the same cloth. Colors used are shades of brown, black, and white. There are about 35 ends per inch and about 3 picks per inch. Weft in this technique is inserted singly, not in pairs.

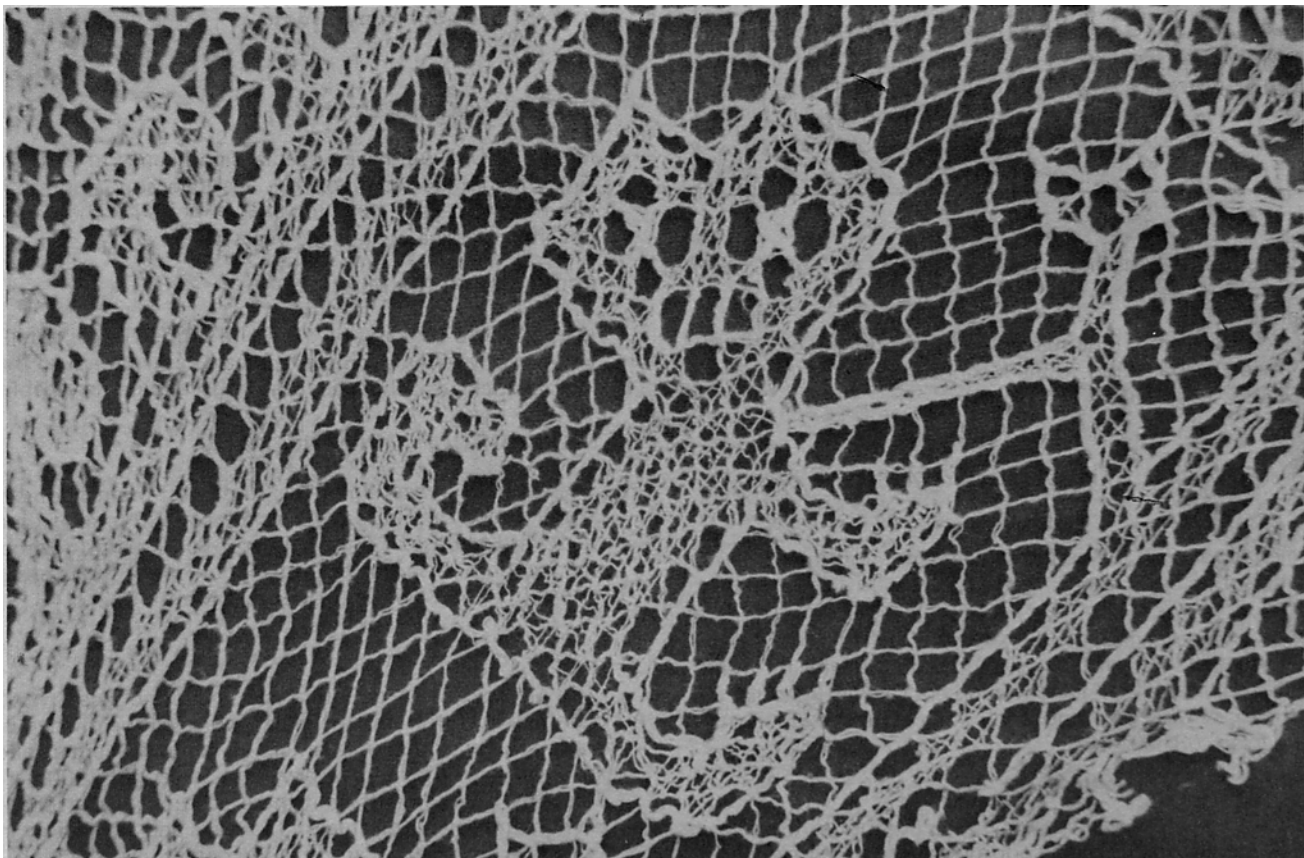
VI. Feathers or leaves and conceivably other "accessory objects" can be tied to the knotted fabric. There are no examples of this in the Science Museum.

VII. The fabric may be painted after embroidery is applied to give emphasis to the design. The Science Museum has no examples of this technique.

Design Considerations

There are both representational and geometric forms depicted in knotless netting. The former are designs such as birds (most typical), human-like forms, fish, cats and snakes. Geometric designs usually conform to the rectilinear weaving format.

For Weavers: To weave knotless-weft wrapping, set up your loom to weave plain weave, but leave empty dents (or holes and slots) between pairs of warp ends. The first weft shot would be inserted using one of your plain weave sheds. Instead of putting your next weft shot into the opposite plain weave shed, the weft is knotted around pairs of warp ends as in Figure 3. Since this is an open weave, it is best to use yarn with considerable body, such as linen, for the background weave. Embroidery could be done with any yarn—cotton floss, silk, wool, etc. The knot used could also be adapted to many other purposes in your weaving, for example, when you would like a group of warp ends drawn together as in Brooks Bouquet.



Science Museum of Minnesota No. A76-17-9

Knotted Weft Wrapping with embroidery

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THE MINNESOTA WEAVER

Published monthly except July, August, and December

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Weavers Guild of Minnesota

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DATES TO REMEMBER

Thursday, September 8, 9:30 a.m. Board Meeting
Saturday, September 10, next Minnesota Weaver deadline.
All copy due at Guild office.
Thursday, October 6, 1:00 p.m., First Fall Guild meeting

For details see "COMING UP" on page 1.

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