

TELAS DE LOS MUERTOS

SUPPLEMENTARY WEFT TECHNIQUES by Sue Baizerman with Karen Searle

One way in which a plain weave cloth may be embellished is by the insertion, during weaving, of additional yarn. These yarns are not vital to the structure of the cloth and are called "supplementary wefts." Since the resulting embellishment may resemble embroidery, they have sometimes been called "embroidery weaves." Indeed, in some instances it is difficult to determine if a particular cloth decoration is embroidered on after weaving or inserted during weaving.

Both embroidery and supplementary weft techniques are found among ancient Peruvian textiles. Interestingly, during cultural periods when embroidery is used a lot, supplementary wefts are seldom used. And, conversely, during those periods when supplementary wefts are popular, fewer embroidered textiles are found. (One is tempted to speculate about what this means since each manner of the embellishment affords different forms of expression for, and poses different limitations on, the artist/craftsperson.)

While cloths with supplementary weft patterning are found at least as far back as the Early Horizon in Peru (1400-400 B.C.), those in the collection of the Science Museum of Minnesota probably date to the Late Intermediate Period (about 900-1476 A.D.). During this period supplementary weft techniques were very widely used. It is not surprising then that a sizable portion of our collection—24 items—are woven using supplementary weft techniques. A few additional textiles, such as some crossed warp weaves and tapestries, have some secondary supplementary weft ornamentation.

Structure

Supplementary weft patterning is one of the most basic ways to enrich a cloth since it involves the addition of only one extra element to the weaving of plain cloth or what can be called the "ground weave."

The easiest way to add a supplementary weft is to insert it in the plain weave shed along with the ground weft. This type of supplementary weft, pictured in Fig. 1 has a brick-like internal pattern formed by the warp ends that pass over it. It is a technique familiar to hand loom weavers often called "inlay." Usually inlay is woven with a balanced plain weave ground, the same number of warps per inch as weft insertions. Interestingly this plain-weave inlay type of supplementary weft is not, to our knowledge, found in ancient Peruvian textiles. Probably this is due at least in part to the type of loom used (backstrap) and the difficulty with this type of loom in obtaining a balanced weave.

Instead we find that in the Peruvian pieces, the supplementary wefts float over more than one ground warp. For example, we do find the brick-type of alternate alignment of supplementary wefts, but instead of going over 1 warp thread, under 1 warp thread as in Fig. 1, we find the supplementary wefts passing over 9, under 1; or over 10, under 2 as in Fig. 2. The effect of these long floats is illustrated in Photo 1. The tiedowns (the points at which the supplementary wefts are secured into the ground weave) are hidden by the loose floats. An all-over satiny surface is created. Almost no supplementary weft shows on the reverse of this fabric. There is a definite right and wrong side.

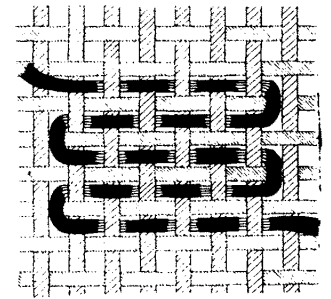


Fig. 1: 1/1 brick (aligned in alternation)

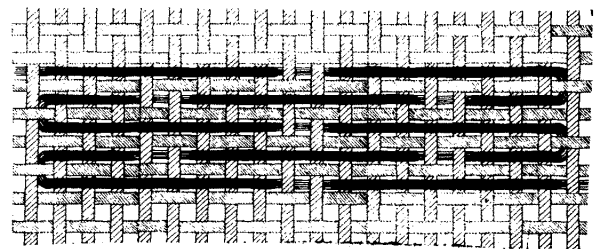


Fig. 2: 8/2 brick (aligned in alternation)

Sometimes supplementary wefts are inserted in pairs instead of singly into the ground weave, as illustrated in Fig. 3 and Photo 2. Structurally this arrangement is very similar to the handweavers' summer and winter weave. (Cover photo)

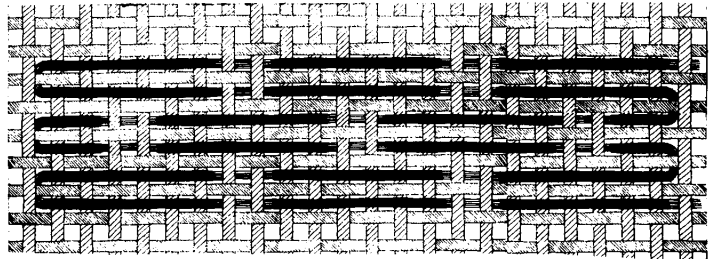


Fig. 3: 6/2 brick (paired floats aligned in alternation)

Another typical supplementary weft technique used by the ancient Peruvians creates a tapestry-like surface. The supplementary yarns are in alternate alignment as in the weaves just described, but the alignment produces a rib rather than a brick pattern. Supplementary yarns may float over 2, under 2; over 4, under 4, etc. The pattern formed is completely reversible. See Photo 3.

They may also be inserted on an open shed. The resulting texture while basically the same as that produced on a closed shed, may be quite dimensional, raised up on the surface of the cloth. See Photo 4. In this instance the rib pattern appears on the right side only.

The rib type of supplementary weft is also found on fabrics with a leno ground. This fabric was illustrated in the October 1976 issue of *Minnesota Weaver*, "Telas de los Muertos; the Crossed Warp Weaves," page 11, Photo 1 and Fig. 2.

The techniques we have discussed may be "loom controlled." The handloom may be set up to select the tie down thread for the supplementary weft.

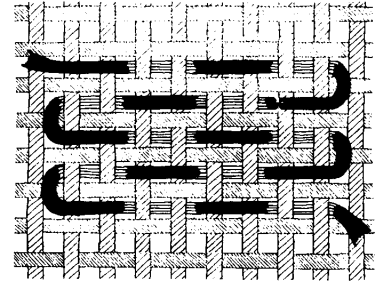


Fig. 4: 2/2 rib (aligned in alternation)

There are other supplementary weft textiles in the collection where the shed for the supplementary wefts cannot be loom controlled. Each shed must be made with some sort of pickup stick or tool. The resulting supplementary weft patterning is referred to as free weft float patterning. It is shown in Fig. 5 and Photo 5. Threads to tie down supplementary wefts are selected individually on a closed shed.

The wefts in all the techniques described in this section on Structure may be continuous or discontinuous. If supplementary wefts are continuous they extend from selvage to selvage. In the Peruvian textiles, if a supplementary weft is continuous it floats freely on the back of the fabric between design areas. (This is in contrast to other parts of the world where the supplementary weft may be placed in a plain weave shed between design motifs.)

Supplementary wefts may also be discontinuous. In this arrangement, each design motif has its own strand or bobbin of supplementary weft which is worked back and forth over a given portion of the total warp.

All of these supplementary weft techniques have been used or are being used throughout the world. For example, the rib weave is used in Guatemala and in parts of Europe and the Balkan Region. Paired floats such as illustrated in Fig. 3 are found in Mexico and the Scandinavian countries. Free weft float patterning can be found in almost any corner of the weaving world. The brick arrangement of supplementary wefts with the long floats, Fig. 2, is more uniquely Peruvian.

Another structure found in many parts of the world features supplementary wefts arranged vertically in columns, separated by thin lines of ground weave (Fig. 6). It is known in Sweden as Dukagang and is a popular weave in Guatemala as well. It is one of the easiest of the supplementary weft techniques to execute because only one additional heddle control is needed for supplementary weft sheds. Oddly, we have not found a Peruvian textile done in this technique.

For instructions on weaving these different supplementary weft techniques on backstrap, frame or floor loom, the reader is referred to Baizerman and Searle, *Latin American Brocades, Explorations in Supplementary Weft Techniques*, St. Paul, Dos Tejedoras, 1976.

Materials

There is remarkable consistency in the materials used in the textiles with supplementary wefts. The ground cloth is always cotton, two ply, white or brown (with the exception of one red ground). Generally the yarn is Z spun, S plied. The supplementary weft is always two-ply cameloid wool, with the same spin and ply as the ground weave. The yarn for the ground cloth is medium to hard twist and sett so that the warp is predominant. Warp ends range from 36 to 52 per inch; ground weft insertions, 16-27 per inch. In some white cotton ground weaves, the yarn is very fine creating an airy, delicate background for the supplementary patterns.

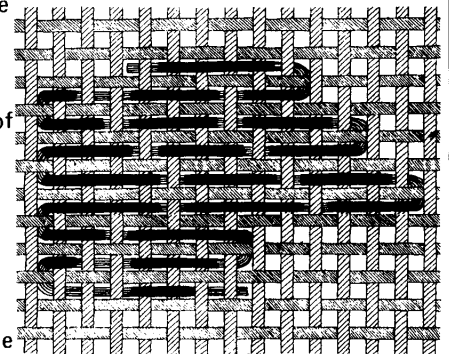


Fig. 5: Free weft float patterning, discontinuous

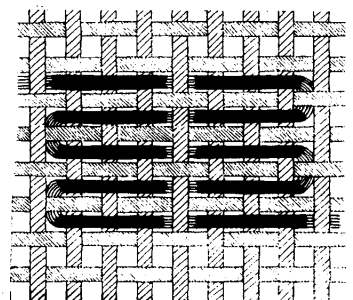


Fig. 6: 3/1 columns (aligned vertically)

The supplementary weft yarn is typically very loosely spun and plied. At times the yarn appears upon close inspection to be hardly spun at all. This type of spinning is another reflection of the ancient Peruvian's ability to suit the yarn beautifully to the purpose for which it was intended. A loosely spun and plied wool can be compressed between the yarns of the plain weave ground, but at the same time can expand in design areas to create a thick surface.

In addition, some of the cameloid wool yarns used in the supplementary weft textiles have a beautiful luster—almost silk-like—that adds to the overall impact of the fabric surface.

Design

Most of the supplementary weft fabrics in our collection are decorated with typical small bird, cat, and geometric motifs. Colors, too, are familiar: red, gold, yellow, pink, white on brown or white background. However, there are several textiles which stand out from the others. All are decorated with human figures and are woven in the brick alignment with long floats on a fine, airy ground weave (Fig. 2, Photo 2). Two fragments are decorated with very large figures. The large size of these designs make them very unique to our entire collection of ancient Peruvian textiles. Several other fragments with human figures are smaller in scale. All the figures have rather ornate head gear (helmets?). Similar figures are pictured in books on other Peruvian textile collections; they appear on the front of poncho shirts. The larger figures may have been some form of hanging interior decoration.

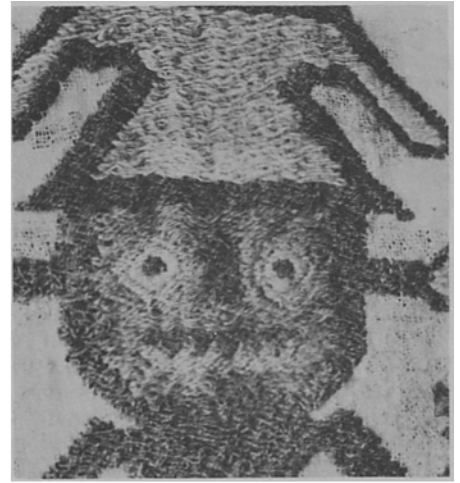


Photo 1: SMM A 73:13:8 8/2 bricks

Photo 2: SMM A 71:11:5 6/2 bricks on back cover



Photo 3: SMM A 74:17:39 4/4 ribs

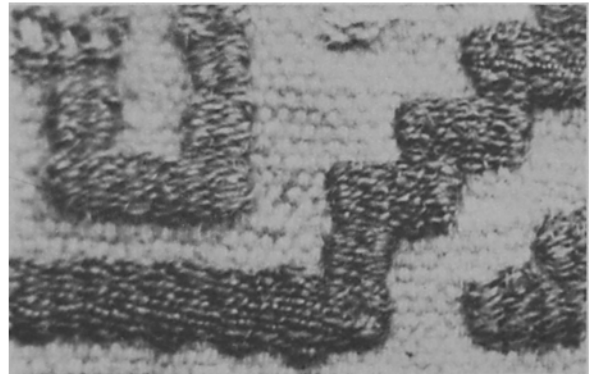


Photo 4: SMM A 74:17:66 4/4 ribs on an open shed

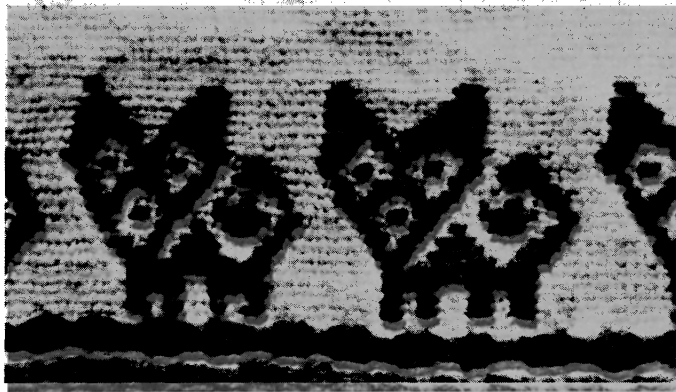
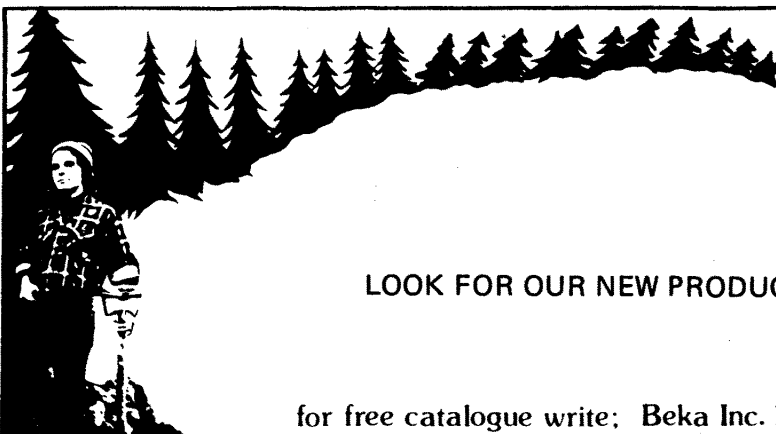


Photo 5: SMM A 72:24:36h
Free weft float patterning



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Thursday, February 2, Film Program at 1:00 and at 7:00
 Thursday, February 9, 9:30 a.m., Board Meeting
 Friday, February 10, workshop—"Weaving for the Home"
 Thursday, February 16 and Friday, February 17,
 Craft Day Exhibit

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