

ANCIENT PERUVIAN TEXTILE ARTS: Patchwork and Tie-dye from Pachacamac

By INA VANSTAN

Digging up the past includes more than the actual spade work with the essential on-the-spot record keeping and the basic interpretations undertaken in the field. It involves, also, detailed analyses of any materials collected, analyses which must be made in the laboratory and followed by observations and interpretations based on the findings. Frequently, due to the highly specialized and time consuming aspects of the task and to its non-remunerative and non-spectacular nature, the time spans between the former and the latter parts of this work are undesirably long. This is notably true of studies of the artifacts, especially the textiles, which comprise some of the major collections in our large museums. An example of this may be seen in the wealth of materials gathered by the late Max Uhle at Pachacamac in 1896-1897

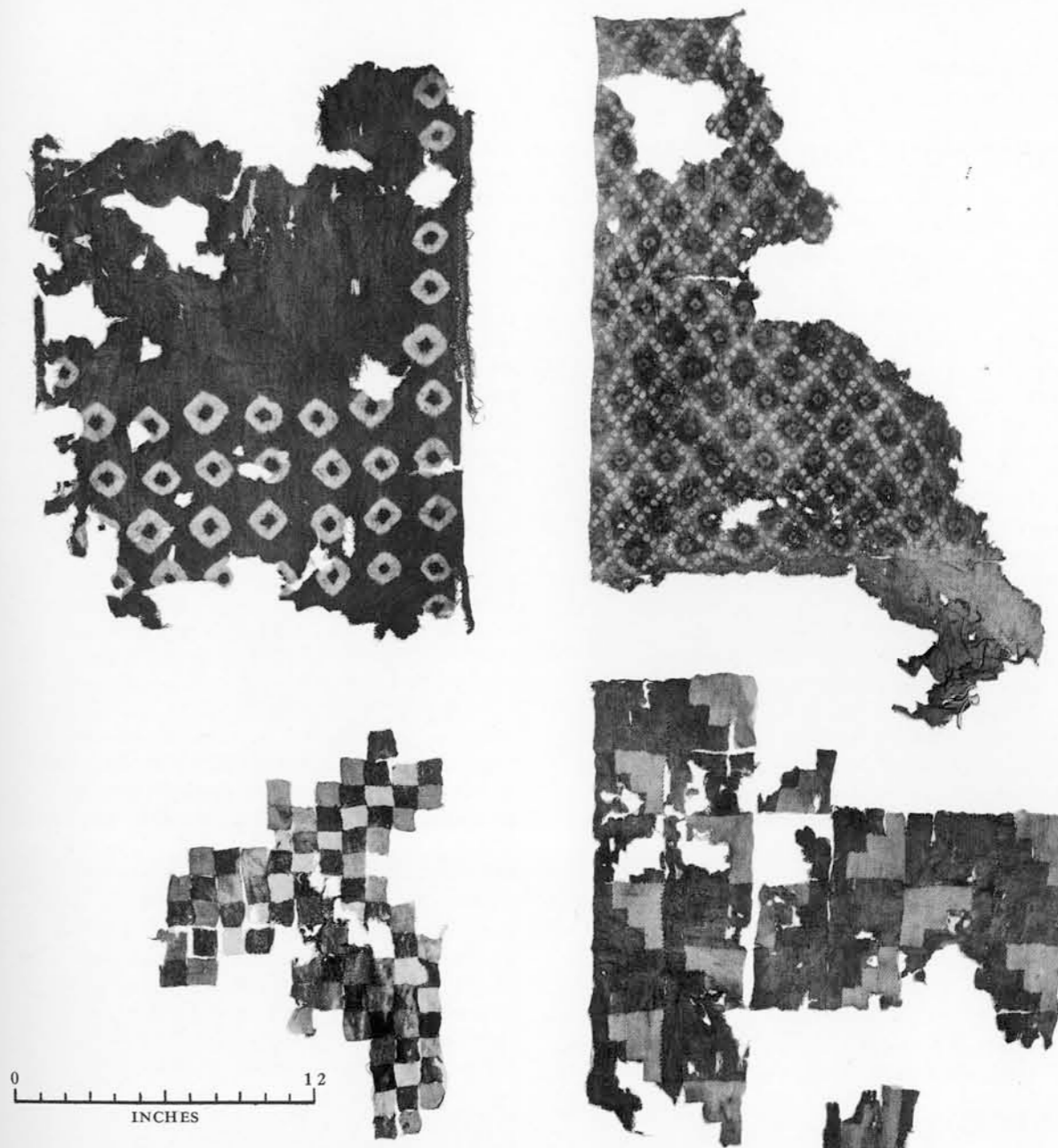


(The William Pepper Expedition), which forms a considerable part of the University Museum's Peruvian collection. After Dr. Uhle's return to Philadelphia and the preparation of his general report, *Pachacamac*, published in 1903, he moved on to new fields, and since that time no full-scale study of the artifacts has been undertaken. Fortunately, Uhle's knowledge of the materials which he handled was exceedingly broad. His notations on his textile finds reveal an ability to observe detail and a familiarity with textiles

and textile techniques which is seldom equalled by modern archaeologists, who, at least theoretically, are better trained and better equipped for field work than were those who served as the pioneers of South American archaeology.

Uhle mentioned various groups and classes of textiles in his published report and dealt with the weaves and the patterns of a few specific examples, but since his interest was in the determination of sequential classifications, which he based largely on the nature of the designs, his attention was centered upon the decorative features, especially as these showed close relationships to the designs found in ceramic and other non-textile materials. Thus the plainer fabrics came in for scant attention in most cases, more being devoted to the colorful tapestries and embroideries, to some of the pattern weaves, and to painted cloths. This does not mean that Uhle overlooked the other textile techniques used by the Peruvians. He has identified many of these by name or description and commented on the probability that others existed which were not represented in the Pachacamac group. Among the former, Uhle mentioned briefly the techniques of patchwork weaving and tie-dye patterning. In his published report, he showed and described only one specific specimen within these categories, a single fabric displaying both patchwork weaving and tie-dye (*Pachacamac*, Fig. 31, p. 32), but he indicated, by his field catalogue entries, his awareness of other examples.

Something of the range of the Peruvians' interpretation of these two processes may be seen by a comparison of the construction and design of the one fabric shown by Uhle and four others from his collection in which the two techniques have been used separately instead of in combination. The latter examples all came from the part of the temple enclosure which Uhle designated as "beneath the Temple of Pachacamac." Three of the four have been woven in the simplest one-over-one plain weave; the other varies only in having the warps grouped in pairs. None shows any evidence of the techniques classed as pattern weaving. Two specimens are of cotton, two of wool (from the native camelids, not sheep). One woven in each of these fibers is a tie-dye



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Textile fragments from beneath the Temple of Pachacamac. (Upper left) Woolen cloth with tie-dye pattern in red and white. No. 30296a. (Upper right) Brown and white cotton tie-dye fabric in which slight undulations resulting from the tying remain in the cloth. No. 30211b. (Lower left) An example of patchwork weaving in which very fine, single-ply cotton yarns have been used for both the warps and the wefts. No. 30214. (Lower right) One of the commoner patchwork types of ancient Peru; this particular cloth is of wool. No. 29991a.

fabric, in which a pattern has been formed by means of the arrangement of numerous small hollow circles reserved in a light tint against a darker ground of contrasting color. The other two cloths, likewise one of wool and one of cotton, are patchwork textiles, in which the patterning has been produced by the use of a series of very small, independent webs of differing hues

joined together to produce a larger cloth.

These fabrics were woven with selvages on all of their outer edges, as was customary in Peruvian weaving, the warp yarns as well as the wefts turning back along the cloth edges. With this mode of weaving, the production of the tie-dye cloths, which were patterned after the weaving

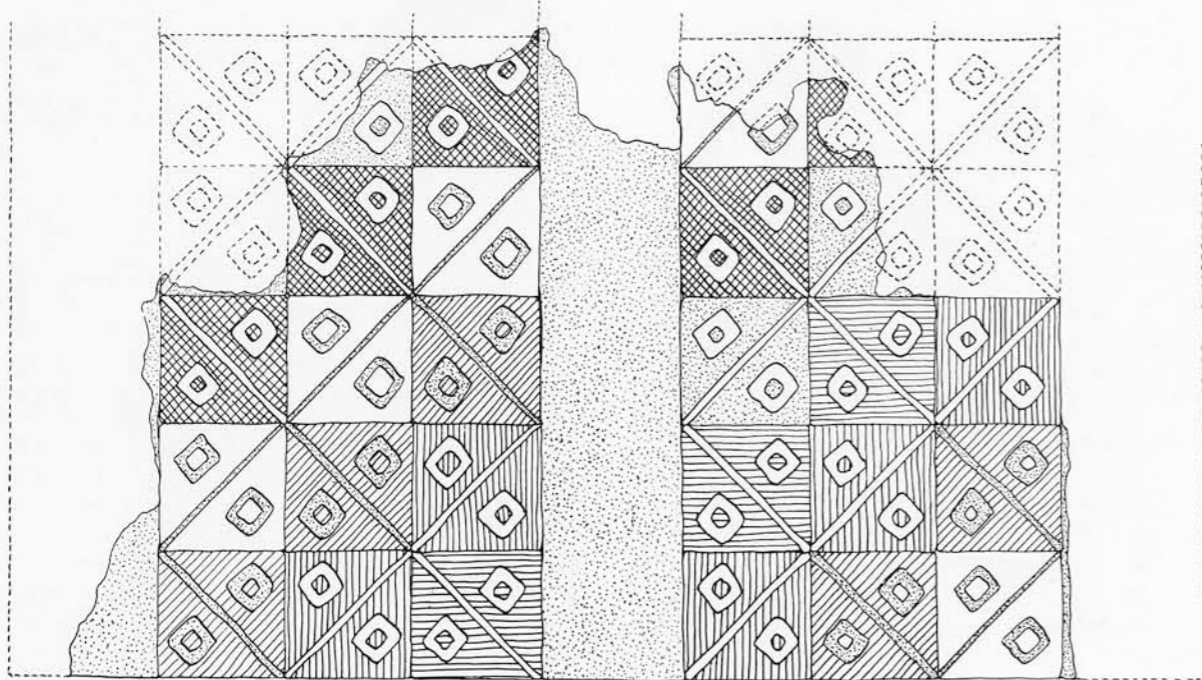


Diagram of the patterning and layout of the larger of several fragments of a patchwork-tie-dye fabric from Pachacamac. No. 29780.

had been completed, was obviously simpler for the weaver than the making of the many small webs which were required to produce a patchwork cloth.

For example, the cotton tie-dye fabric from the present set was woven in a four-selvage rectangle about twenty-two and one-half inches long and nineteen inches wide. This was a piece of plain cloth, much like today's tobacco shade cloth, of unbleached cotton, not so closely woven as sheeting nor so open as cheesecloth. Judging from the appearance of the fabric, the pattern was produced by picking up and tying bits of the cloth tightly with thread. These tyings were arranged in rows, following intersecting diagonal lines, to produce an all-over pattern of diamond-shaped figures. Next, a slightly larger bit of the cloth was tied up in the center of each diamond. Then the whole piece was dyed light brown. After this the center ties appear to have been removed and these spots, with the area immediately surrounding each, were dipped, one by one, into the dye a second time, or possibly dye was painted onto these parts of the cloth. This resulted in a darker brown area surrounding a very light brown circle with a darker brown center. The untying of the remainder of the threads left the small circles forming the diamond figures in the cream-white of the original cloth. The use of this method is confirmed by tiny peaks or inden-

tations remaining in the cloth, so that each small brown dot rises above or drops below its surrounding circle, depending on the side from which the cloth is viewed. The patterning is slightly more distinct on the surface on which all of these protrude than on the reverse face.

The fabric of the woolen tie-dye example is heavier and firmer in texture than the cotton. The design appears in the form of comparatively large white circles against a red ground, and the "circles" are more nearly square than round, as if the cloth had been folded before being drawn together by the cords used in tying. While the smaller circles of the brown cotton cloth are only one-fourth inch in diameter, these average one and one-half inches and the patterning has been placed at the end and along parts of the sides of the cloth only.

The two patchwork fabrics display equally strong contrasts. The cotton cloth is composed of a series of tiny squares. The size of each of these independently woven, four-selvage fabrics is approximately one square inch. Each is of a solid color, blue, brown, beige, or cream-white, and has been woven of extremely fine yarn, with ninety-six warp yarns, used in pairs, and forty-eight weft yarns per inch (as compared with forty-six and thirty-six, respectively, for the cotton tie-dye piece, thirty-six and eighteen for the wool patchwork, and fifty-six and eighteen

for the wool tie-dye). Following the usual procedure for Peruvian patchwork weaving, these squares have been joined together at their ends by means of a common weftwise yarn passing alternately through the warp loops of adjacent squares, and the resulting strips, each one square wide, have been sewed together with whipping stitches.

The woolen patchwork cloth, although more complex, appears to be of a somewhat commoner type. Each "patch" is a small step-triangle, two of which fit together to form a rectangle about two and three-fourths inches long by three inches wide. These rectangles have been joined together in a manner similar to the preceding, the small steps of the triangles being treated in the same manner as are the other end and side selvages. Thus, each triangle has eight selvage edges, no unfinished edges. The warp or end selvages are joined to the adjacent group by means of a common weft yarn and the sides sewed together, as with both the square and rectangular blocks. Each of the triangles is of one color only: a light gold-color, rose-red, brown or blue-green. Two combinations of these colors have been used in the rectangles, either gold with rose, or brown with green, and the contrasting rectangles have been arranged alternately throughout the cloth.

The example presented by Uhle, in *Pachacamac*, and designated in the field catalogue as from "a third burial place, near the western field," shows more complex hook-shape sections, two of which make up a rectangular block as in the previous example. The added tie-dye design includes not only the conventional hollow circles seen in the other tie-dye pieces, but also a continuous wavy line, parts of which are on each half of the block.

There is, in the same collection, another patchwork-tie-dye specimen in which both lines and hollow circles have been used in the design. This cloth, like those showing separate use of the two techniques, is from beneath the Temple of Pachacamac. Its patchwork blocks are simple squares, each measuring approximately five inches both warpwise and weftwise. The colors in both this and the specimen shown by Uhle are about alike and are more numerous than in the other examples. Both show cream-white, yellow or gold, red, purple, and two blues. Despite the larger number of hues, as with the other tie-dye examples cited, no more than two colors appear in any one web.

From these observations a few generalizations may be drawn. Certain principles of construc-

tion were adhered to in the production of the patchwork cloths. The weaves were plain. The individual blocks were rectangles or irregular shaped halves of rectangles. All of the edges were finished by selvages and followed warp or weft lines, so that all angles were right angles. Each individual web was woven of a single color. These webs were joined to produce color contrasts. The methods of joining the blocks showed little variation. Both cotton and wool yarns were employed but, presumably, were not used together. Tie-dye was introduced as a means of producing decoration, in some instances but not all, and was applied to both simple and complex blocks. Although shading was present, no more than two hues were included in the patterning of any one web. The use of tie-dye was not confined to one fiber, nor to patchwork fabrics, but appears also on much larger single webs.

It seems most likely that further studies of materials from this site will reveal exceptions to these generalizations, as have textiles from other sites. Certainly, they must be considered to be hypothetical until a great deal more work has been completed. Perhaps, with added analyses, it will be possible to show a pattern of development for these two quite specialized techniques, and with these a clearer picture of one small segment of the material culture of these people who left us their artifacts but no written records. While from these few specific examples, one begins to see evidence of the orderly patterns of work which result from established usage, these can be only glimpses until such time as all of the available evidence can be spread out before us. Unfortunately textiles are highly perishable. Even today losses of evidence in the field and in our museums are high, and the practices of man and the climatic conditions of the world have provided few areas from which archaeological textiles have been preserved. Despite this, the volume of untouched work waiting in our museums is tremendous.

Certainly, in working with textiles, it takes both dirt and desk archaeologists to complete a "digging" and more patience and time than most people choose to expend in studying the jigsaw puzzles of the past; puzzles for which many of the pieces are known to be lacking and beyond recovery. It is always tedious to toil through the fine details which are needed to confirm the most carefully worked out hypotheses and one must be prepared for the disconcerting findings which fail to confirm and often refute a previously accepted scheme, or may merely add ragtag data which fit nowhere.