

PUCARA AND TIAHUANACO TAPESTRY: TIME AND STYLE IN A SIERRA WEAVING TRADITION

William J Conklin

Introduction

Relatively little emphasis has been placed on the importance of the evidence provided by textiles in providing clues toward the solution of some of the larger problems of Andean culture history. This paper presents the direct evidence available for the beginning of the sierra interlocked tapestry tradition, as well as indirect evidence of its existence. The direct evidence consists of Pucara and Tiahuanaco textiles. The indirect evidence consists of the presence on the south coast of Peru, during the Early Horizon, of materials and processes that seem to have come from the highlands. The analysis of the data for this sierra interlocked tapestry tradition produces a tentative stylistic sequence and also has implications for other aspects of Andean culture.

This early tapestry tradition of Pucara and Tiahuanaco seems to have been highly influential in both of the later empires that emerged to the north of the altiplano: the Huari empire, named for its capital site, and the Inca empire, named for its rulers. Huari tapestry tunics, though in general technically and iconographically coherent with Tiahuanaco weaving, achieved an aesthetic independence and power of expression that carried the prestige and status of Huari over much of the south and central coastal areas of Peru. The design characteristics of typical Huari tapestry tunics have been defined (Sawyer, 1963), the weaving methodology studied (Bird and Skinner, 1974), and an early fragment analyzed (Conklin, 1970). Inca tapestry tunics have had their repetitive patterns analyzed (J. Rowe, 1979) and their technology analyzed (A. Rowe, 1978). However, no chronological sequence has been established for either Huari or Inca tapestry. The proposed stylistic sequence for Pucara and Tiahuanaco tapestry may assist in resolving this and other related problems. The methodology of stylistic sequences, the creation of a logical ordering of undated materials between datable ones, was pioneered for Peruvian archaeology by John Rowe in his work on Chavin (1962) and by Dorothy Menzel in her work on the ceramics of the Middle Horizon (1964).

The single most telling characteristic of this entire highland tapestry tradition is the use of weft interlocking in the creation of the designs. I have argued elsewhere (Conklin, 1975), that interlocked tapestry is a highland technique, with its counterpart, slit tapestry, being a coastal technique. Interlocking of the wefts of adjacent areas of differing colors is a weaving technique that creates sharply defined imagery. This precision, combined with the brilliant dyes characteristic of the tradition and the rich iconography, created textiles that seem to have always conveyed power and significance. This highland tradition in its essential characteristics was technically consistent and probably continuous from its beginning until its demise after the Spanish conquest. However, most of our evidence for this tradition has actually been found on the coast. The fine tunics and other textiles of interlocked tapestry technique that have been found on the coast were most probably all woven in the highlands, and when this tapestry was periodically introduced into the coastal area, by whatever societal mechanism, the designs and technology seem always to have carried the full weight, prestige, and influence of the powerful cultures of the highlands.

The camelids, so essential in so many ways to early civilized life on the

altiplano, provided strong and plentiful fiber which could be readily and firmly dyed. Since the natural habitat of the camelids is in the highlands, use of their hair as a textile material would logically have developed in the highlands and from there spread to other areas. Camelid hair is far more easily and more brightly dyed than any vegetable product, so that once introduced into a given area it generally displaced all vegetable products in prestige textiles. It first appears on the south coast about 900 B.C., in the last half of the Early Horizon, but does not occur on the central and north coast until long afterward in the Early Intermediate Period (Conklin, 1975, fig. 1). The quality and quantity of camelid fiber used in the well-known Paracas textiles in the Early Horizon not only imply extensive trade relations between the coast and highlands, but specifically imply trade relations between a user and a supplier of camelid textile products. This evidence indicates the presence of a textile-product supplying group in the highlands several hundred years before the probable dating of Pucara textiles. This indirect evidence for the early sierra textile tradition does not, of course, prove the presence of tapestry in the highlands during the Early Horizon but only indicates the presence of the materials used in the tapestry tradition. The earliest use of tapestry on the coast occurs in textiles having Chavin designs (Conklin, 1971) but none of the Chavin tapestry fragments so far identified utilize simple interlocked wefts. Thus, questions concerning the actual technical invention of interlocking wefts remain unanswered, though a highland origin seems possible and even likely.

The direct evidence that we have for the early tapestry tradition in the southern sierra consists of the Pucara style tapestry textiles that have been found on the coast of northern Chile and southern Peru, and the Tiahuanaco textiles from the same general areas as well as those from the desert highlands. Evidence for later portions of the tradition comes from the Huari textiles found on the south and central Peruvian coast and from the Inca textiles found primarily on the Peruvian south coast. The evidence is fragmentary and covers a time span of some 2000 years. Yet the consistency of the evidence is such as to indicate that the original source of all of these textiles was a geographical area, some 700 km. north to south, of the southern Peruvian highlands and the Peruvian and Bolivian altiplano (fig. 1).

The four focal points of this vast cultural tradition of the high Andes that we now identify (Pucara, Tiahuanaco, Huari, Inca) may not have been the only ones to share the tradition. Also, their relationship may have been more complicated than this simple linear ordering suggests. The Spaniards left records of many other tribes and kingdoms in the altiplano whose sites and cultural outlines can be confirmed by archaeology (Hyslop, 1976; Julien, 1983), but as yet no evidence of their textile tradition has been identified. It is against these caveats that the evidence for a continuous tapestry tradition is here examined.

Pucara Textiles

T1, shaped tapestry (pl. I, figs. 2, 3)

The first possible Pucara textile to be considered is a complex, shaped tapestry, which has no certain provenience. It was reportedly purchased several years ago in the Ica Valley of south coastal Peru and seems very likely to have been dug up by a *huaquero* from that area. The textile is a nearly-complete, shaped tapestry; the entire periphery consists of finished selvages. It is in many ways unlike any other known Peruvian or Bolivian textile; however, several of the

design elements represented on the textile indicate a Pucara attribution and the construction can be seen as a logical precursor of subsequent highland interlocked tapestry.

Structure

The length of the textile, exclusive of attached hair and the attached, oblique interlaced cord, is about 64 cm. and the maximum width is some 18 cm. The attached cord is some 85 cm. long and the attached hair, which appears to be human, is some 12 cm. long.

Though the form of the textile is highly specialized, the structure is fundamentally of interlocked tapestry construction; that is, it is weft-faced plain weave with the design formed entirely by changes in the color of the weft. Where such color changes occur in the design, the wefts of the two adjacent colors are interlocked. However, in this specimen (unlike other examples of interlocked tapestry), at the completion of a given color area, the weft thread of that color follows along the warps invisibly under the other wefts until a weft thread of that color is again needed in the design when it appropriately reappears. Technically the construction could be called tapestry with discontinuous weft-patterning and continuous wefts.

The warp yarns, which run the length of the textile, are entirely of camelid hair (probably alpaca) and are 2-ply, Z-spun and S-plied in such a way that they form a compact cylindrical thread. The warp yarns are used in pairs, one member of the pair being solid brown, the other member of the pair being bichrome with one dark brown ply and one light tan ply. There are about 7 pairs of warps per cm.

The weft yarns of the specimen are also of camelid hair, 2-ply, Z-spun and S-plied. In this case, however, the plying produced a yarn that remains a loose spiral, providing a textured surface to the textile. The weft count is about 32 per cm. The weft yarns were dyed in five colors: red, green, yellow, blue, and pink. The remaining browns and light tans are probably natural fiber colors. The dyes are well set and are not water soluble.

The construction of such an irregularly shaped textile has no precedent in known Andean weaving procedures. Junius Bird has described shaped late Nasca tapestry bags and their construction characteristics (Bird, 1964) and also other varieties of shaped fabrics, commenting: "The oldest occurrence yet noted is in pre-Tiahuanaco material from North Chile" (Bennett and Bird, 1960, p. 283). All of the shaped textiles that Bird described involved the creation of regular trapezoidal shapes by narrowing or widening the form of the textile during weaving through changes in the number of warps or changes in warp spacing. However, neither technique is utilized in the Pucara textile. Warp spacing is constant throughout the fabric. The shape of the fabric is created by forming local warp selvages where warp ends meet the outline of the design. At these local warp selvages, the warps are not terminated but return, forming the next warp row, leaving a series of tight warp loops at all warp selvages. It seems likely that the main body of the textile was created from a single continuous warp. Although the structure of the textile is thus understandable, the procedure used in creating it is most uncertain. One possibility is that the textile was woven on a rectangular frame with discontinuous warp interlocking occurring at the outline of the design. After weaving, the extra fill-in warps would be discarded. Another possibility is that a loom was created in the form of the desired outline, with

the warp stretched in the irregular frame like the strings in a harp. Still another process might involve the use of a background textile with the local warp selvages formed by sewing individual warp loops in their correct locations onto the background textile. Only the first process utilizes procedures (warp interlocking) related to known Andean textile processes (A. Rowe, 1972).

Simpler forms of shaped tapestry, however, do occur in Huari and Tiahuanaco textiles. Headbands attributed to Huari sometimes have narrow tab ends (Lapiner, 1976, p. 256 fig. 596) and early Huari tunics sometimes have sleeves (Zimmern, 1949, frontispiece). Both the tabs on the headbands and sleeves on the tunics use discontinuous warps to create their nonrectangular forms.

Function

Because of the completeness of the textile, it is possible to discuss its use. A cord, whose central portion is attached to one end of the textile, was obviously intended to be the means by which the textile was hung, and therefore identifies the top of the textile. At the opposite end of the textile is a represented trophy head, which is itself hung from the main textile and thus identifies the bottom of the textile. This necessary vertical positioning makes the textile logically associated with the human body in only a few positions: a) with the cord ends tied around the neck of the wearer and the textile suspended down the front of the body; b) with the cord ends tied around the neck of the wearer and the textile suspended down the back; c) with the cord ends tied around the head of the wearer and the textile suspended down the back. Each of these arrays suggests that the use of the textile was ceremonial rather than functional in nature. Of course the textile may have been hung from something other than the human body, though the length and position of the ties make this unlikely.

Iconography

The iconography of the textile can be separated into five images, and each of these can be individually described, compared to precedents, and discussed. However, the larger design, that is, the relationship of the five parts, has no known precedents and can really only be described. The largest iconographic elements of the textile are the three large profile heads (fig. 3). Those at the top and bottom (with the textile hung vertically) are depicted at about the same size. The head at the top is part of the main textile and, as illustrated, faces the viewer's right. The lower profile head hangs from the main textile, with hair streaming downward, and also faces right. Above the lower head is a third one, almost twice the size of the other two, which faces downward. Because of its size, this central head seems to be the focal point of the design. It also has a series of embellishments not found on the other two. Between the central head and the top one is the fourth part of the iconography, a panel patterned with concentric diamonds. Parallel to this panel and on its left, is the final element, a band containing a vertical row of five trophy head representations, each upside down and facing left.

Top head (fig. 4)

The profile head at the top of the textile appears to represent a realistic, open-eyed human being. The design is constructed by color patterning with interlocked wefts against a dark brown background. The eye is vertically divided, with the front half dark and the rear half light, as are all eyes in profile faces on this textile. The U-shaped mouth shows two rows of even rectangular teeth.

An elaborate design, shown in tan against a brown face and probably representing white face painting, surrounds the mouth and loops up over the eye. The ear is large, with an E-shaped interior. An ornament, depicted as a concentric circle attached to a narrow band, is suspended from the earlobe, presumably an ear ornament. The hair is represented as a neat narrow band which projects slightly beyond the forehead, continuing down the back of the head. The nose projects from the forehead at a marked angle and the chin is somewhat prominent. The front of the neck shows a small wavy line, which is presumably an incision.

Bottom head

The lowest of the three main profile heads represented on the textile is literally suspended, by warp interlocking, from the extension tabs of the main textile. One of these connections shows ancient repairs, as if the head had come partially loose and had been sewn back on. Hair attached to this suspended head by plaiting appears to be human hair.

As in the topmost head, the mouth is U-shaped, the teeth are rectangular, the eye is divided, the ear has an inner E, and the ear ornament is a suspended ring. In addition to the attached real hair, hair is represented on the trophy head as a narrow band, which projects beyond the forehead (as does the attached human hair) and continues down the back of the head. The color of the face is green. However, the facial designs on this lower head are different from those on the upper head and consist of two parts: the upper has a brown and tan checkerboard pattern centered on the divided eye; the lower (which has a red background) extends back from the mouth and contains dots and three bands, two extending from the mouth and one from the chin. All three of these little bands have feathered ends and the center band contains a small frontal face. Both the upper and lower designs seem to be face painting, but they could also be seen as tight-fitting masks.

Central head (fig. 5)

This head differs considerably from the two just described. It is both larger and more elaborately detailed, and probably represents a supernatural being or a supernatural version of the smaller heads. The profile face is yellow in color, and its supplemental designs are more brightly colored than those on the other heads (pl. 1a). The front profile of the face is constructed with local warp selvages, but other portions of the design are shown in color against a brown background. The mouth is U-shaped and contains eight rectangular teeth and two larger crossed fangs. The eye itself is identical to those on the other heads, though large. The ear is represented by five concentric rings of red, blue, yellow, red, and green, without an ear ornament.

The facial design contains two snake bands as well as other elements. The snakes are undulating in their form and red. The larger of the two snakes has a body patterned with seven circles, and a profile puma head is attached to the body with an interlock design. Three feathers are attached to the tail with a ring design. The smaller of the two red snakes has only two circles on the body but has two snake heads represented, one in its normal position and one represented as a frontal face on the body of the snake. There are also three feathers attached to the tail with a ring design.

Four other design elements on this central face are associated with the eye. One is a concentric diamond above the eye. One is a band with feathered tail

above the eye. One is a divided V in front of the eye, and the fourth is a divided trapezoidal marking below the eye. The chin has three dot markings rather than the four that occur on the other two heads. Beneath the chin is a band or faceband with a dot and diamond pattern similar to but simpler than the one in the headdress.

But the most distinguishing aspects of this central head are the supplemental elements represented as being attached to it. Most prominent is the headdress. The linear headband of the headdress is terminated at one end with a tail feather. At the other end a feline profile head is attached by an interlock or "connector symbol" where warp interlocking would occur if the feline head were attached as is the trophy head on the textile itself. The design on the band consists of two circles alternating with a zigzag, appearing to represent paired warp and interlacing weft. Above the headdress, and presumably part of it, are three symbols: two trophy heads arrayed on either side of a tail feather symbol. Both trophy heads are shown in profile, have divided eyes and prominent noses. One trophy head has a plain blue face, but the other has a colored checkerboard face. Another set of elements attached to the central head consists of three bands, which emanate from the front of the profile face. Two of these bands are tan, come from the mouth, and are marked or identified with another form of connector or interlock symbol. They end abruptly in empty warp loops. The third band is green, emanates from beneath the nose, and ends in warp loops that interlock with the warps of the trophy head suspended below.

The final set of design elements associated with the central head appears to emanate from the back of the head. Behind the final green concentric color ring of the ear design, there is a small symmetrical band of seven color segments, which also appears to be a form of "connector" symbol. It is similar to the color patterning used in connecting or joining together the two sides of Huari tunics (Bird and Skinner, 1974). Beyond this symbol is a representation of a tan-colored, flaring, seven-branched design that may represent an array of feathers or other pendent elements as a necklace or collar.

Diamond-patterned panel

A panel of geometrically patterned diamond shapes occurs in the upper portion of the textile beneath the top head. The yellow background with red and green diamonds is created by weft patterning but, since all color changes occur along diagonals, no interlocking is necessary. The pattern is terminated at its edges with half diamonds, creating the impression that the pattern extends conceptually beyond its actual borders.

Vertical band of trophy heads

Five trophy heads are represented in a vertical row beside the diamond-patterned panel. They are upside down to the probable orientation of the textile, and are all of the same design though the colors differ, being in descending order: tan-faced, yellow-faced, green-faced, again tan-faced, and red-faced. Each has the hair, mouth, divided eye, and face markings found on the other larger heads, although here it occurs in a much smaller and simplified form.

Stylistic analysis

In spite of its alleged coastal provenience, this textile can be confidently assigned to the highland Pucara style, even though there are no Pucara textiles

known from the highlands. The basis for this assignment lies primarily in stylistic comparisons, which can be made with ceramics known to have come from the site of Pucara and with artifacts that have been assigned by others to the Pucara style.

The central head (fig. 5) is clearly related to the heads of the two figures on a flaring bowl from the site of Pucara (fig. 6). The eye, U-shaped mouth with centrally placed fangs, continuously drawn forehead and nose, headdress band, and the two appendages emanating from the mouth are shared by all three heads, while the pattern of face painting is especially close between the left-hand figure on the bowl (fig. 7) and the central head on the textile (see also Rowe and Brandel, 1971, fig. 5). The ceramic representations of the paired appendages that are incomplete on the textile suggest what the complete textile would have represented.

Frontal, stylized heads, represented as a circle or rectangle containing an inverted V with three dots, as in the body of the smaller serpent in the central head's face painting on the textile (fig. 8), are common in Pucara pottery and stone sculpture (fig. 9; Rowe and Brandel, 1971, figs. 6, 24, 37, 42, 43, 72; Chávez, 1982, figs. 1-2; Núñez del Prado Béjar, 1972, fig. 7).

The pattern of alternating paired circles and zigzag found in the headdress band (fig. 10), which appears to represent the structure of the textile, is another recurrent theme, which occurs primarily in representations of linear Pucara textiles. A sherd from Alfred Kidder's excavation at the site of Pucara contains a representation of a Pucara headband with a similar pattern (fig. 11). The same pattern occurs in the headband shown on a stone lintel from Calle Linares, La Paz (Conklin, 1970, fig. 9), as well as on a stone lintel from the Kantatayita sector at Tiahuanaco (Boero Rojo, 1980, pp. 180-183; Cook, 1983, fig. 7). In addition to its appearance on headdress bands, the same design appears in other contexts, such as the belt and staff of the figure on a wooden snuff tray from Niño Korin (Wassén, 1972, fig. 5).

In contrast to headdress appendages in Tiahuanaco and Huari art, Pucara headdress appendages, with very rare exceptions, occur in groups of no more than three elements. The design of the appendages on the headdress of the textile's central head is almost exactly parallel to that of the headdress appendages on a Pucara pottery sherd in the Museo Nacional de Antropología y Arqueología, Lima (fig. 12).

The pattern array that extends behind the ear of the central head is difficult to interpret (fig. 13), although similar patterns exist on other Pucara images (figs. 7, 16; Chávez, 1982, fig. 1; Bennett and Bird, 1960, fig. 15 right; Mujica Barreda, 1978, fig. 98). It seems likely that the array represents a collar with feathers or pendants (see fig. 14).

The vertically divided eye, as represented on the textile, is not only common in Pucara, but also becomes a characteristic artistic device in Tiahuanaco and Huari art. In the Pucara style, the eye in a profile head almost always has the front half dark and the back half light, representing the pupil of a human eye as seen in profile.

The diamond pattern on the panel below the top head may represent feline spots, as it sometimes does in Pucara ceramics (fig. 15) and stonework (Mujica Barreda, 1978, fig. 99). Such diamond patterning recurs in Huari tapestry designs

in conjunction with facial representations (Lapiner, 1976, p. 238 fig. 547).

The E-shaped ear of both the top and bottom heads on the textile also occurs in Pucara stone carving, as on the so-called Flute Player from Pokotía (fig. 16). A pendent ear ornament similar to the ones on these two heads is worn by an apparently human figure on Pucara pottery (Rowe and Brandel, 1971, figs. 17, 65).

A comparison of the colors used in the textile to those found on Pucara ceramics, which are predominantly reds, yellows and black, reveals considerable similarity, although the textile colors are brighter. The blues and greens of the textile, however, have no counterpart in Pucara ceramics.

Summary

The design elements of the textile that are closely comparable to the design elements of known Pucara ceramics and stone work are, thus, multiple and constitute convincing evidence that the textile, though of probable coastal provenience and of a previously unknown form, is one that truly represents Pucara art and culture. None of the comparisons, though, really throw light on the meaning of the relationship of the five individual design parts: the three large profile heads, the diamond pattern, and the row of five small profile heads. Obviously, though, the major design subject of the textile is the trophy head in its apparently human and mythic forms. Probably the diamond lattice pattern relates in some way to this thesis.

The complete condition of this Pucara textile makes it possible to compare it to clothing and to costumes represented in related art, the cord attached to one end indicating that it was to be attached or hung in a vertical position. In Tiahuanaco art, one representation of such a hanging object occurs repeatedly in the form of a sash, which starts at the neck, follows down the back, and terminates in one of several forms of trophy heads: fish, bird, or human (fig. 17). In fig. 17, the trophy head is that of a bird. It is not inconceivable that the Pucara textile was worn in a similar manner to the Tiahuanaco sashes.

Other Pucara textiles

In 1976, Mario Rivera reported the existence of textiles from Chile bearing designs like those found on Pucara ceramics (Rivera, 1978). Trophy heads and other Pucara designs have been identified on textile fragments excavated at several sites assigned to the Alto Ramírez Phase, which is essentially contemporary with Pucara. No Pucara ceramics, though, were reported from these north Chilean sites.

Tiahuanaco Tapestry

In addition to the Pucara textiles so far discussed, there are six tapestry fragments that can be attributed to the Tiahuanaco style, all of which were found on the arid coast of northern Chile or southern Peru.

T2, Quebrada Vitoria textile (figs. 18, 19)

The first of these Tiahuanaco textile fragments to be discussed was a surface find made in 1968 in an ancient cemetery called Quebrada Vitoria, some

50 km. south of Arica, Chile (fig. 1). The burial apparently was at the top of a cliff and had been dislodged by rain; the textile was found at the water's edge of the stream below. The textile was brought to the American Museum of Natural History, New York, where it was cleaned by Milica D. Skinner, and I had a chance to examine it. No other objects were associated with it.

This textile fragment, which measures 18 × 12 cm., is of interlocked tapestry construction, 2-ply, Z-spun, S-plied, and entirely of camelid yarn. The warps are of brown camelid hair, spaced at 20 per cm. The two final warps are tripled at the weft selvage. The weft has a count of 92 wefts per cm. Weft colors are brownish-red, yellow, dark and light green, black, and white against a dark bluish-green background. The fragment is too small to establish function but the weight of the material is like that used in tunics.

The design shows two repeats of a mythical figure at right angles to one another, suggesting that the figure was conceived of as floating rather than standing. Aside from their positions the figures are clearly meant to be identical, although there are minor differences due to their individual creation. The design of one of the figures seems crowded adjacent to the warp selvage. In the floating position the body is horizontal, the face forward. The eye of this face is then vertically divided, with the front half dark, and is decorated with a bird head and a bird tail. A large staff is held in one hand, horizontally, below the body. A spear thrower is held vertically in the other hand along with an animal trophy head, held by the hair, which floats along behind.

The headband parallels the body and has its own head and tail. Its head shows an interlock symbol at the point of attachment. The tail of the headband has trophy tail feathers floating up and behind, but the headband also continues around the head of the main figure, behind an extended ear, and ends beneath the chin, becoming a form of face band. Attached to the headband with an intermediate patterned band are three appendages: human trophy heads on either side of a trophy feather tail.

The floating figure has a belt with three trophy feather tails suspended from it and a shirt with two vertical bands of trophy feather tails on either side of a detached head and collar. The detached head has an interlock symbol at its point of would-be attachment. The shirt has sleeves, and interlock symbols are used at the point of connection between arms and body. All of the belts, bands, and staffs are decorated with variations of a zigzag motif. The large horizontal staff has the most complex version of the motif with two zigzags alternating with pairs of dots and with single dots. Many of the motifs parallel those on the Pucara textile (the zigzag motifs, the multiple trophy heads, the tripartite headdress) but there does not appear to be any representation of a sashlike costume element. Taken as a whole, this figure, with its human hands and feet, almost covered with symbolic clothing and ritual paraphernalia, is clearly a mythical being and a collector of trophy heads. The presence of ten trophy bird tails as enhancements for each figure supports the interpretation of the figures as being conceived of as floating or flying.

T3, Punta Pichalo textile (fig. 20)

A second fragment that seems certain to be a Tiahuanaco tapestry was recorded by Posnanski (1958, vol. III, pl. XCVIII.a; misprinted "b" on plate). He reported that the fragment that he illustrates was found at Punta Pichalo, near Pisagua, Chile (fig. 1), and was located in the Santiago de Chile Museum in the

Quinta Normal of that city at the time of his writing. The textile design has portions of three repeats of a figure that has a bird head and wing but human hands and feet. The figures are alternately right side up and upside down and also alternate left to right, so that orientation is obviously somewhat flexible. Viewing the figure with its eye division vertical arranges the figure horizontally.

The head has an open beak with a slightly projecting slender tongue that is unusual in such figures. Only one arm is shown and it holds a segmented staff that has a fish head at either end. The feet are arrayed behind the figure, with one foot that is turned up, which also has an appended fish head. The wing extends up and over the head of the figure and also has one attached fish head. The headdress has a segmented band and four symbols: a bird tail, two fish heads, and one interlock-in-a-square symbol. If it were not for knowing the precedent of headdresses with bird tails, this headdress could well be read simply as having four attached symbols. The neck of the Punta Pichalo figure seems to have a collar band and collar array but also, extending from the neck, has a sash in a shortened form. The sash has a segmented pattern that terminates in three attached circles, which may be a symbolic simplification of three more explicit elements, such as trophy heads. No technical information is available on the textile.

T4, Pisagua grave lot (figs. 21-24)

The third Tiahuanaco tapestry textile to be considered is part of a lot of material that was reportedly removed, sometime between 1946 and 1956, from a grave in Cemetery 3, Pisagua, Chile. The entire lot is now in the Museum of the American Indian, New York. In addition to the tapestry band, the lot (fig. 21) contains wooden plates, typical Tiahuanaco snuff tablets, various bone implements, fine patterned basketry, and portions of a mummified human head with a headband (fig. 22).

The tapestry textile (fig. 23) is now in two portions, which together measure about 50 cm. long; the band width is 5.5 cm. These are exactly the right dimensions for a headband for a small human head. The textile is of interlocked tapestry construction, entirely Z-spun, S-plyed camelid yarns. The warps are entirely bichrome. At the weft selvage, the final two warp sets have three elements, thus reinforcing the edge. There are about 80 wefts per cm. The colors of the figures are red, green, yellow, and pink against a dark blue-green background.

The tapestry design (fig. 24) consists of eight repeats of a mythical figure shown in extended profile with an animal head and clawed feet. The head has a pronounced, squared-off snout surmounted by an oval nose. The closed mouth is surrounded by a white area that includes the chin and throat area. The eye is divided realistically, with the front half dark, and is decorated with a ring symbol and a braid. The ear is triangular and appears in front of the surrounding design elements. The figure has a small pendent band beneath the ear. The headdress is composed of a band decorated with interlocking frets surmounted by a central rectilinear tail-feather design flanked by two curved stems terminating in figures resembling headless birds.

Beneath the neck of the figure represented on the textile is a segmented collar representation, from the back of which issues a "sash," that follows the back, then curves up, forward, and then back again in a reverse S. The sash is segmented and terminates in an unusual eared version of the Tiahuanaco fish

head. The fish head is attached to the body of the sash by the interlock symbol. The sash recalls the Pucara sash in its general form and specifically in its attached trophy head. The sash on the Pisagua tapestry is also similar to representations on Tiahuanaco stone sculpture, as in the headband in fig. 25. The similarities, in fact, are such as to reinforce materially literal interpretations of the carved designs on Tiahuanaco stone sculpture as representing textiles.

On the chest of the textile figure is a ring design. The figure's front leg is straight, the back one bent. Both feet have three toes of graduated size that terminate in slightly curved and pointed claws. The heels are marked in a pointed pattern, which is common in Huari art but rare in Tiahuanaco. Issuing from the toes of the forefoot is an appendage like those on the outer extremes of the headdress, complete with a bird body with extended wings. Of the 24 profile faces represented on the fragments, 23 have the divided eye represented realistically, with the dark half forward. The three symbolical bird bodies, as well as the wide-eyed fish head, are all apparently intended to assist this mythical creature in his multienvironmental spatial navigation.

T5, Loreto Viejo textile (figs. 26, 27)

The fourth Tiahuanaco textile consists of large but irregular portions of a tapestry tunic that is in the Archaeological Museum of the Universidad de Tarapacá in Arica, Chile. It was found as part of a Classic Tiahuanaco burial at the site of Loreto Viejo in the Azapa Valley.

Technically, the Loreto Viejo tunic fragment is nearly identical to the Quebrada Vitoria piece. It is interlocked tapestry, entirely of 2-ply, Z-spun, S-plied camelid yarns. However, the warps are brown and white bichrome, used singly, at 11 per cm. The use of the bichrome warps suggests a simplification of the alternating warp pairs used in the Pucara textile. The weft spacing is 36 per cm. Weft colors are red, green, yellow in the figures and in the stripes, used against a dark blue-green background.

The tunic appears to have been vertically banded, with one column of motifs crossing the side seam, followed by a band of vertical stripes, most likely then followed by additional vertical bands of motifs. The best-preserved figure (fig. 26) has human hands, feet, and body but an animal head. The figure is shown with profile face and legs but with frontal body and arms. The back leg is bent and the toes of that foot point downward. One arm is bent upward in front of the body with a circular symbol pendent from the elbow; the hand is holding a captured figure by the neck. The other arm is bent sharply upward behind the back and an incomplete stafflike object is held in the hand. Because of the condition of the fabric, not all details of the figure can be ascertained; fig. 27 is a conservative reconstruction.

Although the basic elements of facial design found in the previous textiles (decorated, divided eye; crossed fangs in a U-shaped mouth; headband; headdress; and extended animal ear) are all present, their actual execution differs considerably from the previous examples. The facial painting resembles a mask or muzzle and includes the tall and pointed nose. The crossed fangs are long and slender and extend well beyond the lip line. There is also a band that starts behind the head, crosses the neck and ends below the chin, which has a trophy head (with abbreviated interlock symbol) at one end and a bird tail symbol at the other. The headdress is badly damaged but appears to consist of a band portion with circular and rectangular motifs, and an upper portion with similar motifs and peaks

at either end.

On the chest of the figure is a pendent trapezoidal symbol not seen on the previous textiles but evident in many examples of Huari art (Lapiner, 1976, p. 241 fig. 559). The figure is belted and the pattern on the belt, as well as the pattern on the staff, shows simplified versions of the double dot and zigzag patterns noted on the previous textiles. From the figure's turned-up foot emanates a double-branched appendage, which is terminated by two tail-feather symbols. It seems likely that this winged-foot image plays a role similar to that of winged backs in T3 and in Huari iconography (Menzel, 1964, fig. 12). The captured creature held in the front hand is unique. It seems to have four legs, a tail that curves upward, and a long sinuous body that is marked with a row of spots; but its head seems to be human. From the captured creature's head arises a headdress with two very long, vertical stems terminating in a pair of tail-feather symbols.

T6, Moquegua textile (figs. 28, 29)

The fifth Tiahuanaco fragment comes with more information than the preceding ones. It was collected in 1959 from the remains of a previously looted grave in a site in the Moquegua Valley on the far south coast of Peru (fig. 1). The grave had contained Tiahuanaco ceramics and other Tiahuanaco artifacts (personal communication, Gary Vescelius). The tapestry fragment apparently is a portion of a tunic panel having three vertical bands of figures and two border bands of repeated stepped forms with interdigitating, repeated, curved triangular forms. The horizontal rows of figures alternate their left-right orientation, as did the figures in the Punta Pichalo textile. If the fragment were larger, the figures might also alternate their up-down orientation as they did in the Punta Pichalo fragment, which contained portions of three horizontal rows. If the figure is arranged so that the divided eye is vertical for the reader, then the figure is in an upright position with the eye division horizontal for the figure's own face. One hand of the figure holds a vertical staff, which has portions of a zigzag design. Oriented in this way, the figure clearly appears to be kneeling, with the front foot flat on the ground and the knee of the back foot also flat on the ground. The body appears to be human but has a feathered wing and an animal head. The head has portions of a band at the back of the head and at the chin but has no headdress. The eye has only a simple rectangular pendant. The nose of the creature is of an unusual form. It appears to represent a long nose that has been bent back, clearly that of a very unusual animal. This nose appears on other recorded Tiahuanaco art: a stone lintel (Posnansky, 1945, vol. II, fig. 140), an engraved stone fragment (Créqui-Montfort, 1906, p. 540), a carved wooden snuff tray (Wassén, 1972, fig. 5), a fragmentary bone container (Eisleb and Strelow, 1980, Abb. 312) and it occurs in similar form on Huari-style ceramic art from Nasca (Menzel, 1969, figs. 7, 14).

The figure has a collar with a three-part array and an unattached wing located behind the head. The wing has segmented vertical elements, which probably represent a three-part trophy bird tail. The figure has a portion of a second arm represented. Also, from the collar extends the sash, which here is angular and has one trophy head with a divided eye, again vertical for the presumed viewer but horizontal for the represented figure. The sash terminates in another tripartite element, which may also represent a three-part trophy bird tail.

Clearly, the concept of the orientation of the figure is here considerably altered from all of the previous examples. The figure seems to be conceived of as kneeling on the ground and the eye division is no longer correct for the

faces as depicted. Viewing this textile alone, the realistic meaning of the divided eye symbol could not be ascertained.

This textile, which measures 27 × 35 cm., is woven in interlocked tapestry with Z-spun, S-plyed camelid yarns. The warp, though 2-ply, is a single color, brown. At the weft selvage, the warps are tripled in the first row, then doubled in the second before establishing the normal pattern of one 2-ply warp interlacing with the wefts. The wefts used in the figures are yellow, tan, brown, pink, red, khaki, and bright green against a black background. Vertical rows of figures are separated by red background stripes. The outer two vertical rows of figures have red sashes against alternately tan and khaki bodies but the figures of the inner vertical row have either a pink sash against a green body or a green sash against a pink body.

T7, Ilo textile (figs. 30, 31)

The final textile to be considered is a complete tunic recovered from a looted grave at Ilo, also in the Moquegua Valley (fig. 1), and not far from the site where the preceding textile was found. The Ilo textile (fig. 30) was recovered and recorded by Rogger Ravines (1965). It is a shaped tunic and was associated with ceramics of the style called Chiribaya or Puquina, from the beginning of the Late Intermediate Period. Shaped tunics, similar in form but technically entirely different and without Tiahuanaco designs, have been recorded from northern Chile by Bird, as noted earlier (Bennett and Bird, 1960, fig. 34). They were considered to be post-Middle Horizon.

The textile measures 108 × 94 cm. and is of tapestry construction, but in many technical respects is quite different from the previous textiles. It is not constructed by interlocking the wefts at points of color change but by dovetailing both sets of wefts around a common warp. This technique produces a serrated boundary line between colors rather than the sharp boundary produced by weft interlocking. The warps run horizontally across the body of the tunic, with the trapezoidal shape, then, formed by varying warp length rather than by varying warp count or spacing. Warps run horizontally as worn, as in all known Huari and Inca tunics, but the Ilo tunic is a single loom product rather than the two loom products characteristic of Huari tunics. Inca tunics, in their purest all-interlocked-tapestry form, also are constructed as a single loom product. The materials used in the Ilo tunic are entirely 2-ply, Z-spun, S-plyed camelid yarns. The warps are two colors, either white or brown, used separately. The wefts are of six colors, though the predominant color of the textile is brown. This garment is clearly the latest of the Tiahuanaco textiles under consideration.

The design (fig. 31) consists of two figures standing face to face. The rather disjointed figures have a profile animal head, frontal human body and arms, and profile human legs and feet. The heads have an essentially circular nose on a projecting snout but no forehead. The vertically divided eye has the dark portion at the back rather than in front; the eye adornment is a simple pendant. The U-shaped mouth contains square teeth and no fangs. The face does have a band, which wraps around behind the head and under the chin with one end hanging down behind the head and the other hanging down beneath the chin.

The headdress is itself disjointed, with the main section a banded rectangle on top of the head, with an associated three-part tail feather, which hangs down the back of the head. Three appendage elements float above: two square profile eye symbols on either side of a three-part feather symbol. The body has a

simplified collar with rectangular segments, a trapezoidal chest pendant, and a segmented belt; one hand holds a spear thrower, the other a trophy head suspended by its hair. Above the hand holding the trophy head is an enigmatic, inverted-U shape. The spear thrower has at its upper end an unattached square profile eye symbol and a three-part tail feather symbol. At its lower end is the throwing hook and an associated L-shaped bar. The legs of the figure show a slight bending of the knees and one foot has an associated but unattached square eye symbol; the other foot has an appendage without an associated symbol.

Additional Tiahuanaco textiles

In addition to the preceding six textiles, there are several Tiahuanaco textiles in the museum in San Pedro de Atacama in northern Chile. Complete Tiahuanaco graves have been excavated in the high altitude portion of the Atacama Desert and their contents stored in this local museum. Preservation in this area is even better than on the Chilean coast. The interlocked tapestry tunics on the mummy bundles appear, broadly speaking, to be stylistically and technically related to the textiles discussed above. One of the San Pedro Tiahuanaco tunics has a single-web construction rather than the double-web construction always found in Huari tunics. When made available for detailed study, these materials will no doubt greatly enlarge our knowledge of Tiahuanaco textiles.

The Textile Sequence

The textiles, as described, have been arranged in a tentative stylistic sequence, which begins with the Pucara sash (T1) and ends with T7, the tunic from Ilo. Although the figures in the textiles represent different personages and, hence, are not exactly comparable, they have iconographic and technical characteristics that can be used in establishing a relative sequence. This sequence may help us in understanding something more about the evolution of the southern sierra interlocked tapestry tradition, which included Huari, and later Inca, tunics.

The figures from the textiles have been arranged to illustrate the proposed sequence (Table 1). Each of the drawings of the figures has been oriented with the divided eye of the major figure of the textile vertical, since this is the normal orientation for a profile face. The two surfaces of any tapestry textile are identical except that they are reversed, so images of the figures have been selected that permit all the figures to face the same way, to facilitate comparison. The following attributes were especially useful in arranging the sequence.

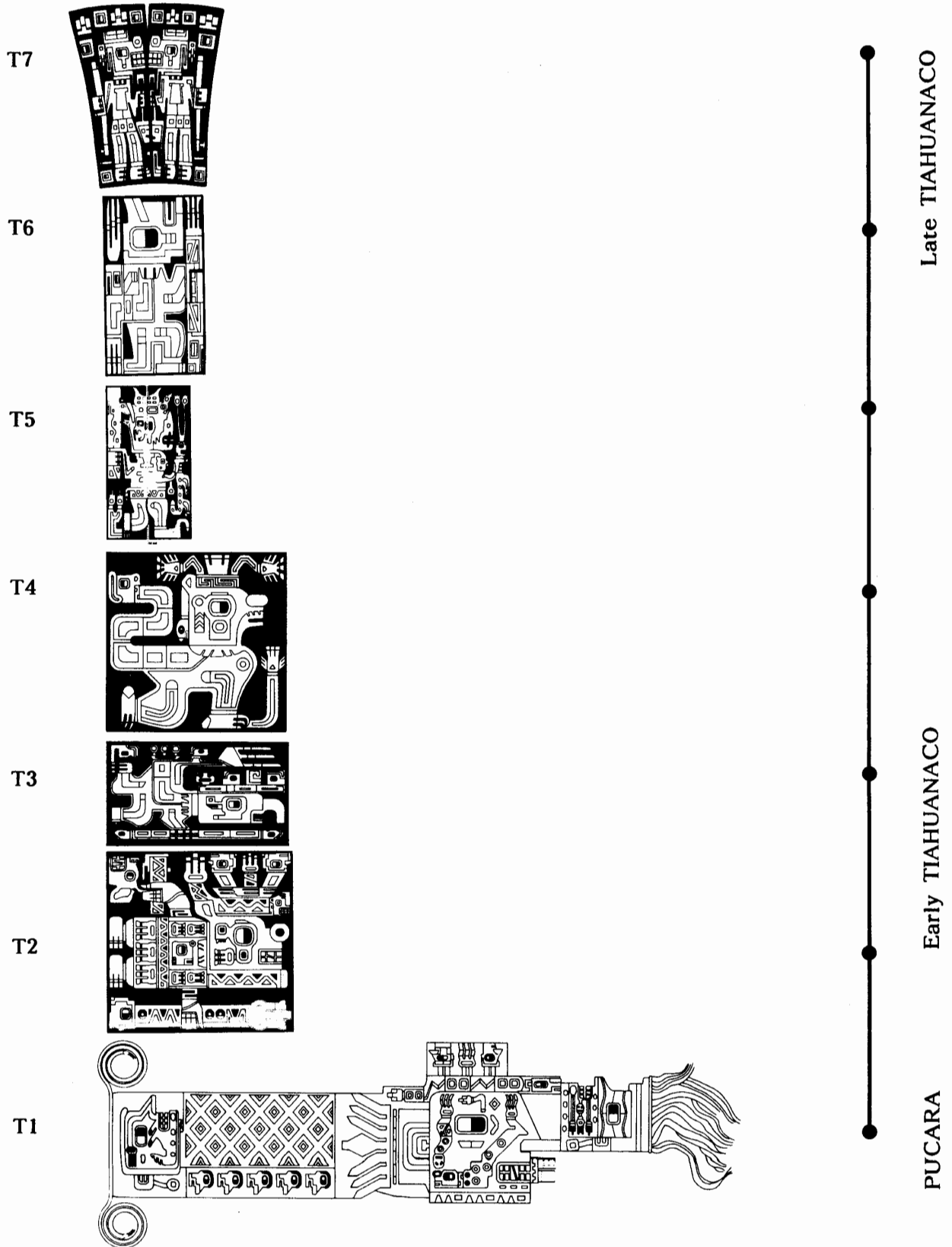
Eye representation

The Pucara textile and T2 through T5 have a divided eye with the dark half facing forward, which, as noted before, is a realistic representation. T6 has the eye division rotated 90° with relation to the face of the figure, so that the bottom half of the creature's eye is the half that is dark. T7 has the eye division rotated 180° with relation to the face of the figure, so that the back half of the creature's eye is the half that is dark.

Face painting

The painting represented on the Pucara profile faces is extensive and elaborate and includes painting associated with the eye as well as other design elements. T2 through T5 have complex painting around the eye but no other

Table 1
Pucara-Tiahuanaco Tapestry Sequence



facial painting. T6 and T7 have only very simplified eye pendants.

Collar pendants

The Pucara main profile face has an elaborate collar represented with a central symmetrical pendant and three additional pendants on either side. T3 and T4 have simpler versions of this same collar of pendants, with only two pendants on either side of the central one. T6 is still simpler, with only two flanking pendants. T5 has a different style of neck pendant, a trapezoid with tabs on either side. T7 has both collars represented in simplified forms, grouped collar pendants and a trapezoid-with-tabs pendant.

Posture

The diverse orientation of the faces on the Pucara textile (if one includes minor faces, all four orientations are addressed) suggests that relationship to gravitational direction was not critical to the design.

T2, as illustrated, has the figure horizontal, and in the textile another identical figure is positioned at right angles, with both shown against a blue-green background. The figures do not have wings, but are decorated with feathers, and carry beneath them a feather-ended staff. Both the configuration and the background suggest that the figures were conceived of as floating or flying.

T3 has a bird head and wing and a horizontal flying posture. T4 and T5 have an upright running posture and both have either feathers or wings attached to their feet. T6 has one foot and one leg planted firmly on the horizontal, appears to be kneeling, and has an associated but unattached wing. T7 is clearly the representation of two earth-based, standing figures who have no wings or feather appendages attached directly to their bodies, but have only feather symbols on their staffs and on their headdresses.

Teeth

The Pucara textile and T2 have crossed fangs within the representation of their teeth, which, hence, could represent feline mouth images. Crossed fangs are also represented in T5 but they are pointed and cross over the lips, a design that does not occur in the Pucara textile or other Pucara art or in Tiahuanaco ceramic designs or stone sculpture. T3 has a bird head and no teeth. T4 shows no teeth, does not have a feline mouth, and is probably a llama. T6, the animal with the bent back nose, shows no teeth. T7 may represent a feline face, but has no crossed fangs. The iconographic differences in the mouths of the figures are much greater than the differences in the eyes, posture, costume elements, and face painting. Mouths may have identified the basic species of the mythical figures and each animal form may have had its own evolutionary sequence.

Headdress

The headdress on the Pucara central head consists of a headband (which itself has a head and tail) and a set of three appendages. T2 is very similar and has a headband (with head and tail), and a grouping of three appendages. The headdress on T3 also has a headband and three appendages but the headband has only a tail. T4 retains the headband and appendage composition but omits the head and the tail entirely, and the central appendage is flanked by bird bodies rather than trophy heads. The headdress of T5 is obscure, though it seems to be

a symmetrical composition. T6 has no headdress. T7 has the tripartite elements of the headdress but they are disengaged and abstracted.

Warp

All warp is of camelid fiber, 2-ply, Z-spun, S-plied. Bichrome warp and brown warp are both used in the Pucara textile. Brown warp is used in T2. The warp of T3 is unknown. T4 and T5 have brown-and-white bichrome warp; T6 has brown warp and T7 has warp of varying shades of brown and white. Every textile for which we have data uses one of the two forms of warp found in the Pucara textile, but the use of bichrome warp stops with T5.

Color (use of blues and greens)

Blue and green are very rare colors in ancient Andean ceramic art and are not found on Pucara ceramic art or on Huari ceramic art. They do, however, appear on Tiahuanaco ceramic art (Posnansky, 1958, vol. III, pls. XXIX, XL). Tiahuanaco stone sculpture was in part painted blue-green, perhaps as a representation of textile colors, as can still be detected in some of the Tiahuanaco sculpture preserved in the Museum für Völkerkunde in Berlin. In 1904, traces of blue-green color were found on the walls at Tiahuanaco (Créqui-Montfort, 1906, p. 541). The Pucara sash is multicolored, with blue-green used as a background for the row of five trophy heads (pl. Ib), with blues and greens used generously in decorative details. T2, T4, and T5 all have a blue-green background for the figures. T3, in the colored rendering published by Posnansky (1958, vol. III, pl. XCVIII.a), has a brownish background with blue details. The background of T6 is black or brown, with blues and greens used in figures and details. T7 has a brownish background with pale blue details. The use of blue, green, or blue-green occurs in every textile. The use of these colors as background seems to stop with T5 but they continue to be used in other elements of the designs through T7. In tracing the use of blue and green, we can be quite sure that we are tracing the heritage of Pucara textiles and of Tiahuanaco art.

Notes on the sequence

It seems quite possible that each of the differing mythical figures represented in the illustrated sequence could, to some extent, evolve a sequence of its own if more textiles were known. Those elements of the designs that appear with some consistency in the sequence no doubt have the most diagnostic value.

It seems likely that the sequence would be of greatest reliability in comparing other textiles (and artifact designs representing textiles). In comparisons with the sequence, it would be the similarities that are latest in the series that would be most determinative in dating (as in the dating of a grave lot).

T4 is the Tiahuanaco textile that seems closest in style to the designs carved on the major monoliths at the site of Tiahuanaco.

T5 has two design elements, fangs that cross over the lips and a trapezoidal collar pendant, that do not occur earlier in the series but do occur in Huari art.

All of the textiles in the sequence were found on the coast of northern Chile or southern Peru and probably had their origins in the nearby portions of highland Tiahuanaco territory. But Tiahuanaco textile production may have been widespread and have had local differences. Textiles from the highland regions

south of Tiahuanaco, the Atacama Desert, might be distinguishable from those in this sequence.

This tentative style sequence for these highland textiles should be of assistance in studying the relationship between Tiahuanaco and Huari. Such a study could well begin with a comparison of textiles, and one textile example is undertaken here as a first trial, followed by a brief comparison of a ceramic image with the sequence.

Example 1

A Peruvian textile fragment at the Textile Museum was attributed by me, prior to this study, to the beginning of the Middle Horizon in Peru (Conklin, 1970) and it can now be compared with the Tiahuanaco style sequence. The comparison can most easily be made with a single figure roughly comparable to the single-figure iconographic examples found in the Tiahuanaco textile fragments. Such a figure would be one of the winged, horizontally-flying, profile figures on either side of the central figure (fig. 32). Recently, an additional fragment, apparently from the same textile as the Textile Museum fragment, has appeared. It contains complete representations of some of the figures only partly preserved on the Textile Museum specimen. It is upon this new fragment that fig. 32 is based. For convenience I am here treating both of these fragments as a single textile and referring to them jointly as the Textile Museum fragment, although the new specimen is in a private collection.

Eye design and face painting

The eye of the profile figure on the Textile Museum fragment is divided vertically, with the front half dark. Hence, by that criterion, the textile would fall within T2 through T5.

The face painting is comparable to, though not quite as complex as, that of T2 through T5.

Posture

The posture of the Textile Museum figure is most like T2, although the Textile Museum figure has a wing, as does T3.

Teeth

The teeth are almost exactly like those in T2.

Headdress

The headdress of the Textile Museum figure has a head and a tail and a symmetrical grouping of three appendages. It is most like the headdress of T2.

Warp

The warp of the Textile Museum textile is of natural, light-brown cotton, not camelid fiber as in all the Tiahuanaco textiles, although it has the same structure, that is, 2-ply, Z-spun, S-plied.

Color

Blue and green are used generously in the Textile Museum figures. The use of blue and green is consistent with the Tiahuanaco textiles in general but the

Textile Museum textile has a red background rather than the green background that three of the four early textiles in the Tiahuanaco sequence do have.

Conclusions to Example 1

Comparison indicates that the Textile Museum fragment is more like T2 than it is like other textiles in the sequence. On the basis of design, its relation to the sequence seems certain; however, it has cotton rather than camelid warp. This discrepancy might be explained if the Textile Museum textile were considered to be an early Tiahuanaco textile that had been made with cotton warp, rather than with the camelid warp used in all the archaeologically identified textiles. This explanation would require that the evidence be ignored for a single exception. Another alternative would be to postulate that the Textile Museum specimen is a Huari textile and that Huari and Tiahuanaco textiles are indistinguishable except for the materials used in their warp. This postulate requires the improbable condition of two art centers (Huari and Tiahuanaco) producing artistically indistinguishable work. A more likely explanation might be that the textile was created on the south coast of Peru, where cotton was in use, but that it was created under strong Tiahuanaco, rather than Huari, stylistic influence.

Example 2

A comparison can also be made between the Tiahuanaco textile sequence and a related painted ceramic image, that of a horizontal "floating angel" (fig. 33) from an offering deposit near Conchopata in Peru, as illustrated by Menzel (1977, fig. 91; see also Conklin, 1970, fig. 7). It would, of course, be more definitive to compare a Huari textile image with the Tiahuanaco series but no roughly comparable iconographic figure has ever been identified on a textile with definite Huari provenience. A ceramic to textile comparison is an arm's length comparison.

Eye and face painting

The eye of the "floating angel" is divided vertically but it is the rear half that is colored dark. Hence, in this regard the "floating angel" would be closest to T7.

There is no face painting on the "floating angel," so in that regard it would not relate directly to any of the Tiahuanaco textiles but would be closest to T6 and T7, which have very little face painting.

Posture

The posture of the "floating angel" is most clearly related to T3, because of the horizontal position and the wing. The figure has a bird mouth, as on T3, although it also has a deer-head appendage rather than the fish-head appendage of T3.

Teeth

Although the main figure has a bird beak, the adjacent figure has a mouth with rows of teeth and crossed fangs closely related to those on the Pucara textile and to those on T2 and possible to those of T5.

Headdress

The headdress on the Conchopata "floating angel" is an abbreviated and

simplified version of the head-and-tail headband with tripartite appendages as identified on the Pucara and Tiahuanaco textiles. The "floating angel" has a band with a turned-up trophy head at either end and an appendage in the middle. It is about as realistic in its form as T4 but not as abstract and disjointed as T7. Its placement will be between those two extremes, that is, T4 or T5.

Warp

Ceramics, unfortunately, have no warp.

Color

Blues and greens are not found on the figure under consideration nor are they found on Conchopata or Huari ceramics as a whole.

Conclusions to Example 2

The Conchopata "floating angel" has eye, facial characteristics, and head-dress that correlate with T4, T5, and T6. The correlation of the figure with the Tiahuanaco textile sequence would, then, be with that position, noting, however, that the posture and teeth of the mythological figure are similar to those on the earlier T2.

Implications of the two examples

The Textile Museum textile, found on the coast as were all of the textiles in the Tiahuanaco series, seems to correlate earlier in the series than does the painted Conchopata ceramic example from the highlands. This evidence suggests that the south coast of Peru felt Tiahuanaco influence earlier than did the highlands. It seems likely that the painted ceramic figure was derived from later design generations of the floating Tiahuanaco figures represented by T2, design generations for which we as yet have no evidence. Because of the poor preservation conditions in the highlands; the actual textiles that might have influenced the art of early Huari will probably never be in evidence.

Conclusions and Suggestions

The Pucara shaped tapestry described above, the beginning of the series, is apparently the earliest altiplanic tapestry recorded to date, though it does not necessarily mark the beginning of the southern sierra tapestry tradition. It is a complex and sophisticated piece of weaving and, judging by the rate of change in weaving technology since Pucara, many hundreds of years of highland weaving must have preceded the ceremonial sash. The extensive trade in camelid fiber with the south coast appears to have begun long before the current dates for Pucara, and there is evidence of camelid domestication in the altiplano (at Chiripa) long before the time of Pucara (Bennett, 1934).

The cultures of the highlands arose and fell, but their weaving traditions were extremely conservative. The transmission of weaving knowledge from person to person over the centuries, up to the present, is an amazing continuum. One interesting example of this conservatism is the construction of warp yarns for altiplanic tapestry. The Pucara textile utilized a 2-ply, Z-spun, S-plied, bichrome, camelid-fiber warp paired with a brown, monochrome, camelid-fiber warp. The Tiahuanaco textiles, some 500 to 800 years later, all still used some variant of those types. Huari tapestry generally used cotton warp but the

spinning and plying was the same and the two colors of brown and white are often both present (Bird and Skinner, 1974).

Inca tunics, made hundreds of years later, bear a distinct visual resemblance to earlier highland tunics and are about the same size though somewhat narrower. Although they are constructed in one piece, Inca tunics use interlocked wefts for patterning. Inca warps may be either cotton or camelid but are always Z-spun and S-plied (A. Rowe, 1978). No two-color Inca warping has been reported.

Today, in the Bolivian altiplano, warp is of sheep's wool and is used for the visible patterning of the textile rather than the invisible structure. The warps are, nevertheless, 2-ply, Z-spun, and S-plied as they were 2000 years ago. And the patterned ponchos that have replaced the tunics still convey the sense of community and status.

These altiplanic textiles can provide special insights into the iconographic communication of the cultures involved. For example, the appendages so commonly represented on headdress and other elements may be analyzed by using a linguistic analogy. It is possible that such appendages conveyed their meaning by adding to or modifying the subject matter of the main figure; grammatically, they are adjectival. Their artistic use is distinctly different from the kennings of Chavin art (Rowe, 1962), where symbolic representation is actually substituted for the real object. The importance of these appendages as conveyors of patterned meaning in altiplanic art can hardly be overstressed. And we can consider the Pucara textile itself, on another level, as just such an appendage, a hanging signifier. The multiple levels of meaning thus conveyed, like a hall of mirrors, reinforce the significance.

Each symbolic appendage in this sierra textile art was terminated with a trophy, be it a trophy head or a trophy tail or still another form or trophy. Each form of trophy may have its characteristic connecting symbol. The trophy head of the Pucara textile is actually held onto the textile by warp interlocking, and the form of the connection symbol for trophy heads itself suggests interlocking. Thus, weaving may be the foundation for some of the iconographic expression.

Examination of the textile evidence may contribute to solutions for some broader cultural problems as well. The presence of these highland textiles on the coast speaks powerfully of highland-coastal interaction, though the exact nature of that interaction is only slowly being understood. The early style designation, "Coastal Tiahuanaco" (Uhle, 1903), which was applied largely to Huari style materials on the coast, implied a dependent, though locally sustained, cultural manifestation of highland influence. More recently, the concept of verticality was introduced by John Murra (1968) to signify an economy based on the interdependence of multiple altitudinal zones. So far, however, such vertical interaction has been demonstrated primarily on the level of the agricultural village; and larger scale interchanges are generally cited as evidence of either trade or invasion.

The highland textiles that have been found in the coastal areas appear to be elite textiles and were probably associated with burials or other offerings, as manifest in the very rare cases of known associations. The few archaeological excavations that have been carried out in refuse never seem to produce textiles equivalent to those found in burials. Current interpretations of the presence of these elite highland textiles in coastal burials are based on

extrapolation of our knowledge of the activities and practices of the Inca empire and its archaeological remains. The Inca hegemony did indeed seize control of the Peruvian coast and Inca elite textiles are found in evidence (J. Rowe, 1979).

But it is possible that verticality, the complex pattern of ecological and ideational vertical interaction that we see in ancient and even current indigenous culture on the village scale (Bastien, 1978), could have had some counterpart on a larger scale in the relationship between highland and coastal societies as a whole. It does not seem adequate to think of these coastally deposited elite highland textiles as simply resulting from trade or from battlefield burials of the fallen elite of an invading force. The elaborate textiles convey more of a sense of art and pomp than either of these simple functional explanations implies. Perhaps the elite burials in the desert were but part of an equation that guaranteed eternity for the heroes of the highlands in return for some archaeologically undetectable religious or ecological favor provided to the coastal residents. We can certainly assume that the amazing preservative qualities of the Peruvian desert were at least as apparent to the ancient Peruvians as they are to us today. The real explanation, as we increasingly discover for so many ancient Peruvian societal questions, most probably involves more religion and myth than concepts of trade and conquest connote. The art, technology, and iconography of textiles most certainly address these questions.

BIBLIOGRAPHY

- Bastien, Joseph W.
1978 Mountain of the condor. West Publishing Co., St. Paul.
- Bennett, Wendell Clark
1934 Excavations at Tiahuanaco. Anthropological Papers of the American Museum of Natural History, vol. XXXIV, part III. New York.
- Bennett, Wendell Clark, and Bird, Junius Bouton
1960 Andean culture history. Second and revised edition. The American Museum of Natural History, Handbook Series no. 15, New York.
- Bird, Junius Bouton
1964 Shaped tapestry bags from the Nazca-Ica area of Peru. Textile Museum Journal, vol. 1, no. 3, December, pp. 2-7. Washington.
- Bird, Junius Bouton, and Skinner, Milica Dimitrijevic
1974 The technical features of a Middle Horizon tapestry shirt from Peru. Textile Museum Journal, vol. 4, no. 1, pp. 5-13. Washington.
- Boero Rojo, Hugo
1980 Discovering Tiwanaku. The "Bolivia land of magic" series. Editorial Los Amigos del Libro, La Paz, Cochabamba.
- Chávez, Sergio Jorge
1982 Notes on some stone sculpture from the northern Lake Titicaca Basin. Ñawpa Pacha 19, 1981, pp. 79-91. Berkeley.
- Conklin, William J
1970 Peruvian textile fragment from the beginning of the Middle Horizon. Textile Museum Journal, vol. 3, no. 1, pp. 15-24. Washington.
- 1971 Chavin textiles and the origins of Peruvian weaving. Textile Museum Journal, vol. III, no. 2, December, pp. 13-19. Washington.
- 1975 An introduction to South American archaeological textiles with emphasis on materials and techniques of Peruvian tapestry. Irene Emery Roundtable on Museum Textiles, 1974 Proceedings, Archaeological Textiles, edited by Patricia L. Fiske, pp. 17-30. The Textile Museum, Washington.
- Cook, Anita G.
1983 Aspects of state ideology in Huari and Tiwanaku iconography: The Central Deity and Sacrificer. Investigations of the Andean past; papers from the First Annual Northeast Conference on Andean Archaeology and Ethnohistory, edited by Daniel H. Sandweiss, pp. 161-185. Cornell University, Latin American Studies Program, Ithaca.

- Créqui-Montfort, Guy de
1906 Fouilles de la mission scientifique française a Tiahuanaco. Ses recherches archéologiques et ethnographiques en Bolivie, au Chili et dans la République Argentine. Internationaler Amerikanisten-Kongress, vierzehnte Tagung, Stuttgart 1904, zweite Hälfte, pp. 531-550. Verlag von W. Kohlhammer, Berlin, Stuttgart, Leipzig.
- Eisleb, Dieter, and Strelow, Renate
1980 Altperuanische Kulturen; Tiahuanaco; III. Veröffentlichungen des Museums für Völkerkunde Berlin, n.F. 38. Abteilung Amerikanische Archäologie V. Museum für Völkerkunde, Berlin.
- Franquemont, Edward M.
ms. The ancient pottery from Pucara, Peru. Cambridge, Massachusetts, December 18, 1967.
- Hyslop, John
1976 An archaeological investigation of the Lupaca kingdom and its origins. Ph.D. dissertation, Columbia University. University Microfilms International, BWH76-24431. Ann Arbor.
- Julien, Catherine Jean
1983 Hatunqolla: A view of Inca rule from the Lake Titicaca region. University of California Publications in Anthropology, vol. 15. Berkeley, Los Angeles, London.
- Lapiner, Alan
1976 Pre-Columbian art of South America. Harry N. Abrams Inc., Publishers, New York.
- Menzel, Dorothy
1964 Style and time in the Middle Horizon. *Ñawpa Pacha* 2, pp. 1-106. Berkeley.
1969 New data on the Huari empire in Middle Horizon Epoch 2A. *Ñawpa Pacha* 6, 1968, pp. 47-114. Berkeley.
1977 The archaeology of ancient Peru and the work of Max Uhle. R. H. Lowie Museum of Anthropology, University of California, Berkeley.
- Mujica Barreda, Elías
1978 Nueva hipótesis sobre el desarrollo temprano del altiplano, del Titicaca y de sus áreas de interacción. *Arte y Arqueología* 5-6, pp. 285-308. La Paz, Bolivia.
- Murra, John Victor
1968 An Aymara kingdom in 1567. *Ethnohistory*, vol. 15, no. 2, Spring, pp. 115-151. Buffalo.
- Ñúñez del Prado Béjar, Juan Víctor
1972 Dos nuevas estatuas de estilo pucara halladas en Chumbivilcas, Perú. *Ñawpa Pacha* 9, 1971, pp. 23-32. Berkeley.

- Posnansky, Arthur
 1945 Tihuanacu; la cuna del hombre americano. Tihuanacu; the cradle of American man. Vols. I and II. J. J. Augustin Publisher, New York.
- 1958 Tihuanacu; la cuna del hombre americano. Tihuanacu; the cradle of American man. Vols. III and IV. Ministerio de Educación, La Paz, Bolivia.
- Ravines, Rogger Hernán
 1965 Un unco tiahuanacoide procedente de Ilo. Boletín del Museo Nacional de Antropología y Arqueología, año 1, no. 3, otoño, p. 2. Lima. [The article is unsigned.]
- Rivera, Mario A.
 1978 Nuevos aportes sobre el desarrollo cultural altiplánico en los valles bajos del extremo norte de Chile, durante el Período Intermedio Temprano. Actes du XLIIe Congrès International des Américanistes, Paris, 2-9 Septembre 1976, vol. IV, pp. 31-38. Sociéte des Américanistes, Paris.
- Rowe, Ann Pollard
 1972 Interlocking warp and weft in the Nasca 2 style. Textile Museum Journal, vol. III, no. 3, December, pp. 67-78. Washington.
- 1978 Technical features of Inca tapestry tunics. Textile Museum Journal, vol. 17, pp. 5-28. Washington.
- Rowe, John Howland
 1962 Chavín art; an inquiry into its form and meaning. The Museum of Primitive Art, distributed by University Publishers, Inc., New York.
- 1979 Standardization in Inca tapestry tunics. The Junius B. Bird Pre-Columbian Textile Conference May 19th and 20th 1973, Ann Pollard Rowe, Elizabeth P. Benson, Anne-Louise Schaffer, editors, pp. 239-264. The Textile Museum & Dumbarton Oaks, Washington.
- Rowe, John Howland, and Brandel, Catherine Terry
 1971 Pucara style pottery designs. Ñawpa Pacha 7-8, 1969-1970, pp. 1-16. Berkeley.
- Sawyer, Alan Reed
 1963 Tiahuanaco tapestry design. Textile Museum Journal, vol. 1, no. 2, pp. 27-38. Washington.
- Uhle, Max
 1903 Pachacamac. Report of the William Pepper, M.D., LL.D., Peruvian expedition of 1896. The Department of Archaeology of the University of Pennsylvania, Philadelphia.
- Wassén, Sven Henry
 1972 A medicine-man's implements and plants in a Tiahuanacoid tomb in highland Bolivia. Etnologiska Studier 32. Göteborgs Etnografiska Museum, Göteborg.

Zimmern, Nathalie H.
 1949 Introduction to Peruvian costume. The Brooklyn Museum. The
 Brooklyn Institute of Arts and Sciences, New York.

KEY TO ILLUSTRATIONS

Unless otherwise indicated, all photographs and drawings are by the author. In some cases, for ease of comparison, specimens have been rotated from their original orientation. In such cases, the degree of rotation is noted.

Page 31

Fig. 7. After Rowe and Brandel, 1971, detail of fig. 4; rotated 90° from original.

Page 33

Fig. 11. After Franquemont, ms., detail of fig. 10 top.

Fig. 12. After Rowe and Brandel, 1971, fig. 9; rotated 90° from original.

Page 35

Fig. 15. After Rowe and Brandel, 1971, detail of fig. 57a.

Fig. 17. After Posnansky, 1945, vol. II, figs. 113a, 115.

Page 37

Fig. 20. After Posnansky, 1958, vol. III, pl. XCVIII.a; rotated 90° from original.

Fig. 21. Tiahuanaco grave lot #22/5833, Cemetery 3, Pisagua, Chile, Museum of the American Indian, New York.

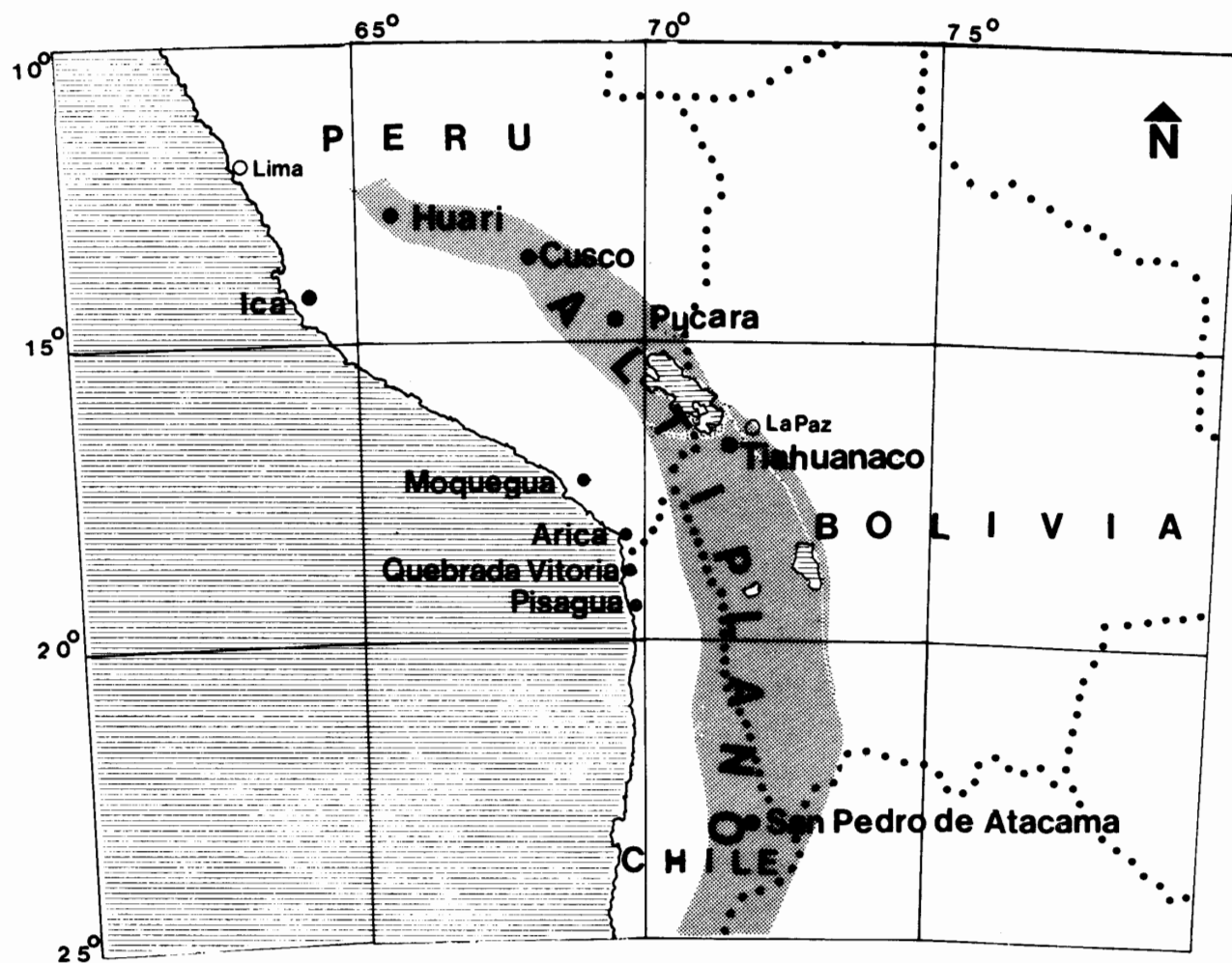
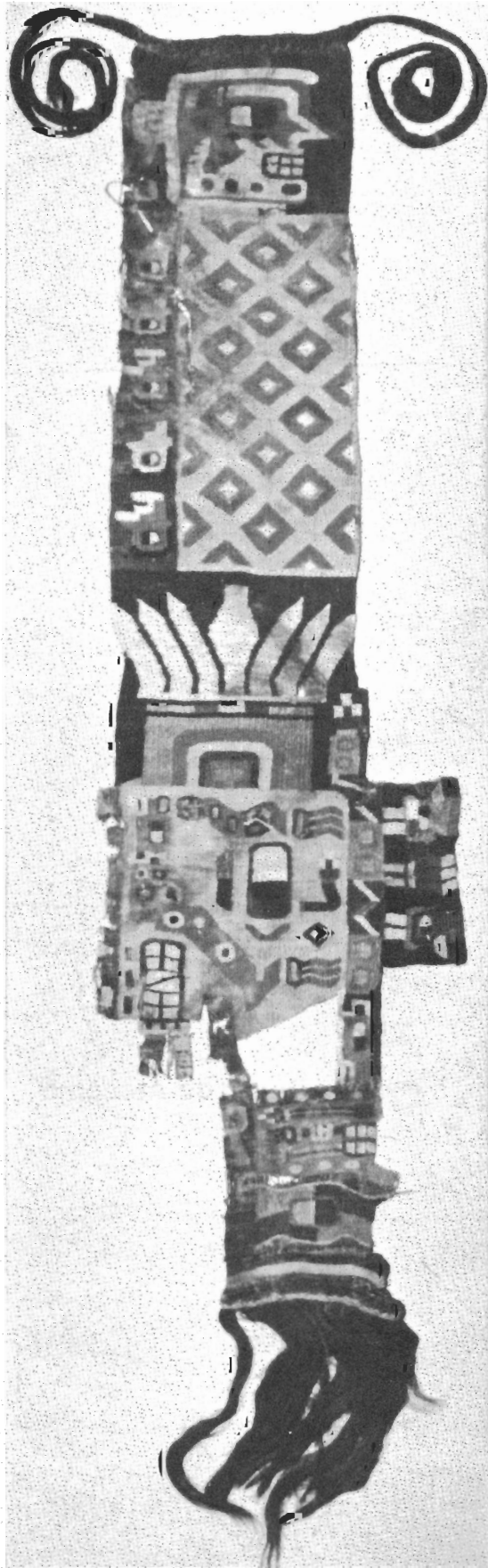
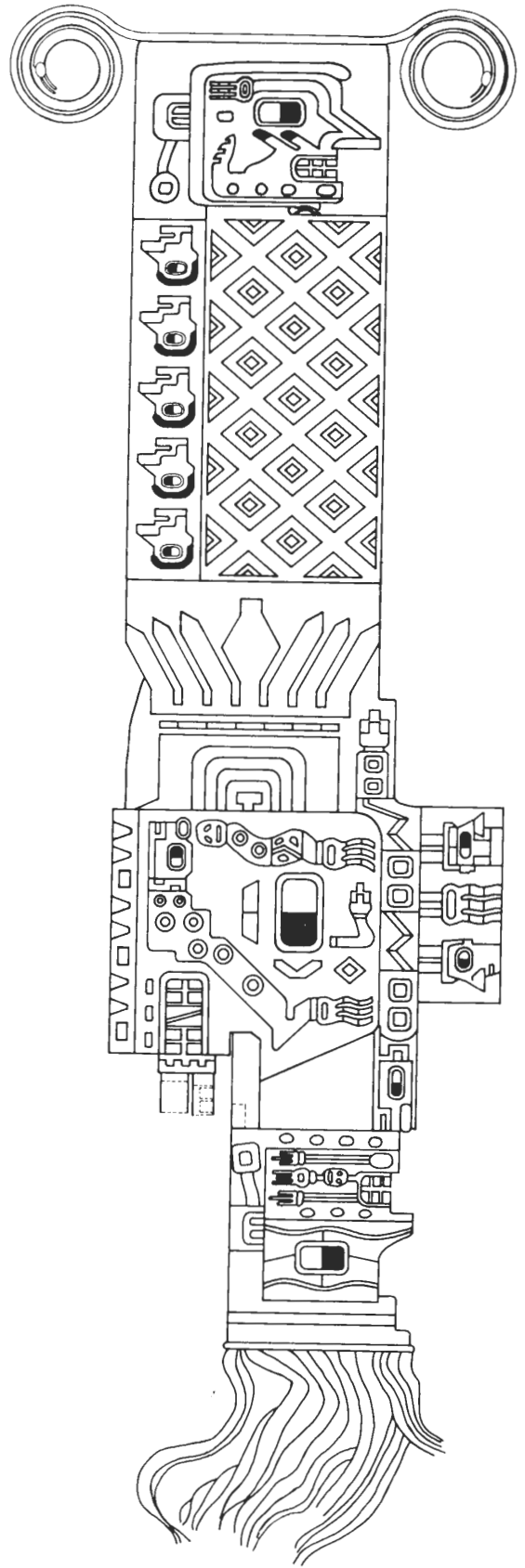


Fig. 1, locations of coastal sites where Pucara and Tiahuanaco textiles with interlocked tapestry construction are reported to have been recovered.



2

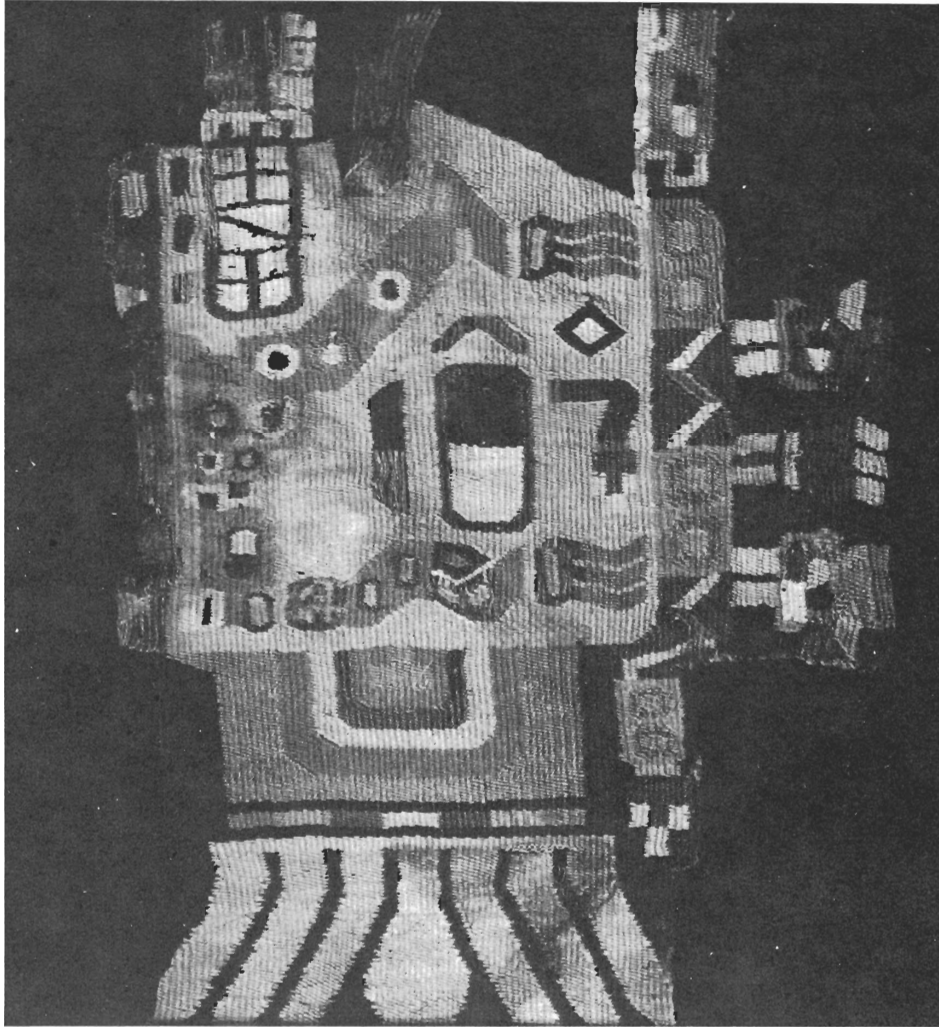


3

T1, Pucara shaped textile, private collection. Fig. 2, warp direction vertical; fig. 3, drawing of design of Pucara shaped textile.



Fig. 4, T1, detail of textile showing top head and portion of oblique interlaced cord from which the textile was presumably suspended.



5

COLOR KEY








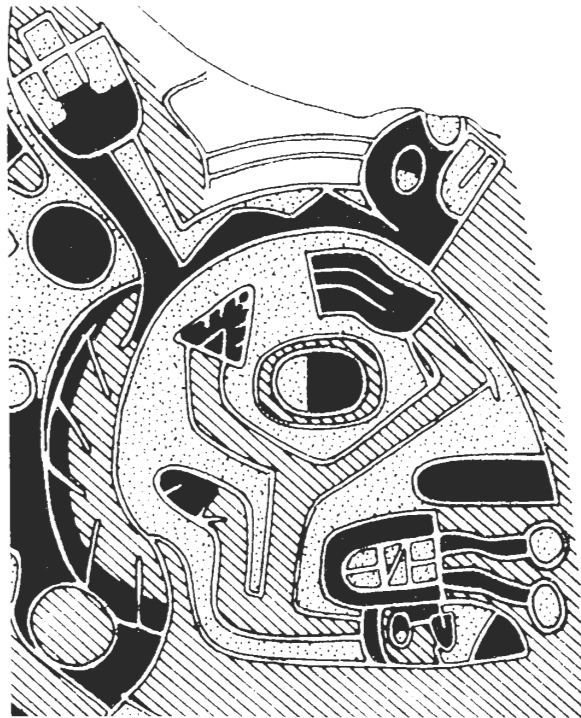
	White		Pink
	Black		Red
	Yellow		Cream
	Orange		

Fig. 5, T1, detail of Pucara shaped textile showing central head; reverse side of textile from that shown in fig. 2. Color key applies to figs. 7, 9, 12, and 15.

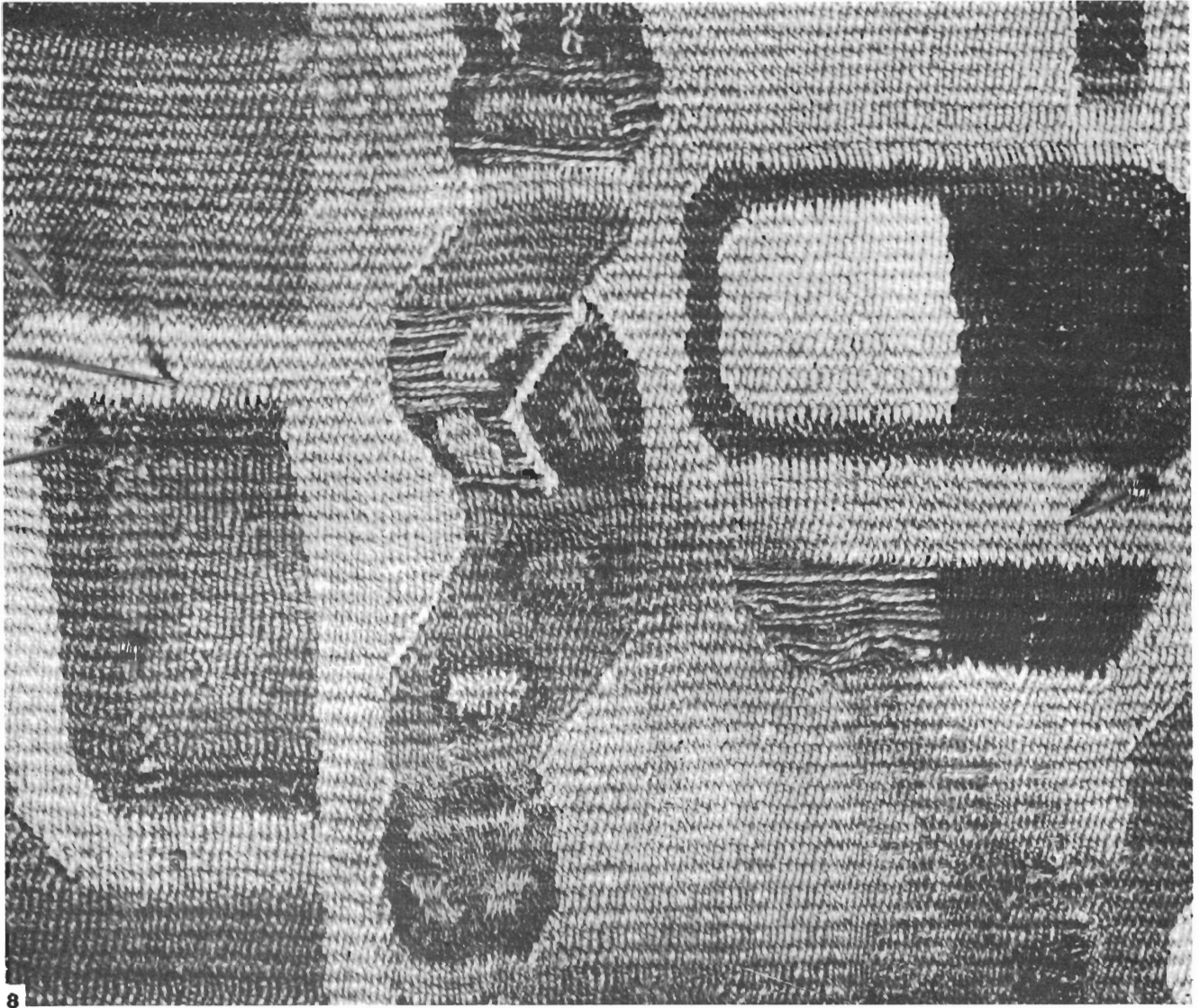


6

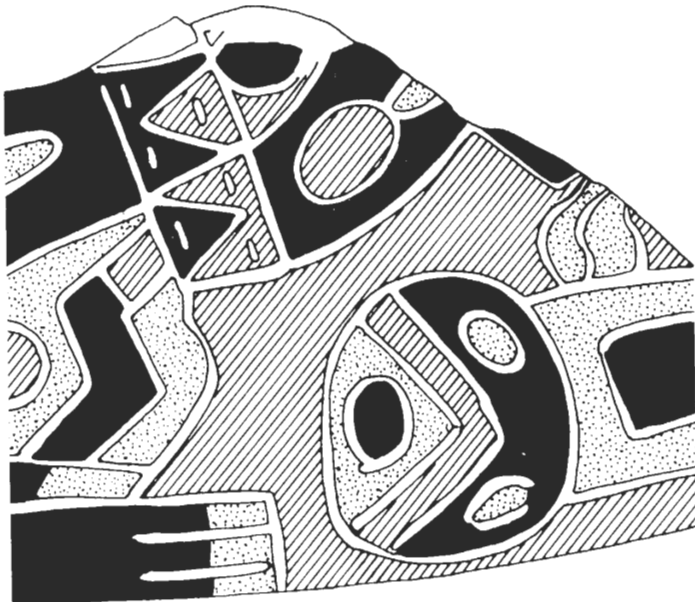


7

Pucara bowl, Museo Nacional de Antropología y Arqueología, Lima. Fig. 6, photo Robert Sonin; fig. 7, detail of left figure on bowl. See Key to Illustrations.

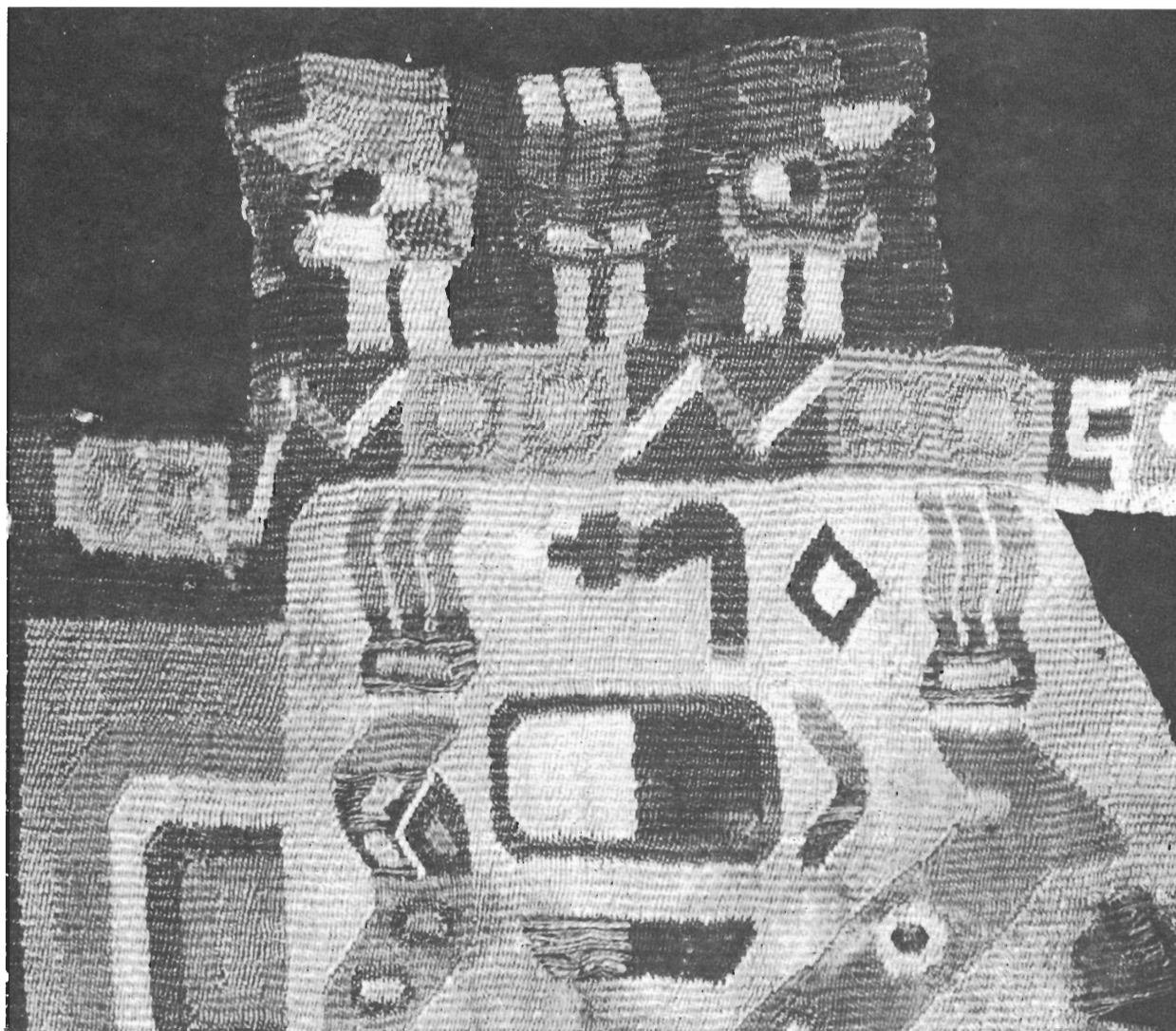


8



9

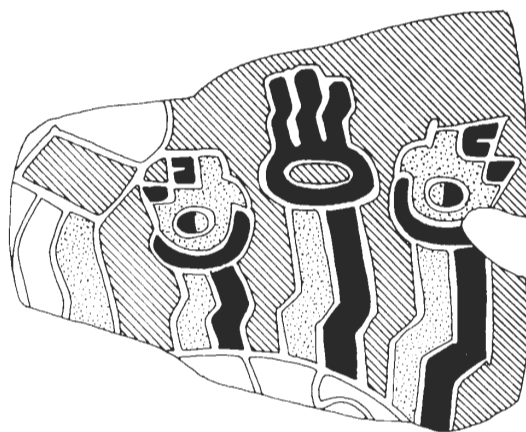
Fig. 8, T1, central face detail showing serpent representations; warp direction horizontal; fig. 9, drawing of incised Pucara sherd showing serpent face, after Rowe and Brandel (1971, detail of fig. 8).



10

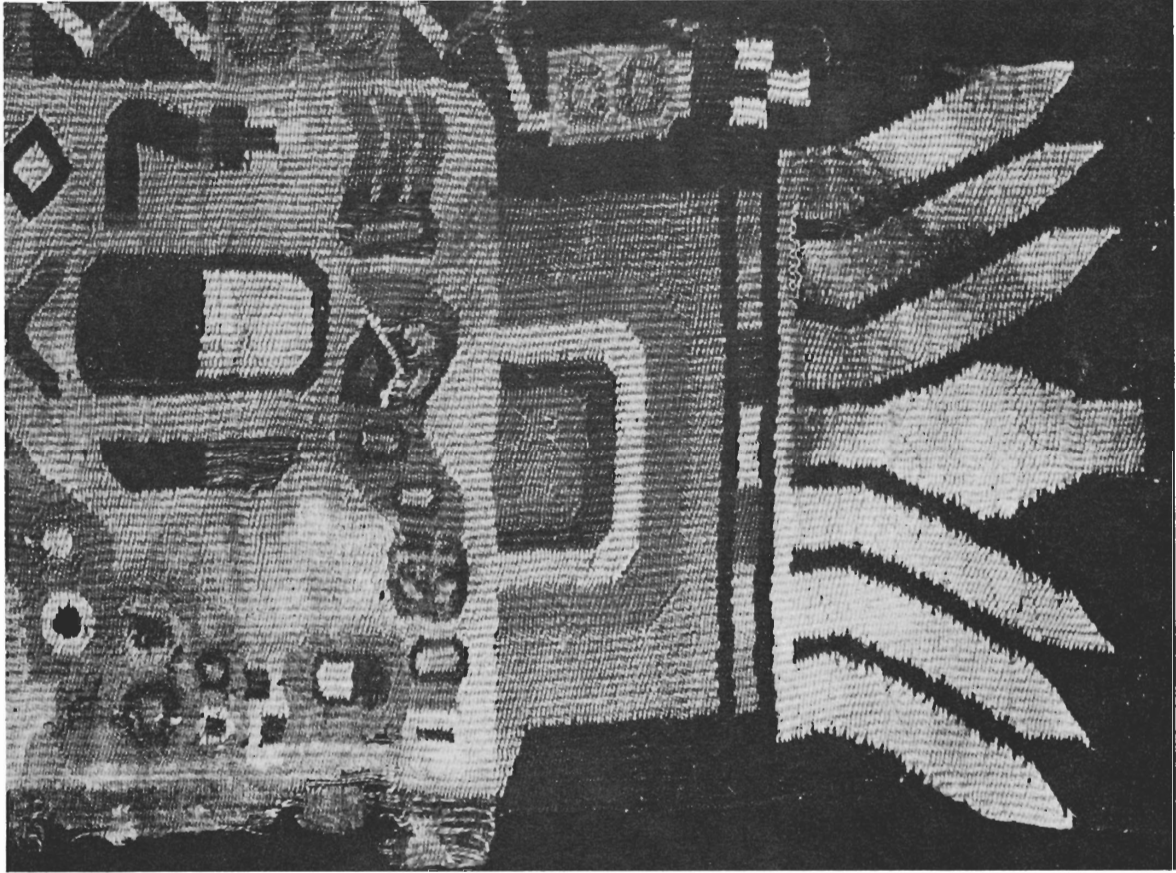


11



12

Fig. 10, T1, central face detail showing headdress, warp direction horizontal; fig. 11, design from Pucara sherd showing headband; fig. 12, drawing of Pucara sherd showing triple appendages. See Key to Illustrations.

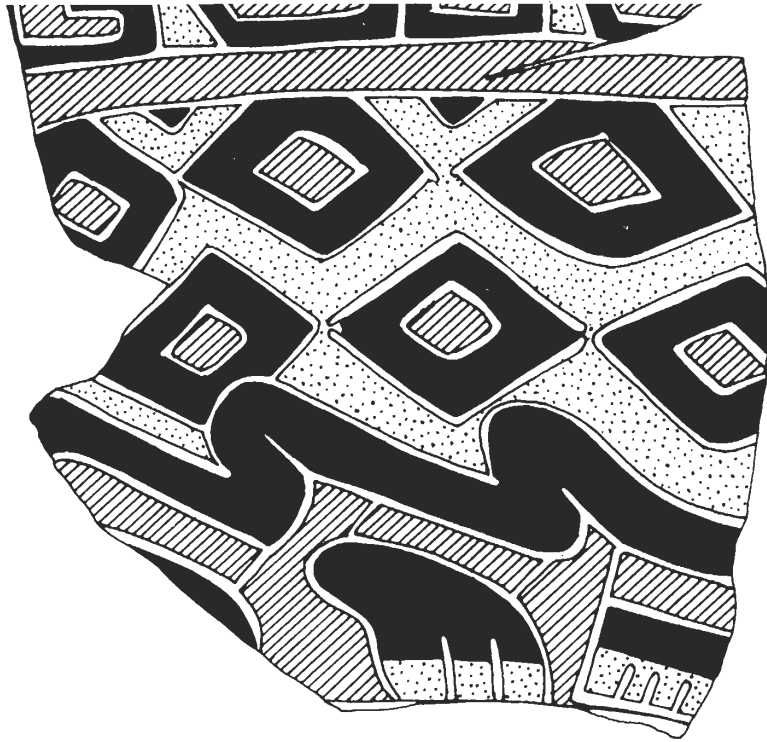


13



14

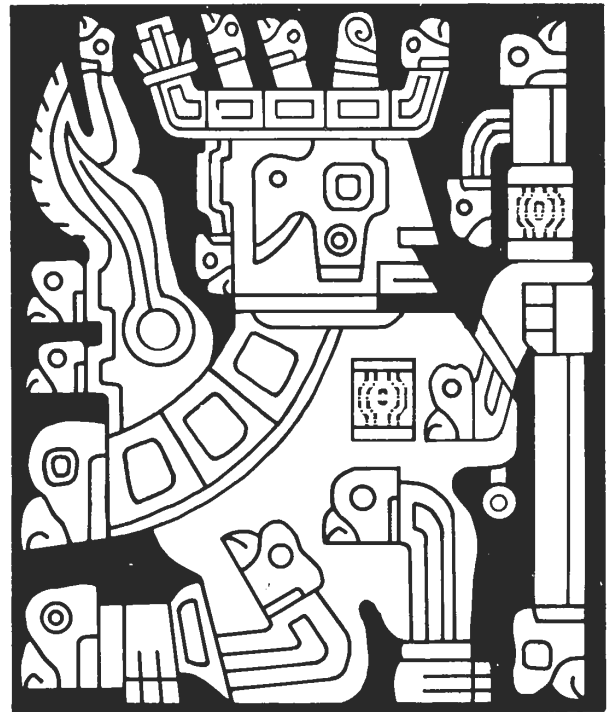
Fig. 13, T1, detail showing collar array of central face; reverse side of textile from fig. 2; warp horizontal; fig. 14, Pucara sherd showing frontal face with collar array, Museo Nacional de Antropología y Arqueología, Lima.



15

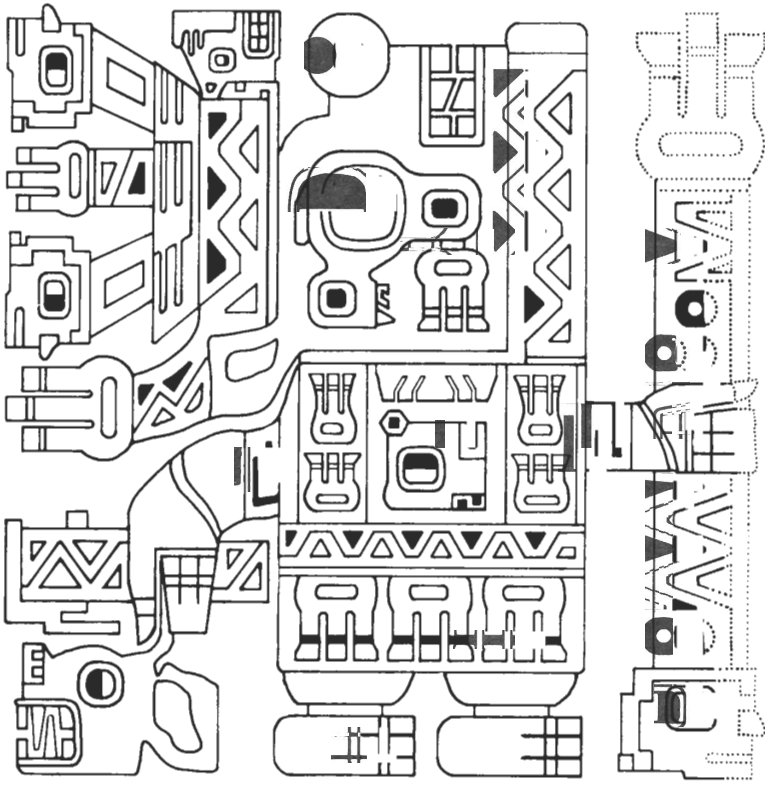


16



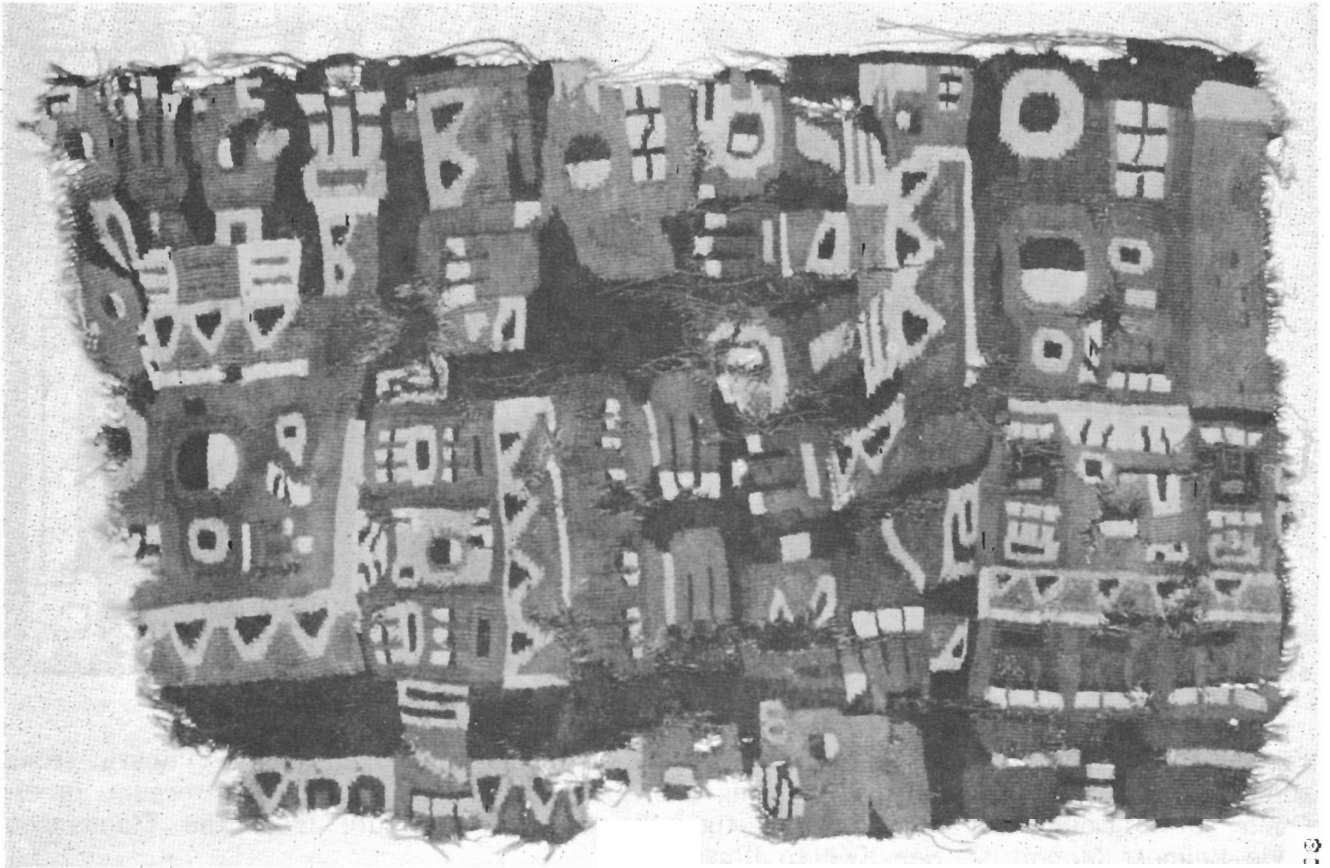
17

Fig. 15, design from Pucara sherd showing diamond pattern; fig. 16, Pucara stone sculpture from Pokotía, Bolivia, showing E-shaped ear and headband with serpent faces, Open Air Museum, La Paz, Bolivia; fig. 17, drawing of figure from the Tiahuanaco style Bennett Monolith. See Key to Illustrations.



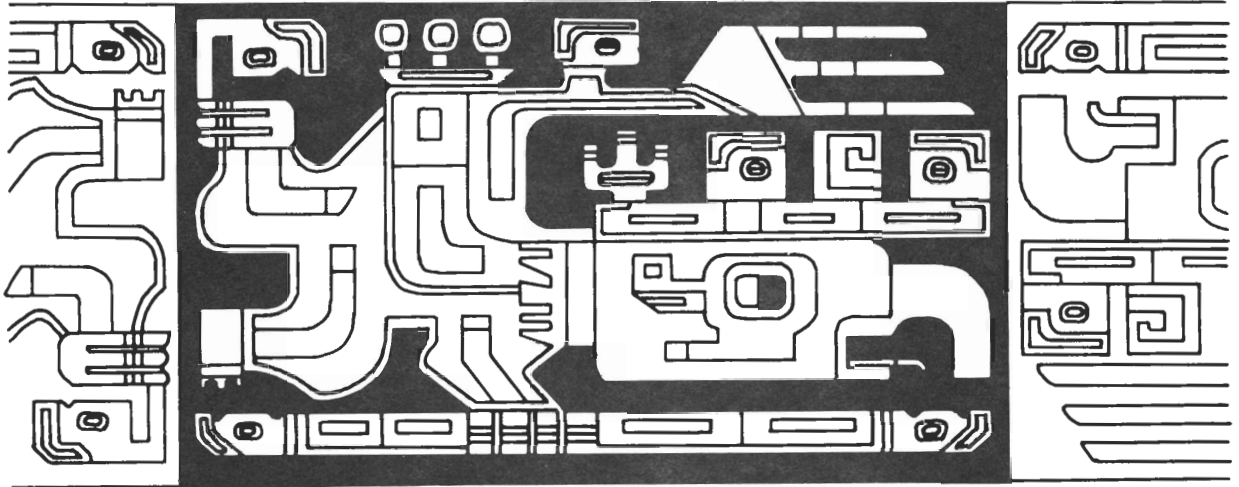
19

Fig. 18, T2, Quebrada Vitoria interlocked tapestry fragment, courtesy private collection; warp direction is vertical; fig. 19, drawing of Quebrada Vitoria textile design utilizing portions of the two incomplete figures.



18

20



21

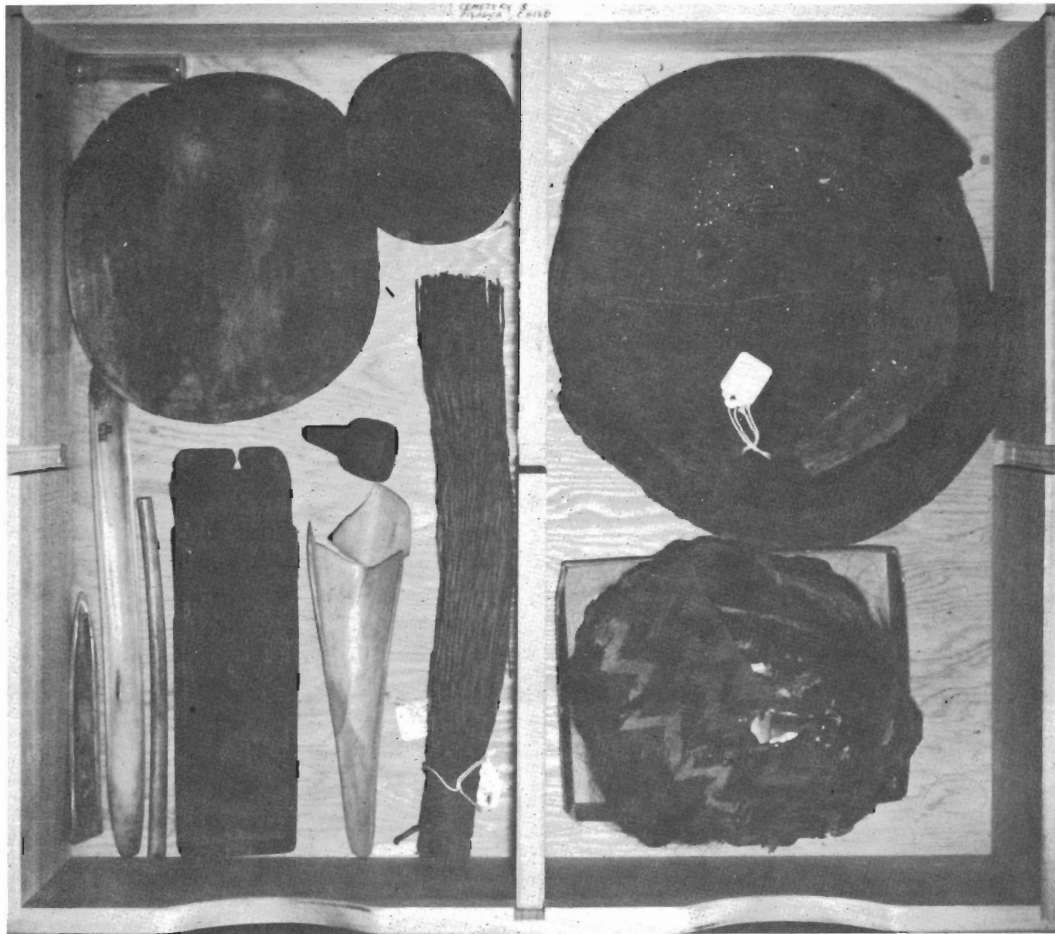


Fig. 20, T3, Punta Pichalo textile fragment, drawing of design detail; warp direction probably vertical; fig. 21, Pisagua grave lot, Museum of the American Indian, New York; includes a wooden plate, a snuff tablet, bone implements, fiber whisk, basketry, portions of human skull, and textiles. See Key to Illustrations.

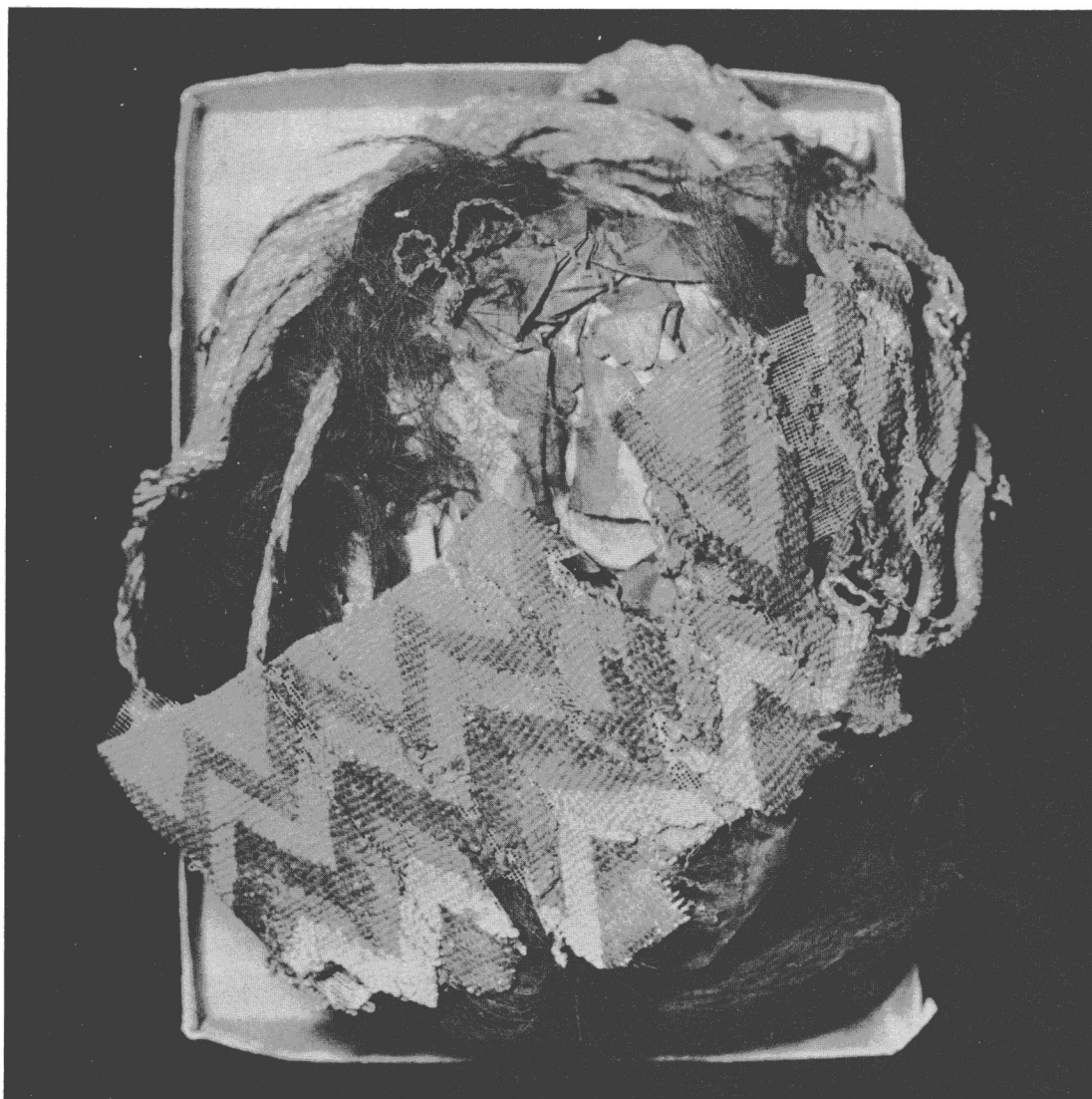
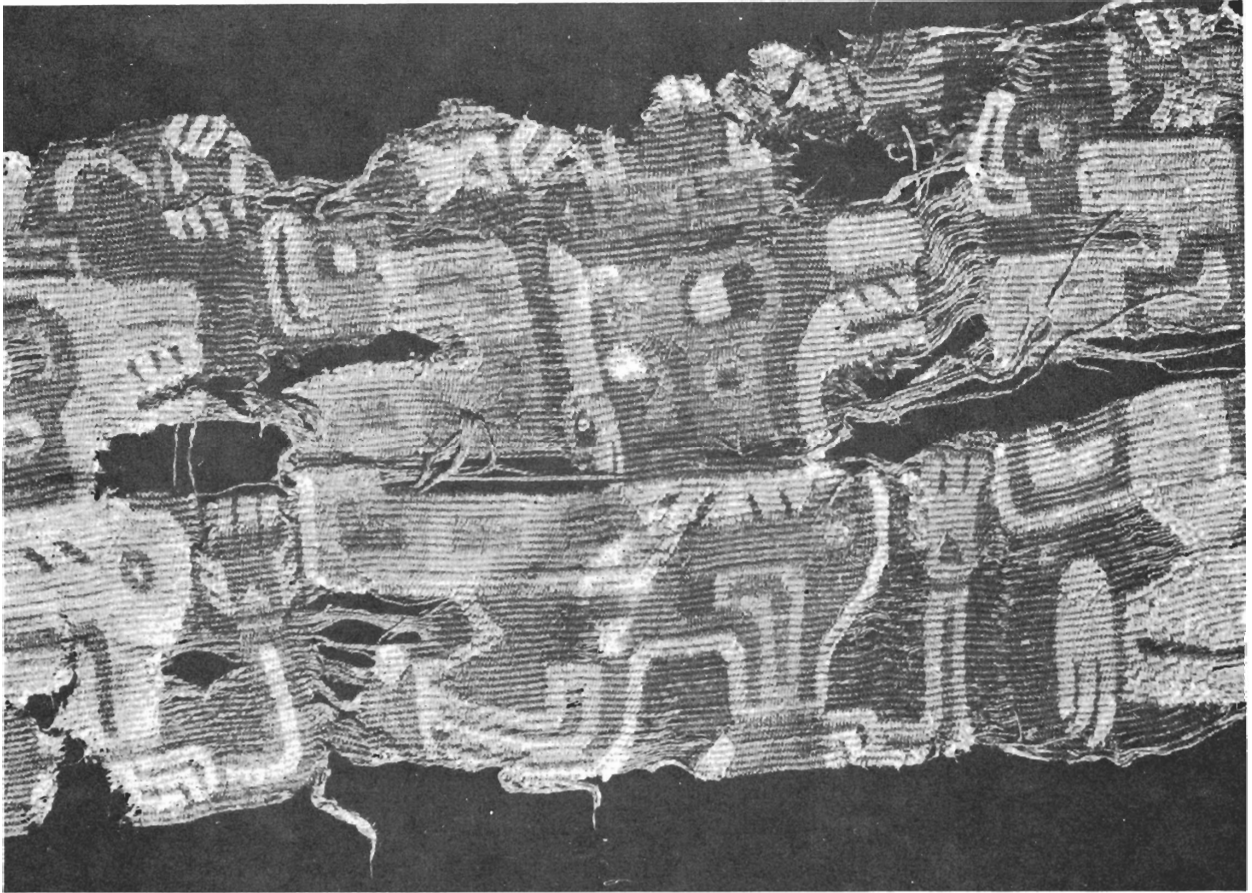
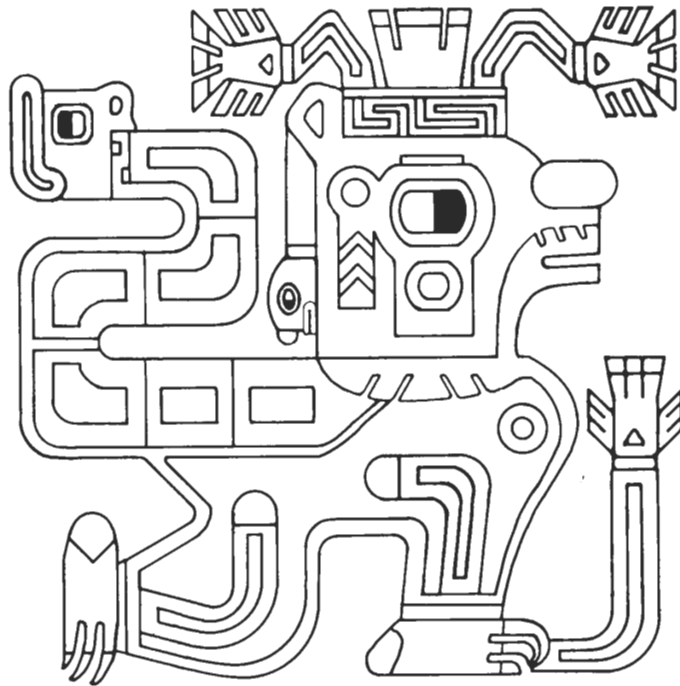


Fig. 22, human skull wrapped in a headband with a zigzag design in tapestry weave; from Pisagua grave lot shown in fig. 21.



23



24

T4, portion of interlocked tapestry headband from Pisagua grave lot, Museum of the American Indian, New York. Fig. 23, warp horizontal; fig. 24, drawing of design.

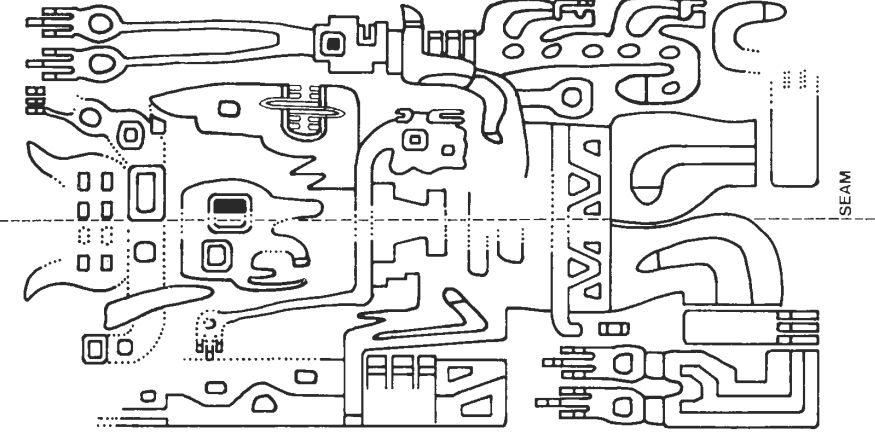


Fig. 25, gigantic Tiahuanaco style carved stone head with headband, Open Air Museum, La Paz, Bolivia.

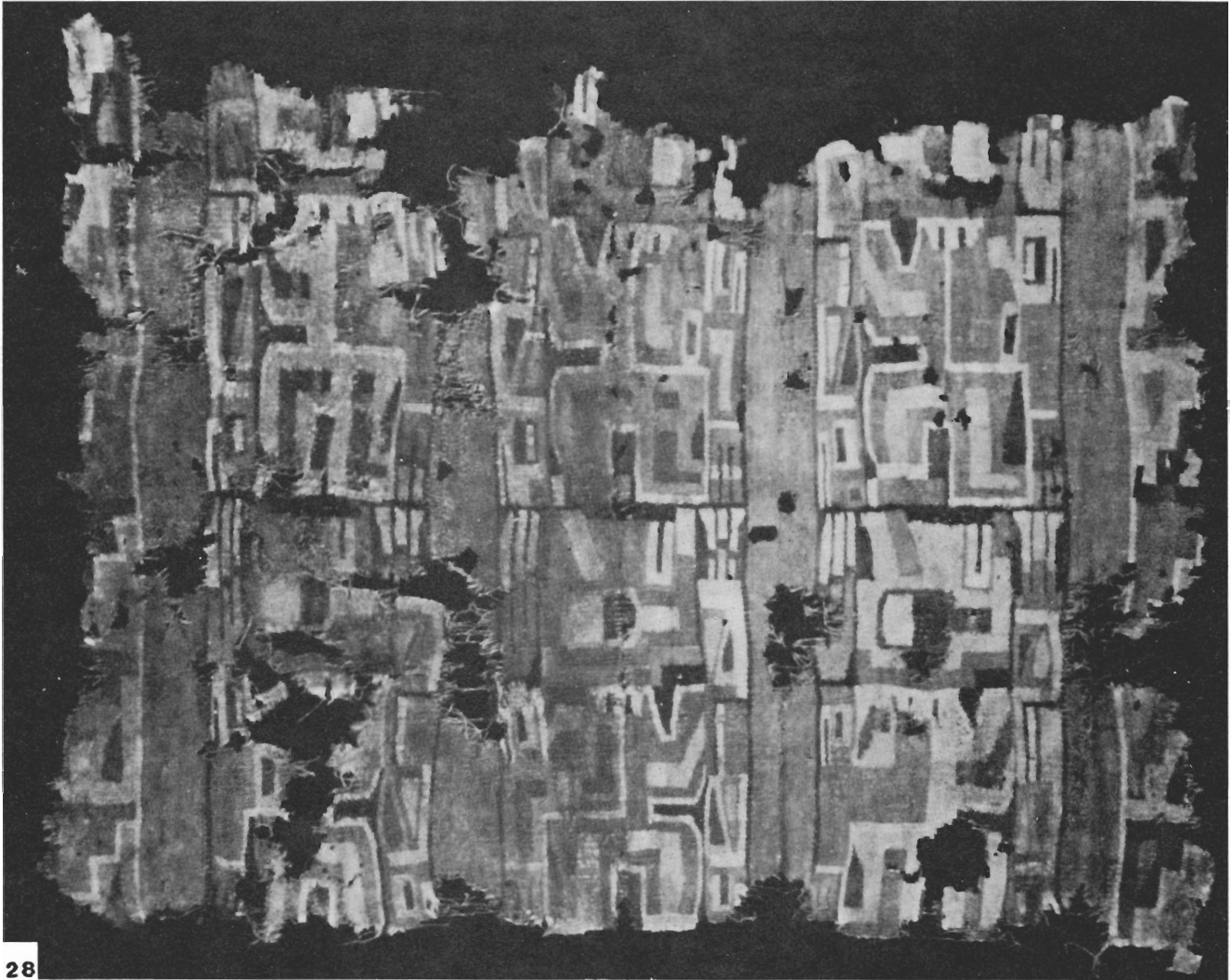


26

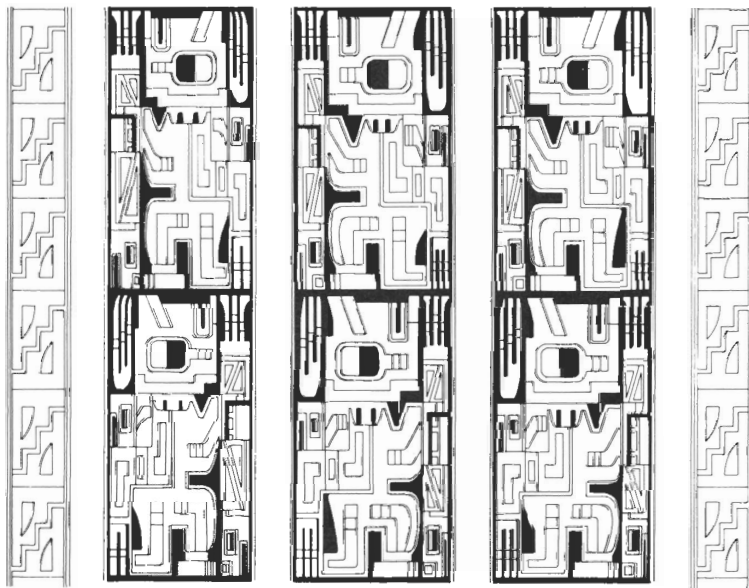
T5, Loreto Viejo tunic fragment, courtesy Museo Arqueológico San Miguel de Azapa, Arica, Chile. Fig. 26, detail of the irregular textile fragment showing where two weft selvages abut with the design crossing the intersection; warp direction horizontal; fig. 27, drawing of the Loreto Viejo textile design.



27

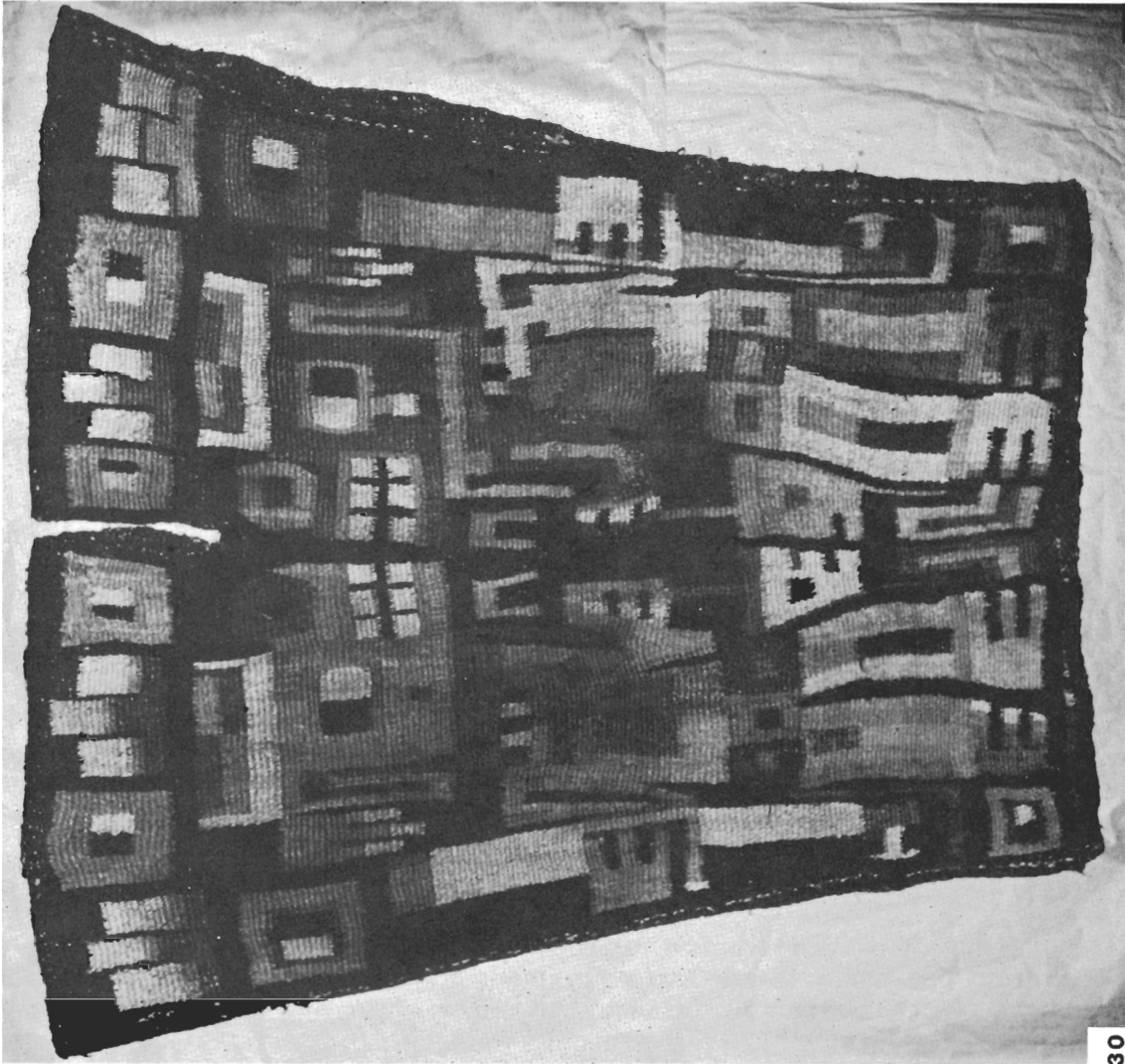


28

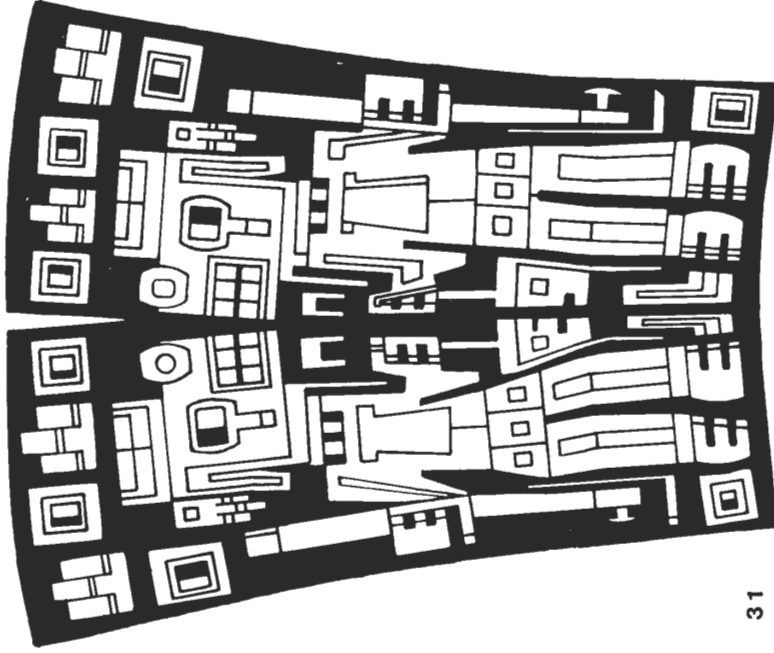


29

T6, Moquegua interlocked tapestry fragment, courtesy American Museum of Natural History, New York. Fig. 28, warp horizontal; fig. 29, drawing of textile design.

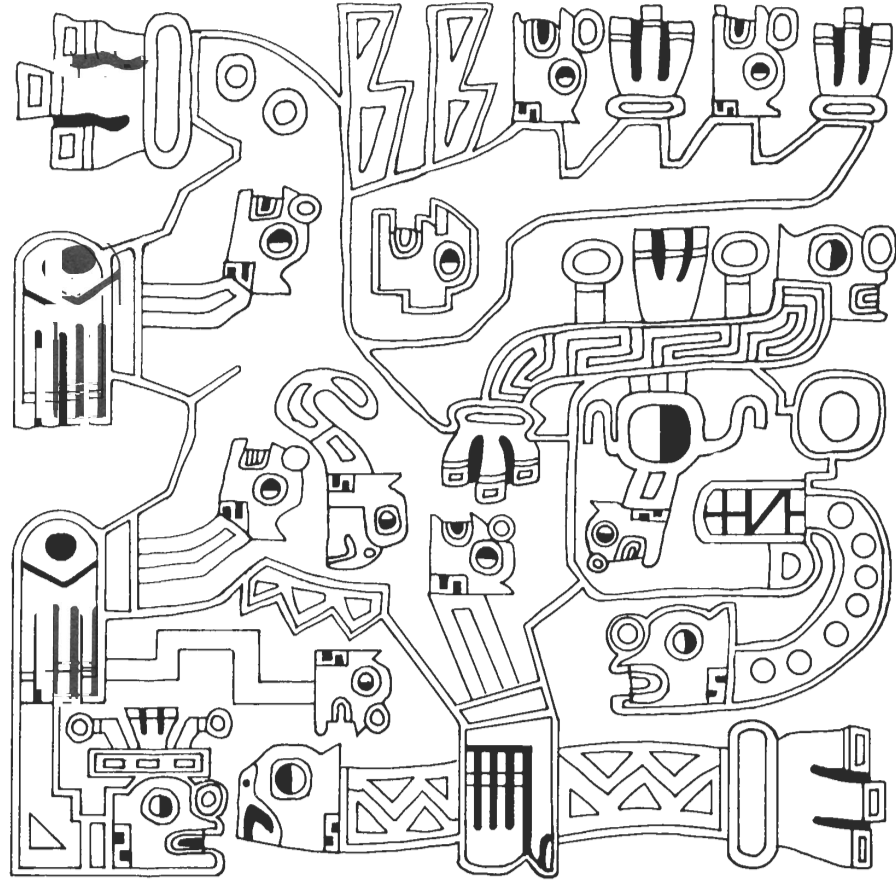


30

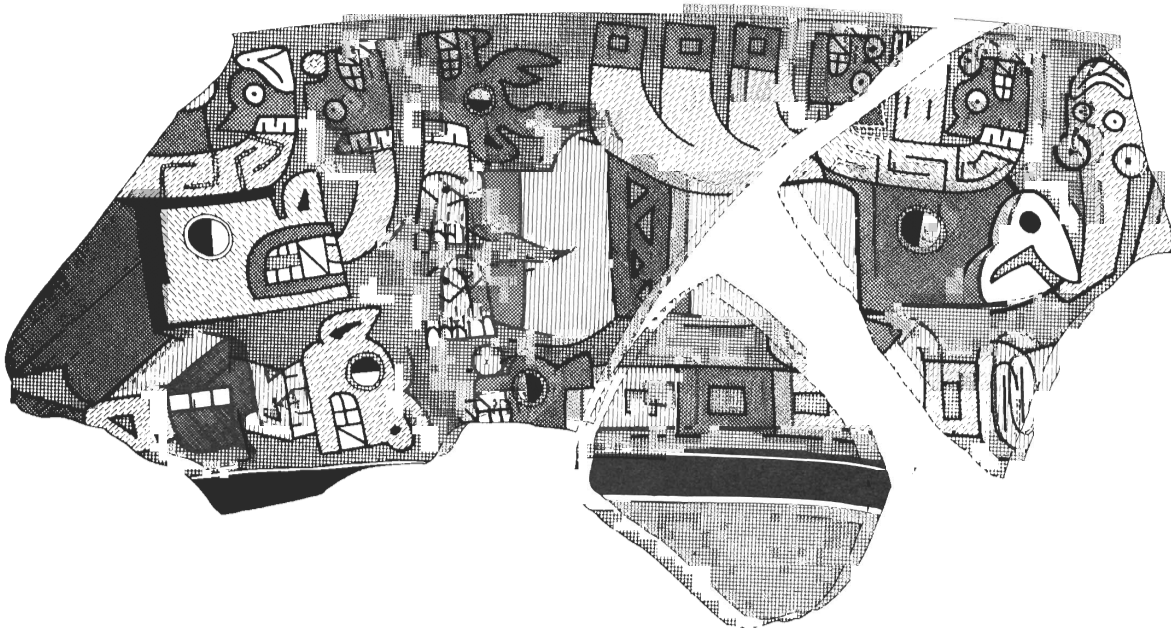


31

T7, Ilo interlocked tapestry tunic, courtesy Museo Nacional de Antropología y Arqueología, Lima. Fig. 30, complete tunic, warp direction is horizontal; fig. 31, drawing of Ilo textile design.



32



33

Fig. 32, drawing of design from a textile fragment (private collection) that is apparently from the same textile as a fragment in the Textile Museum (compare Conklin, 1970, fig. 6); fig. 33, drawing of Huari "floating angels" from near Conchopata, after Menzel (1977, fig. 91).

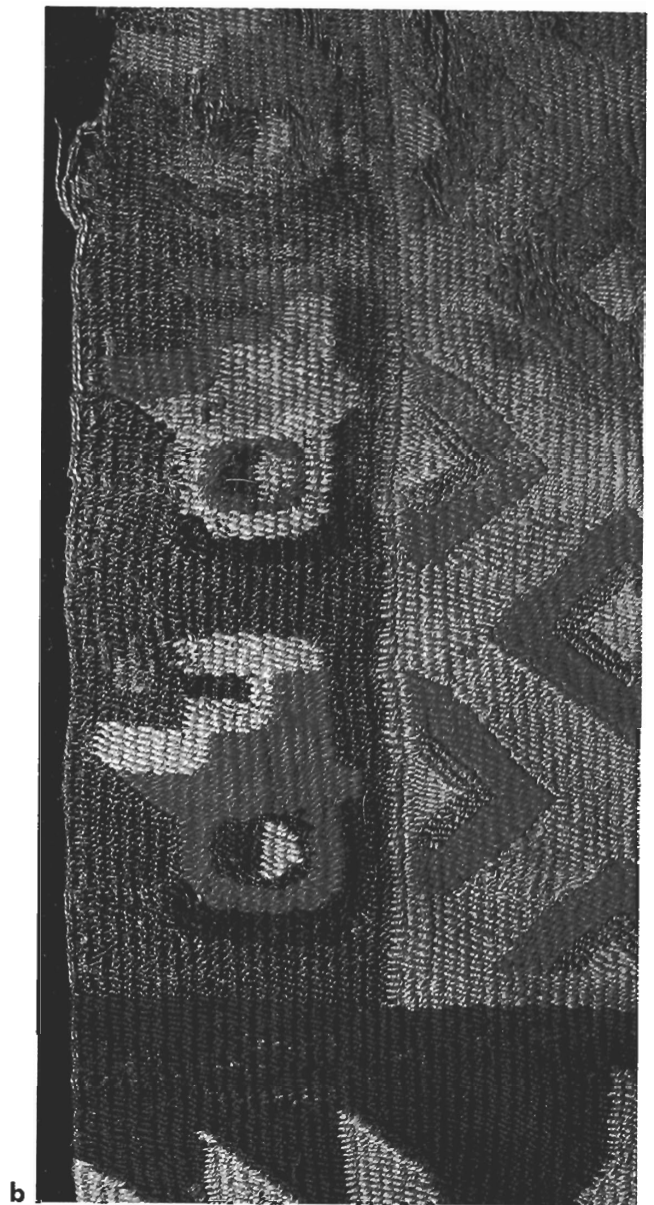
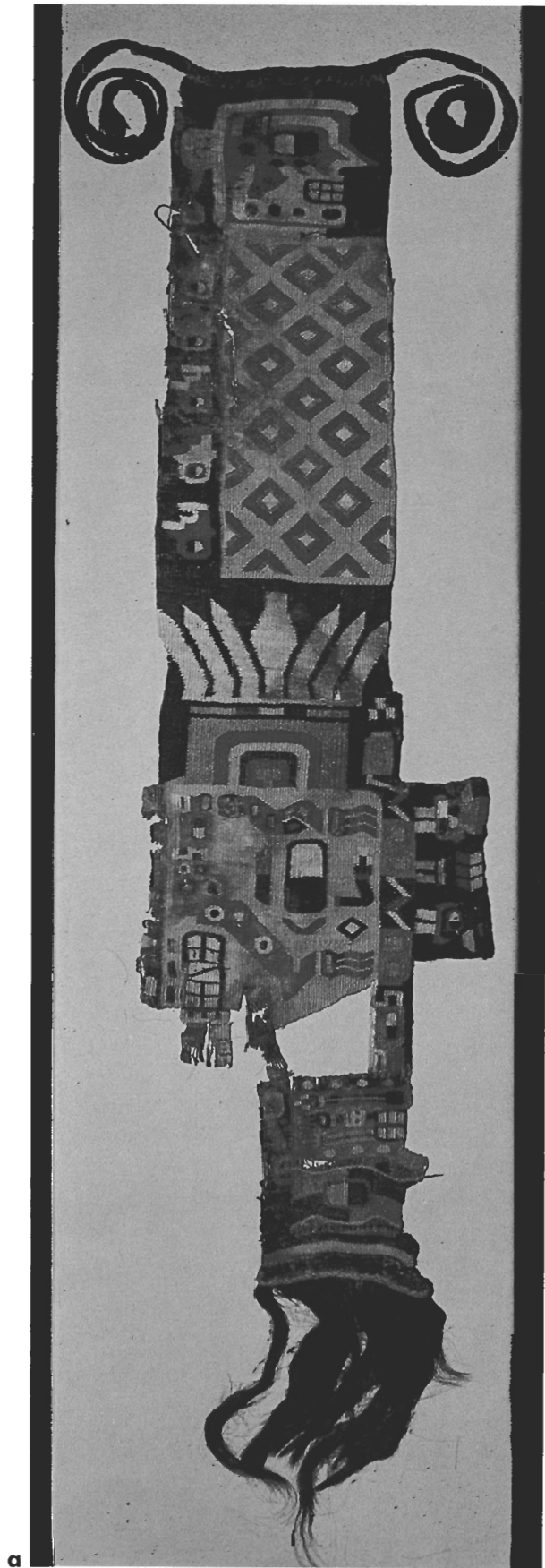


Plate I

Fig. a, Pucara shaped textile; fig. b, detail of the textile. See figs. 2, 3. (Conklin photos)