

SIX BAGS WITH WOVEN POCKETS FROM PRE-COLUMBIAN PERU

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Bags of numerous styles constitute one of the more plentiful varieties of pre-Spanish Peruvian textile artifacts. With some exceptions, these bags or pouches, when made from woven fabric, have been constructed of individual four-selvage rectangular webs. Generally, each of these cloths was woven to the desired size and proportions, most commonly with the web width equal to the bag width and the web length twice the bag depth, the cloth being folded at the bottom of the bag. Certain variations from this basic practice occur which tend to point up the detailed planning that took place before the weaving of the cloth was started. Two such variations have been noted previously: the shaping of the web during weaving, to make the top of the bag narrower than the base (Bird 1964), and the use of bare warps, left unweaved at the middle of the web, to form fringe at the bottom of the bag (VanStan, 1967, pp. 5-6, figs. 3, 5). Now another variant has been noted. In this, the cloth was woven to provide for small free-hanging pockets that form tabs on the outer faces of the bag. Six examples having these pockets have been examined. Five are undecorated bags, from Ica; the other is a patterned bag of unrecorded provenience.

The five bags from Ica are all basically alike, but no two are identical. Each bag was shaped during weaving; each has a long fringe produced by the doubling of the unweaved warp yarns and, in addition, has three small tab-like pockets on each bag face. These three pockets form a continuous row across the bag, with the bottoms of the pockets more or less in line with the bottom of the bag. The pockets open to the inside of the bag and, on the outside, each appears as a little tab with a fold along the lower edge. One of the bags is shown in figure 1. All of this group are small. The average depth is 8 in. (20.3 cm.); the average width at the mouth approximately 5 in. (12.7 cm.), and at the lower edge about 6 3/4 in. (17.1 cm.). The individual specimens show some differences in size, in proportions of length to width, in their fringe lengths (Table 1), and also in a few other details of their construction.

The fabric of each bag consists of a single web constructed with a cloth section at each end and a long expanse of unweaved warps between. Each web is monochrome and differs from the webs of the other four bags somewhat in coloring and texture. Each web is fairly firm, has three heading cords at each end, and is woven in a one-over-one plain weave. Both the warps and wefts are clearly visible and are approximately alike within each web (Table 2). The yarns are evenly spun and the weaving is generally of good quality. Four of the bags are of cotton; one is of wool. The two end sections of each web were woven to match each other, with the parts next to the heading cords, where the weaving was started, narrower than at the points where the weaving terminated. To make the pockets, two kelim-type slots were woven into each of the end sections of the web. These slots were placed equidistant from the side selvages and from each other, with each slot twice as long as the

desired depth of the pocket. Beyond the slots, the weaving was continued with the wefts crossing the full width of the web, for a distance approximately equal to the depth of the pockets (fig. 2a). This meant that the length of each woven section of the web was equal to the bag depth plus twice the pocket depth.

After the weaving was completed, each of the pocket sections (between the side selvages of the bag and the kelim slots, and between the two kelim slots) was folded in half crosswise and the sides of each pocket were sewed together with whipping stitches. Following this, one end of the web was folded back onto the other, with the pocket tabs on the outside, so that the end selvages, with their two sets of heading cords, became the mouth of the bag and the superimposed side selvages, sewed together with whipping stitches, made the sides of the bag (fig. 2b). This put the pocket openings on the inside of the bag (fig. 2c) and left the tabs hanging on the outside. With the two ends of the web together, the bare warps were automatically doubled back on themselves, producing a loop fringe. The twisting together of small groups of these yarns made this into a cord fringe.

The largest and best preserved of the bags (A), shown in figure 1, is now a light gold-color. It is of cotton and may or may not have been dyed. This specimen is 5 1/2 in. (14.0 cm.) across the top and spreads to 8 in. (20.3 cm.) at the bottom. The 2 1/2-in. (6.3-cm.) increase in the width of this web was obtained by a gradual spreading of the warp yarns, not by an increase in the number of yarns, so that the warp count at the top of the bag is higher than that at the bottom of the bag, and the weft count tends to increase as the warp count diminishes (Table 2). This spreading of the warps was handled so consistently that there are no differences between the corresponding counts of the two ends of the web. The depth of this bag is 9 in. (22.8 cm.) and the fringe length is 18 1/4 in. (46.3 cm.). Adding to this the lengths required for the pockets, each is 2 3/8 in. (6.0 cm.) deep, it can be estimated that the total warp length required, allowing a little for the take-up of weaving and the twisting of the fringe, was about 65 in. (165.1 cm.). The pockets were placed, in this case, so the pocket openings on the inside of the bag are 2 1/4 in. (5.7 cm.) above the bottom of the bag and, on the outside, the tab-like lower ends of the pockets partially conceal the lower edge of the body of the bag. Both faces are alike. The three pocket tabs, as they appear on one outer face of the bag, are shown in figure 3. Two of these have been turned back to reveal the underfolds at the mouths of the pockets.

In addition to the shaping of the web during the weaving, and the woven provisions for the tab-like pockets and the fringe, the bottom of this bag has been closed by weaving, rather than by sewing. After the last wefts of the two halves of the bag had been put in and one end of the web was placed against the other end, three additional wefts (part of the third is lacking) were inserted through the two superimposed layers of the warp yarns. These extra wefts hold the front and back of the bag together and form an inconspicuous fringe heading (fig. 3). Following this last bit of weaving, four warp ends were twisted together to make

each strand of the cord fringe.

Both the heading cords, and the yarns used as the terminal wefts closing the bottom of the bag, consist of two of the weft yarns (Table 2) twisted together with a soft Z-twist. The same kind of yarns have been used for the sewing. There are three heading cords at each end of the web and the ends of these have been extended with tied-on yarns, of the same type, which are knotted together about 3 1/2 in. (8.9 cm.) from the mouth of the bag to form a loop handle. Other than the fringe and the tabs, this bag has no ornamentation of any kind.

Another of the bags (B) differs only slightly from the first. It is a light golden brown, noticeably darker than the first. In proportion it is a little longer and narrower, the pocket-tabs are proportionately deeper (Table 1), and the pockets have been placed somewhat higher, so that their lower edges fall above the lower edge of the bag. The fabric is coarser (Table 2). The wefts used to close the bottom of the bag have been inserted in the same way but have not been put in carefully. Eight warp ends appear to have been twisted together to form the cord fringe. In other respects, including the use of matching yarns for the heading cords and sewing thread, this bag is very much like the first. The shaping of the web, although technically the same, was not so well done. The ends of the heading cords are broken and the bag has a number of small holes that appear to have been gnawed by rodents.

A third example (C) having the same construction is also brown but of a darker shade than the preceding. It is smaller and has proportionately deeper pockets (Table 1). Like B, it is comparatively longer and narrower than A, and the lower edges of the pockets are above the lower edge of the main body of the bag. This third bag differs from the others in a few details. It has a distinct crêped appearance, the heading cords are of contrasting dark brown wool, instead of cotton matching the weaving yarns (Table 2), and the fringe at the bottom of the bag is longer than that of any of the other bags.

The ends of the heading cord yarns have been broken off close to the fabric on one side of the bag. On the other side, they continue for 4 1/2 in. (11.4 cm.), are knotted together with a series of four knots and, originally, may have been finished with a terminal tassel. The closing of the lower edge of this bag has been handled less skillfully than that of the first example, although the method used was the same. As a whole this specimen is well preserved, including the long fringe, but the sequence of the grouping used in the twisting of the warp yarns into a cord fringe has been lost.

The fourth bag (D) is very much like the others in general appearance and the web has been woven in the same manner as the others. It is brown, lighter in color than the preceding (C) but darker than the other browns. Its most noticeable difference is the somewhat shorter fringe (Table 1). The fabric is slightly coarser than that of any of the bags described above and shows no crêping (Table 2). The heading cord ends, at one side of this bag, have been braided into a three-strand braid

about 3 1/2 in. (8.9 cm.) long. This braid is tied to unbraided ends, of about the same length, from the opposite side of the bag. The fringe is cord-like, with four warp yarns twisted together. The yarns of this bag are now brittle, and there are many holes in the fabric.

Technically this specimen differs from the others in the method used for closing the bottom of the bag. The two layers of fabric have not been woven together by means of shared weft yarns. Instead, the bag has a very narrow flat base, eight wefts wide, woven between two sets of fringe ends, each group consisting of half of the warp yarns. This construction seems to be identical to that seen in two pouches from Pachacamac reported previously (VanStan, 1967, pp. 5-6, figs. 3, 5), except for the larger number of wefts used for this smaller bag. Although the exact method employed in adding these few wefts cannot be determined, it seems probable that, in this case, shed rods served to separate the alternate warps into two sets of fringe loops, one above and one below the weftwise centerline of the unwoven warps. If each of these sets of loops was pulled away from the center, by means of the shed rods, to its maximum extent, wefts could have been added at the midpoint between the two rods. Inserting the wefts in this manner would have closed the bottom of the bag and the fringe yarns would have been separated into two parallel rows, as they are in both this and the Pachacamac bags cited.

The fifth bag (E) also differs from the others in several respects, although the basic construction, including the closing of the bottom of the bag, is like that of the first three examples. The yarns are wool and their color seems to have been red, originally. Now the color is completely brown on the surface but is red in a few protected areas. This specimen is in very poor condition. Only small sections of the base of the bag remain, the fringe is incomplete, and parts of the mouth section have disintegrated. Enough of the mouth is intact to show that an edge finish of kneedleknitting, in small blocks of two or more colors, once was present along this edge. No other evidence of ornamentation remains. Yarns matching the weaving yarns appear to have been used for the heading cords and for sewing the original side seams of both the bag and the pockets.

Neither data concerning the exact locale from which these bags came nor the other artifacts with which they were associated have been obtainable. The huaquero who carried the bags into Ica said only that they were all found together, were from a site near Ica, in the Department of Ica, and had been recovered from a "very old grave" shortly before they were offered for sale. They are now in the private collection of Sra. Monica C. de Blume and were made available for study through the courtesy of Sr. Alberto Bueno Mendoza, Conservador del Museo de Sitio de Pachacamac.

The other example showing pockets of similar construction is made of patterned wool fabric. It is somewhat larger than the bags from Ica and has only two pockets. Both pockets are located on one face and have been placed well above the lower edge of the body of the bag (figs. 4a, b). Although the top of this bag is narrower than the bottom, 9 in. (22.8 cm.) compared with 12 in. (30.5 cm.), the narrowing has resulted

from repairing the upper parts of the side seams, where the fabric had been worn or torn away, not from shaping of the web during weaving. The bag is 9 in. (22.8 cm.) deep. It has a fold at the lower edge and there is no evidence of fringe.

The fabric is a fairly common type, seen frequently in Peruvian bags. The main part of the patterning is in stripes. Some stripes are in warp-face damask weave, some plain weave. An unpatterned section forming the lower part of the bag is woven in the "log cabin" technique. Alternate wide and narrow pattern stripes are all brown and white and are separated from each other by plain blue and red stripes. There are three of the wider stripes, each 2 in. (5.1 cm.) in width, and the pockets have been woven into two of these (fig. 4a), the central stripe having no pocket. Each pocket is the same width as the stripe. Each forms a tab on the outside of the bag and opens to the inside, as do the pockets of the other examples. The sides of each pocket are sewed with very closely set whipping stitches in red wool yarns and the indications are that each pocket had three red tassels fastened along the lower edge, although remains of only three of the six have been preserved.

These pockets have been constructed as a continuous part of the weaving and have been folded and sewed in the same manner as those of the other bags. Here the close resemblance ends. The pockets do not form a continuous sequence across the bag, since they appear on only two major parts of the warp striping (fig. 4a). This intermittent spacing made the construction more complex than that of the bags with the pockets extending across the whole width of the web. The non-continuous arrangement meant that the warps of the two pocket sections had to be longer than those of the other parts of the bag and the wefts of the pocket sections crossed only these two parts, each part quite independent of the other and of the remainder of the web. There are several ways in which these sectional variations in length could have been obtained, but the method used is not known. Presumably an extra rod or warp beam held these two longer sections of the warp, since there appear to have been warp loops at both ends of these sections as well as across the remainder of the web. If length adjustments were made following the weaving, no evidence of these is now discernible. If any length adjustments were present they would have been along the mouth of the bag, which is badly worn and partly disintegrated. However, warp loops are present at both ends of one of the stripes having a pocket, and the patterning of both of the stripes with pockets is continuous and shows no interruption in the pocket sections. The tassels, which once ornamented the bottom of each pocket, were constructed separately and were added after the weaving was completed. The warp yarns of this bag show considerable variation, with the chief differences being between yarns of different colors. Some are single-ply, S-spun and hard to crêpe twist; others are 2-ply, Z-S spun, soft twist. Diameters vary from 1/50 in. (.50 mm.) to 1/64 in. (.39 mm.). The warp count averages 60 per in. (23.6 per cm.); the weft count, 23 per in. (9.0 per cm.), except on the log-cabin weave area where it drops to 10 per in. (3.9 per cm.). The wefts are all dark brown, 2-ply, Z-S spun and soft twist. The tassels are of red wool. This bag, now in the Museo Amano in Lima (no number), was purchased from a dealer

several years ago, and nothing is known about its source.

A search for additional bags with pockets of the same type has been fruitless, although there is a possibility that two bags shown in published photographs (King, 1965, fig. 24; Taullard, 1949, fig. 178, opposite p. 56) may be examples of the use of a similar pocket-making technique, this has not been confirmed. Both of these are of patterned fabrics. Neither was shaped in the weaving and neither has fringe. It seems most probable that other examples with these woven pockets are among the many bags in Peruvian collections, and it is hoped that among these there are a few specimens for which excavation details have been recorded.

The specialized weaving devices that characterize these bags seem to have developed primarily for this particular use and, since they would serve no general textile purpose, the chances of their occurring in articles other than bags are not great. Of the special techniques seen in the six examples described above, only the shaping has been reported in textiles made for other purposes. A few garments shaped in weaving have been noted (Bennett and Bird, 1964, pp. 214-5, fig. 34) and some other shaped fabrics are known to exist. In most cases, however, the method of shaping differs from the simple spreading of the warps, where no additional warps were added and no change in the type of weft yarns was involved. Fringes are very common, but the fringe construction techniques of these bags seem not to have been adaptable to the requirements of other woven articles. The same can be said concerning the methods employed for closing the bottoms of the bags. To date there is no evidence that pocket sections ever were woven into any of the fabrics used for purposes other than bags. Although the device could have been applied successfully and usefully in the making of both poncho-shirts and some loin or breech cloths, no garments seem to have been made with pockets.

Certainly the ingenuity shown in the development and use of these specialized bag-making techniques attests to the cleverness and skill of the weavers, but whether or not these methods and devices were limited in use to particular times and places, and thus could serve as bench marks in determining the provenience of unlabelled articles, is not known. It seems probable, however, that a thorough study of bags of a few of the many distinctive types might throw some light on this subject, for it is in bags that a great many of these oddities of construction occur. While a well established and widespread use of bags is indicated, both by the great number and variety of examples seen in collections of pre-Columbian Peruvian textiles and by the frequency of their inclusion among burial furnishings (Bennett, 1946, pl. 53; Leicht, 1960, pl. 28), their distribution by type seems never to have been considered in recent studies on any basis other than a superficial matching of decorative designs. This selection has eliminated from most reports all of the undecorated items, which constituted the utilitarian group, and were probably the most plentiful of all ancient Peruvian textiles.

An isolated occurrence of one or more of these specialized techniques, even one including a fairly large number of similar items, might be attributed to a single weaver or a group of weavers working

together, rather than being a characteristic product of a particular time and place. In either case, if any spread of these oddities occurred, it would show quite clearly the paths and directions traveled and possibly the rate at which this spread took place. Obviously, much greater value could be gained from this information if data on the exact locales where such artifacts were found and the other artifacts with which they were associated were recorded. In the past, and currently to some extent, the tendency has been, even on the part of some trained archaeologists, to disregard textiles, especially if they are without patterning, and frequently textile information has not been recorded or reported with the same care used for other artifacts. Since by far the greater number of textiles making up museum and private collections are without recorded provenience, methods for placing these in some proper perspective are badly needed.

BIBLIOGRAPHY

- Bennett, Wendell Clark
1946 The archaeology of the Central Andes. Handbook of South American Indians, edited by Julian H. Steward, Bureau of American Ethnology, Bulletin 143, vol. 2, pp. 61-147. Washington.
- Bennett, Wendell Clark and Bird, Junius Bouton
1964 Andean culture history. Second and revised edition. American Museum Science Books, published for the American Museum of Natural History. The Natural History Press, Garden City.
- Bird, Junius Bouton
1964 Shaped tapestry bags from the Nazca-Ica area of Peru. Textile Museum Journal, vol. 1, no. 3, pp. 2-7. Washington.
- King, Mary Elizabeth
1965 Ancient Peruvian textiles from the collection of the Textile Museum, Washington, D.C. Introduction and notes by Mary Elizabeth King. The Museum of Primitive Art, New York. Distributed by the New York Graphic Society, Greenwich.
- Leicht, Hermann
1960 Pre-Inca art and culture. Translated from the German by Mervyn Savill. The Orion Press, New York.
- Taullard, Adolfo
1949 Tejidos y ponchos indígenas de Sudamérica. Guillermo Kraft Limitada, Buenos Aires.
- VanStan, Ina
1967 Textiles from beneath the Temple of Pachacamac, Peru: a part of the Uhle collection of the University Museum, University of Pennsylvania. Museum Monographs. University Museum, Philadelphia.

TABLE 1
Bag Dimensions

Ica specimen	Warp length	Bag depth	Pocket depth	Bag top to pocket top	Fringe length	Mouth diameter	Base breadth	Pocket breadth
A	65 in.	9 in.	2 3/8 in.	6 1/2 in.	18 1/4 in.	5 1/2 in.	8 in.	2 3/4 in.
	165.1 cm.	22.8 cm.	6.0 cm.	16.6 cm.	46.3 cm.	14.0 cm.	20.3 cm.	7.0 cm.
B	61 in.	7 3/4 in.	2 1/4 in.	5 5/8 in.	18 in.	4 5/8 in.	6 7/8 in.	2 1/2 in.
	154.9 cm.	19.7 cm.	5.8 cm.	14.2 cm.	45.8 cm.	11.8 cm.	17.5 cm.	6.3 cm.
C	62 in.	7 in.	2 1/8 in.	4 3/4 in.	24 1/4 in.	4 3/8 in.	5 3/4 in.	1 3/4 in.
	157.5 cm.	17.8 cm.	5.3 cm.	12.1 cm.	61.6 cm.	11.1 cm.	14.6 cm.	4.4 cm.
D	49 in.	8 in.	2 1/8 in.	5 1/4 in.	12 in.	5 in.	6 1/2 in.	2 1/4 in.
	124.4 cm.	20.3 cm.	5.3 cm.	13.3 cm.	30.5 cm.	12.7 cm.	16.5 cm.	5.8 cm.
E	34 in. +	8 1/4 in.	1 3/4 in.	5 in.	5 in. +	4 3/4 in.	6 1/2 in. (?)	2 in.
	86.4 cm. +	21.0 cm.	4.5 cm.	12.7 cm.	12.7 cm. +	12.0 cm.	16.5 cm. (?)	5.1 cm.

TABLE 2a
Yarn Detail
Warp

Ica specimen	Count		Ply	Spinning direction	Degree of twist	Diameter
	Top	Base				
A	56 per in. 22.0 per cm.	40 per in. 15.7 per cm.	2	Z-S	Medium	1/48 in. .53 mm.
B	42 per in. 16.5 per cm.	28 per in. 11.0 per cm.	2	Z-S	Soft to medium	1/40 in. .63 mm.
C	32 per in. 12.6 per cm.	28 per in. 11.0 per cm.	2	Z-S	Very hard to crêpe	1/50 in. .50 mm.
D	42 per in. 16.5 per cm.	30 per in. 11.8 per cm.	2	Z-S	Medium	1/48 in. .53 mm.
E	40 per in. 15.7 per cm.	31 per in. 12.2 per cm.	2	Z-S	Medium	1/50 in. .50 mm.

TABLE 2b
Yarn Detail
Weft

Ica specimen	Count		Ply	Spinning direction	Degree of twist	Diameter
	Top	Base				
A	23 per in. 9.0 per cm.	25 per in. 9.8 per cm.	2	Z-S	Soft	1/48 in. .53 mm.
B	28 per in. 11.0 per cm.	23 per in. 9.0 per cm.	2	Z-S	Soft	1/40 in. .63 mm.
C	28 per in. 11.0 per cm.	30 per in. 11.8 per cm.	2	Z-S	Soft	1/50 in. .50 mm.
D	20 per in. 8.0 per cm.	22 per in. 8.7 per cm.	2	Z-S	Medium	1/48 in. .53 mm.
E	24 per in. 9.4 per cm.	29 per in. 11.4 per cm.	2	Z-S	Medium	1/50 in. .50 mm.

KEY TO ILLUSTRATIONS

Plate XIX

Fig. 1. The largest (A) and best preserved of five small shaped bags from Ica. Each of the five bags has three pockets on the front and three on the back. Access to these pockets is from the inside of the bag. On the outside they hang as loose tabs.

Fig. 2. Diagrams of the method of construction used in the five bags from Ica, with their rows of pockets. The proportions are those of bag A.

a. The web layout, showing the woven sections with the kelim slots for the pockets, and the unwoven warps left for the fringe (length of fringe shown is about one-fourth of total length).

b. The outside of the bag, after folding, with the pocket and bag side seams sewed. The two ends, with their heading cords, are at the top of the bag. Dotted lines indicate the pocket openings, which are on the inside of the bag.

c. The inside of the bag, with the pocket openings, where one layer of the cloth is folded back in line with the tips of the kelim slots. Dotted lines indicate the sides of the pockets, which hang on the outside of the bag.

Plate XX

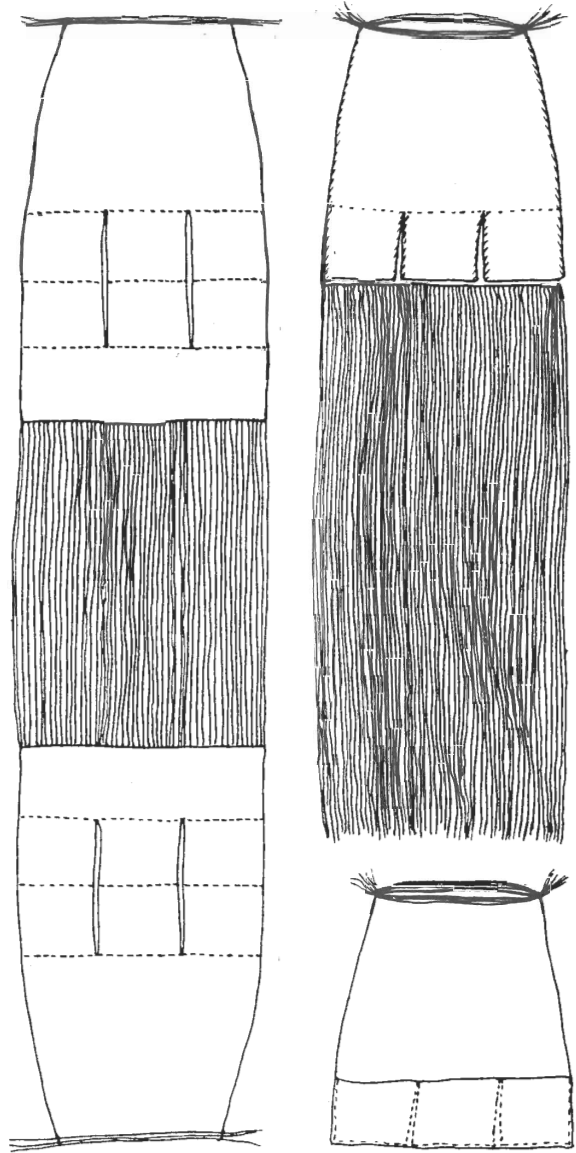
Fig. 3. Three of the pockets of the largest bag. Two have been turned up to show the under folds, which are at the tops of the pockets on the inside of the bag.

Plate XXI

Fig. 4. Photographs of the front and back of the patterned bag. The apparent shaping is the result of wear and repair of the side seams.

a. The front of the bag with its two pockets. The patterning of the two stripes with pockets is continuous, with no break or adjustment of the design in the pocket sections.

b. The back of the bag, which lacks pockets.



2a

2b

Plate XIX. The largest bag of the ones from Ica, with construction details. See Key to Illustrations.

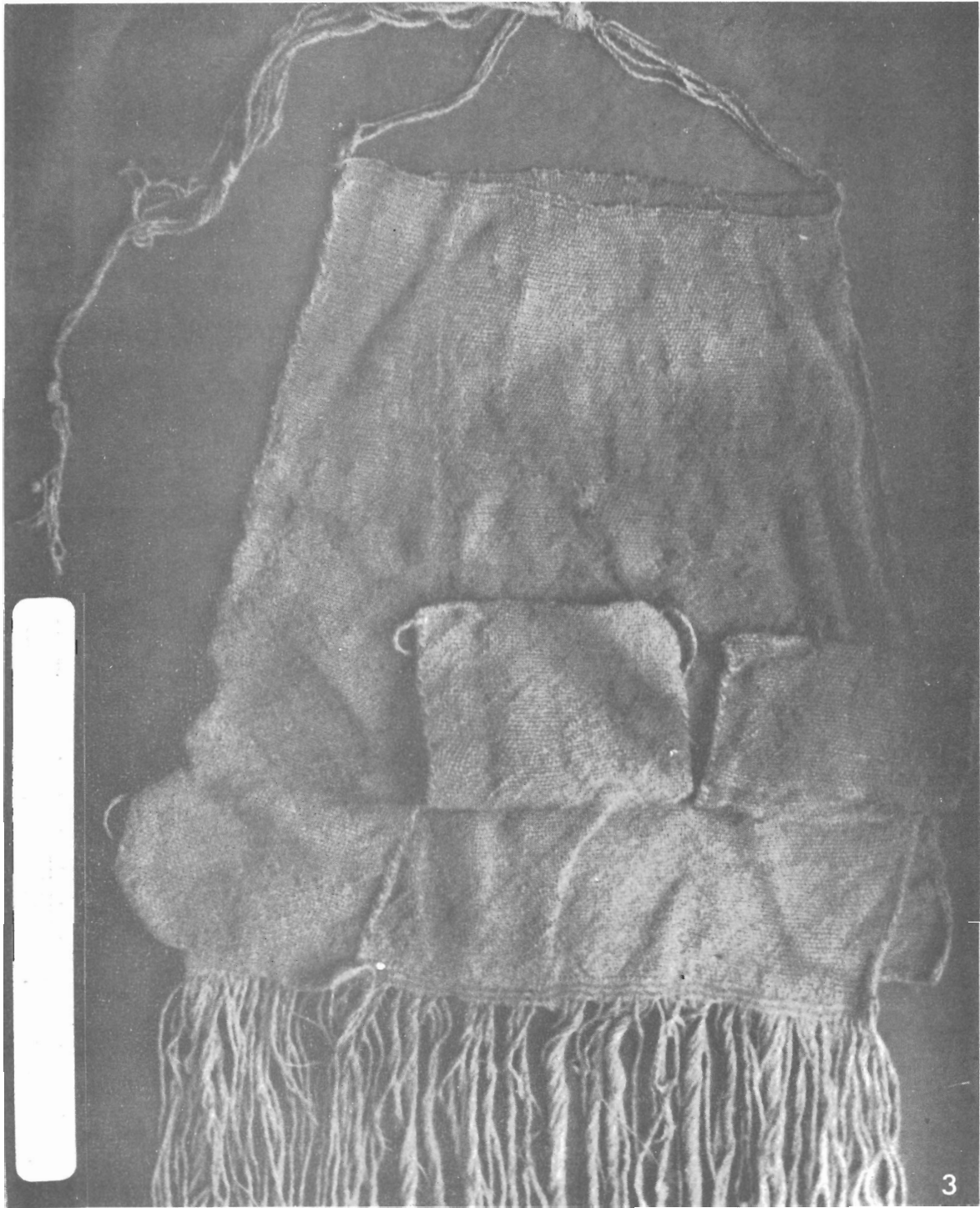


Plate XX. Three of the pockets of the largest bag from Ica. See Key to Illustrations.



4a



4b

Plate XXI. The patterned bag. See Key to illustrations.