A SERIES OF ANCIENT ANDEAN TEXTILES

By PHILIP AINSWORTH MEANS

The Age of Ancient Andean Civilization

IN THE last thirty or forty years we have been taught that none of the ancient civilisations of America is of great antiquity in comparison with those of the Orient or with the Neolithic and Bronze Age cultures of Europe. Yet the early American civilisations are exceedingly interesting for the reason that several of them developed notable proficiency in various forms of human activity.

The peoples who anciently dwelt in the territory now occupied by Ecuador, Peru, Bolivia, Northern Argentina, and Northern Chile, were adepts in various arts, among them stone-cutting, masonry, pottery, metal-work in copper, bronze, gold and silver, mosaics, wood-carving, and, last but not least, weaving. It is my purpose here to show some of the characteristics of ancient Andean textile art. One may say without exaggeration that it stands unsurpassed as a representative of the craft of the loom and of the needle.

Sad experience during some fifteen years of work has shown me that too often the public, whose fickle, coy attention must be carefully wooed, persists in hoping that early American archaeological objects are very, very old and, still worse, that they are born of alien influences emanating from Egypt, Wales, China, Iceland, Africa, Cambodia, Atlantis, Etruria, etc. When one earnestly assures the budding enthusiast that the early American cultures were relatively young and that they were entirely an

American product, too often does he see the bright inquiring smile which has illumined his listener's countenance fade away like the grin of the Cheshire Cat, giving place to the automatic and muscular smirk of the friend who *will* be polite no matter how bored.

In the territory designated Andean and already defined, the earliest representatives of the fine arts do not greatly antedate the Christian era. From that time onward until the Spanish conquest under Pizarro in 1530, the aboriginal peoples of the Andean region passed through various cultural phases during which they produced noteworthy buildings, ceramics, textiles and other works of art. Concerning the general trend of history in the Andean region before the Spaniards came we know that on the coast in the first five or six centuries of our era there was a series of well organised states; that in the highlands a rudimentary archaic culture containing the germs of many arts gave rise, about 500 A. D., to a great inland empire having its centre at Tiahuanaco, near the southern end of Lake Titicaca; that this empire subsequently made its influence felt all along the coast as well as throughout the mountains; that about 900 it fell to pieces for reasons which are still unknown, leaving on the coast a series of states which were in reality revivals of the earlier ones, and leaving in the highlands a neo-archaic culture in which chaos and retrogression prevailed; that finally, about 1100, the Inca tribe began its spectacular career and, in a few generations, made itself into a great imperial dynasty ruling the whole of the vast territory in question.

Surely, in this series of cultural phases, the average person's craving for antiquity will find enough to feed upon, opening the mind to the objective interest of early Andean weaving.

The Tools used in Ancient Andean Textile Art

Extreme simplicity was the chief characteristic of the tools used by the early Andean weavers. We often speak to-day of "hand looms," but we might with almost equal justness call them "foot looms," for the feet are as important in their control as are the hands. The early Andean looms, however, were in truth hand looms. The warps were stretched over two bars placed at a convenient distance apart and held parallel while the warps were attached. After that process was completed, the upper bar

was fastened to a beam, a wall peg, the limb of a tree or some other suitable mooring, and the lower bar was held taut either by weights or by being attached to the weaver's torso or by being tied to stakes in the ground. In many looms the warps were attached to a cord dependent from the loom bar, not to the loom bar itself; but the principle was the same. Heddles took the form of simple sticks lying across the warps with loops hanging from them to the proper warp threads; by pulling up the heddle a shed was formed through which the weft was passed on a shuttle or on a bobbin. Very often there was no heddle, its place being taken either by the weaver's deft fingers or else by a weave dagger which was used to make short sheds at the desired place in the fabric. Beating up was effected either by the fingers or by means of certain fine combs which frequently occur in ancient Andean work baskets.

No looms of greater intricacy than this were known![1] Besides the loom itself, the ancient Andean weaver had the needle, *with the hole near the point,* and the crochet hook. Spindles were of various sorts, all simple, and the loaded spindle usually served as a shuttle or bobbin.

The Materials used for Textiles

Of the four chief textile fibres employed by man, i. e., wool, cotton, linen, and silk, only the two first mentioned were known to the early Andeans. True, we sometimes encounter references to strange materials said to have been used for making fabrics of special luxury, such substances as rabbit hair, the down that grows on bats' wings, and so on. But our knowledge would best remain wholly empirical, based altogether on the visible specimens which have come down to us, and as these do not at present include airy tissues such as those hinted at, we may assume that they were exceedingly rare, if not wholly fabulous. But cloth in which the gay plumage of birds, the lustrous black hair of human beings, the glint of gold, silver, mother-of-pearl, and other non-fibrous materials were employed to enrich the more prosaic cotton and wool do occur plentifully in our collections.

[1]The best descriptions of ancient Peruvian looms are those given by Max Schmidt: "Szenenhafte Darstellungen auf alt-peruanischen Geweben" (in Zeitschrift für Ethnologie, vol. xlii, pp. 154-164, Berlin, 1910.); and "Über altperuanische Gewebe mit szenenhaften Darstellungen" (in Baessler-Archiv, vol. i, pp. 1-61. Leipzig and Berlin, 1910.)

Even without the aid of such uncommon materials, however, Andean cotton and wool were not commonplace. The cotton used in ancient times was of the kind known to science as *Gossypium peruvianum, Cavanilles*, and to trade in our day as Peruvian Full Rough. It has a staple which, in ancient specimens, ranges from an inch to an inch and three-fourths. The roughness which to-day makes it so valuable an ingredient for certain brands of *all wool* clothing arises from innumerable tiny hooks which stand out along the fibres. The tree upon which it grows is some fifteen feet in height, and it bears well for eight years or more. The colour of the cotton is white for the most part, but brown, tawny, and even blue cotton is frequently found in the work baskets contained in ancient burials along the coast. These variations in colouring are not wholly understood as yet. Some have thought that they represent distinct kinds of cotton, but this is almost certainly not the truth. It is more likely that they are the result of the action of certain pests whose presence in the maturing boll has altered the natural colour of the fibre with consequences which the ancient weavers did not fail to utilise in their fabrics.

The wool all proceeded from four animals of the camel family which were indigenous to the Andean region. They were the llama, the alpaca, the guanaco, and the vicuña. Llama wool was coarse and strong; alpaca and guanaco wool were chiefly valued for their range of natural colours, including white, black, and various shades of brown and tawny. Vicuña wool was highly prized for its exceeding fineness and glossiness.

Even though they lacked linen and silk, then, the early Andeans had excellent textile raw materials. They made the most of them, as we shall see.

Dyes

Although, as I have hinted, the Andean weavers made the fullest possible use of the natural colours of their cotton and their wool, they were masters of the art of dyeing. Most of their colours were of a vegetable nature, but they fully understood that, to give their patterns depth and fixity, a mordant was required. For this purpose such mineral

substances as silicate of chalk, aluminium, and oxide of iron, were used.[2] Cochineal gave some shades of red, and some shades of blue were derived from indigo. We have no way of learning to what extent dyes extracted from sea-creatures were used, or whether they were used at all.

The Decorative Art of the Ancient Andeans

Before turning to the specimens which we shall examine, a little must be said concerning the trend of decorative art among the early Andean peoples. Their chief artistic mediums were pottery and textiles, with stone, wood, and the metals in a distinctly secondary place. Though they had a noteworthy architecture in which both sculpture and painting played an occasional part, they never approached their distant kinsmen the Mayas of Yucatan in the richness and variety of the embellishments which they applied to their buildings. Their artistic expression reached its greatest eloquence in ceramics, in fabrics, and in the innumerable elegant trifles which they made from many choice materials.

The early coastal states, that is, those which flourished before about 500 A. D., were decidedly civilised communities. It is quite natural therefore that they should have had a complex aesthetic tradition made up of aesthetic concepts which were drawn upon for the purpose of enduing life with grace and charm. In the northern half of the coast at that time, that is, from the Gulf of Guayaquil down to the Rimac Valley, where Lima now stands, art was at first purely representational in spirit and purpose. Realistic scenes painted and modelled upon pottery vessels, life-like portraits of individuals with commanding countenances, exquisite effigies of animals, plants, houses, are all characteristic of the art of the northern coastal states at that early time. The art of the more southerly states at the same period was, on the whole, very different. It was essentially symbolical and ceremonial, possibly as a result of an increase in the power of priestcraft. True, realistic paintings and even magnificent specimens of portrait vases do sometimes occur in the burials representing the early period in the southern part of the coast, but they are not truly typical of the spirit which informed the art of that time

[2]Dyes have been but very little studied so far as early Andean stuffs are concerned. Consult, however, M. Valette, "Note sur la teinture des tissus précolombiens du Bas-Pérou." (In Journal of the Société des Américanistes de Paris, vol. x, pp. 43-45, Paris, 1913.)

and region. Nor, for that matter, are the conventionalised designs which, as time advanced, were increasingly frequent in the northern coastal art valid interpretations of the artistic spirit of the people there. In the growth of conventionalism we see in ancient Andean art, as in countless other arts, a diminution of the first youthful vigour of the collective imagination. In most cases that diminution is traceable to a too great preponderance of religious terrors and to a resultant impulse towards propitiation at the behest of priests who came to control art in accordance with their formulas and dogmas.

It is entirely likely that such influences as these were powerful in early Andean history. The counterplay between the forces of natural impulse towards realism and artificial servitude to set forms is clearly discernible. In spite of local variations arising out of the fitful intensity of that counterplay it is evident that the two halves of the coast were the seat of a civilisation essentially uniform throughout. The artistic preoccupation of designers in both regions involved man and the visible workaday world about him, but the north tended to interpret what it saw straightforwardly and realistically, whereas the south tended to do so esoterically and ceremonially.

With the rise of Tiahuanaco art the realistic tendency was almost extinguished; only faint reminiscences of it appear in the art of the Tiahuanaco period. Later, however, or between about 900 and the Incas' conquest of the coast in the 13th to 15th centuries, there is a marked recrudescence of the realistic spirit in the northern coastal art, albeit at the same period art in the southern valleys remains almost entirely conventional.

Incaic art was essentially eclectic, availing itself of decorative elements derived from all the earlier aesthetic traditions with which it came in contact. In pottery its sole original contribution was a new form of jar, the so-called Incaic aryballus; and in textile art it tended to break up decoration into small panels and patches carrying richness of colouration and variety of form to their uttermost limits.

A Series of Early Andean Textiles briefly Described

Owing to the extreme simplicity of their implements and to the restricted variety of their textile raw materials, those early Andean weav-

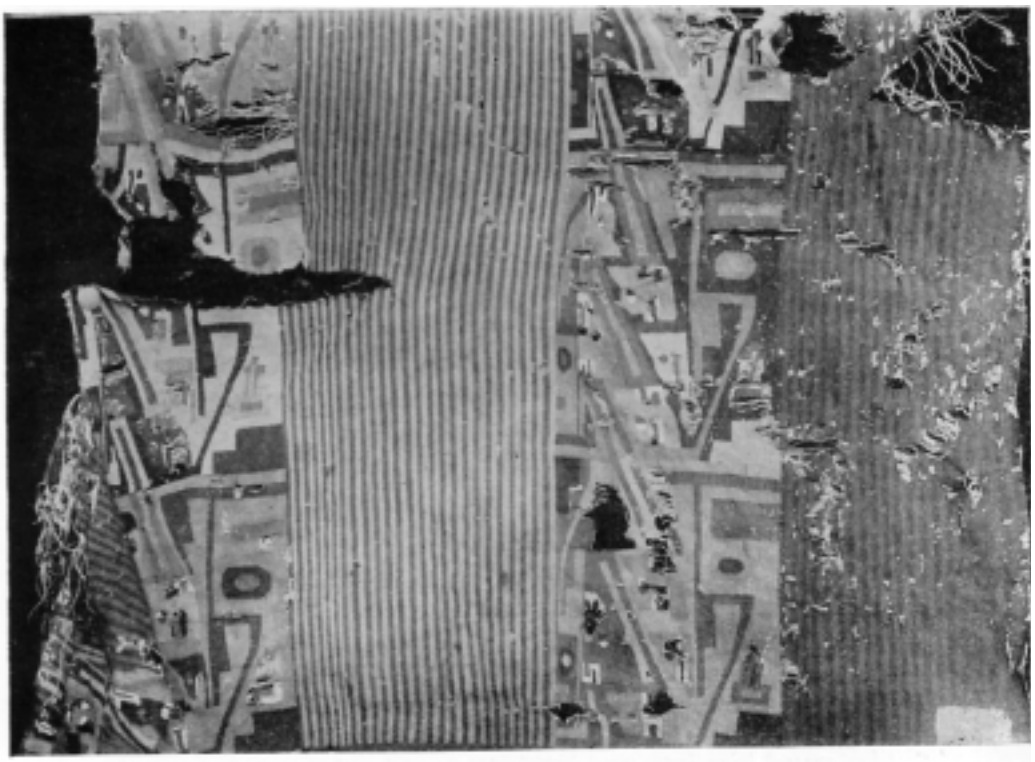
ers who aspired to create rich effects were obliged to be very dexterous with their fingers. From an early date the best among them were, indeed, astonishingly skilful, and as a result of their devoted application we have an extraordinary range of fabrics made long ago in nearly all parts of the Andean region.

On the whole, tapestry may be said to have been the favourite fabric of the ancient Andeans of all periods. The term tapestry is used here to designate cloth in which the weft is so closely beaten up as to conceal the warp and in which the weft is not necessarily carried entirely across the fabric, but is carried only for short distances according to the requirements of the colour-areas in the pattern. The Andean weavers were notably proficient makers of tapestry. Some of their works are very fine. Mr. M. D. C. Crawford reports on a fragment of tapestry in the American Museum of Natural History which, he tells us, contains 42 cotton warps to the inch and 260–280 vicuña weft threads to the inch.[3] More than once I have found even higher counts than this, notably in a fragment of vicuña wool tapestry which is in the present series.

Specimen Number One.—A tapestry of exceeding fineness of which two fragments are known, one in the National Museum of Archaeology in Lima, the other in the Gothenburg Museum, Gothenburg, Sweden. The specimen as shown here measures 47 inches in width. The design is in the Tiahuanaco style and is highly conventionalised, so much so that objectively considered the pattern lacks coherence and meaning. The colours are golden yellow, greenish yellow, yellowish brown, deep crimson, light crimson, black, and white. The taste of the Andean artist of old rarely betrayed him into making ugly combinations of tint, albeit as coldly listed here the shades in this specimen sound garish, if not hideous. The effect, however, of the cloth itself is one of light-toned richness, audacious but tasteful.

It is probable that the warp is of cotton, but of this I am not sure. There are from 51 to 54 warp threads to the inch and between 190 and 240 weft threads. The weaving, despite the fluctuation in the weft count, is of remarkable firmness and evenness. Altogether, this specimen is one of the finest pieces of woollen cloth in the world.

[3]Morris De Camp Crawford, "Peruvian Textiles." (In Anthropological Papers of the American Museum of Natural History, New York, 1915, p. 93.)



SPECIMEN NUMBER ONE.

VICUNA TAPESTRY OF THE TIAHUANACO PERIOD. ORIGINAL IN THE NATIONAL MUSEUM OF ARCHAEOLOGY, LIMA, PERU.

SPECIMEN NUMBER TWO.

TAPESTRY FRAGMENT OF WOOL AND COTTON. PRE-INCAIC PERIOD OF THE COAST. ORIGINAL IN THE AUTHOR'S COLLECTION.

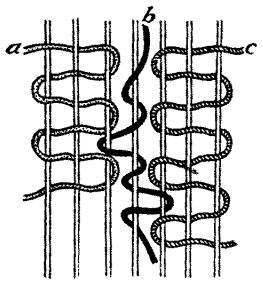
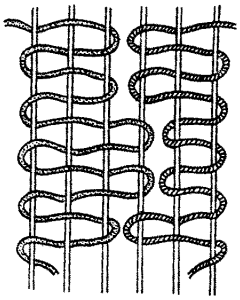


Figure 1.



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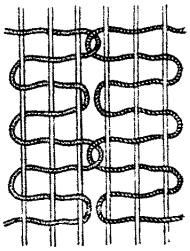

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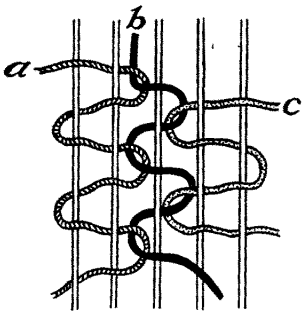

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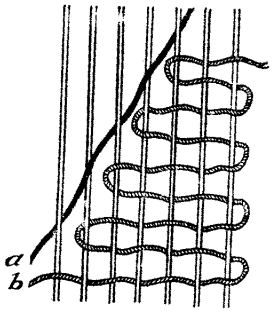

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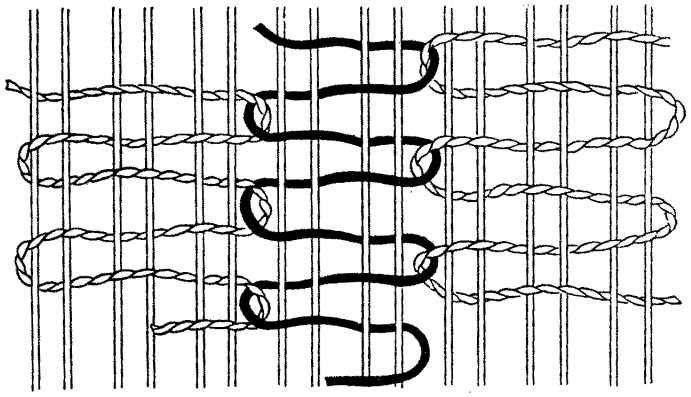


Figure 6.

A peculiarity of early Andean tapestry is lacking in this specimen. I refer to the kelim or returned weft technique, which is nearly universal in ancient Peruvian tapestries. This technique has to do with the manner in which adjacent colour-areas of the design are woven with respect to one another. In most European tapestries juxtaposed wefts of different shades are linked into each other by one of the methods shown in Figures 1, 2, 3, 4, 5, and 6, all of which are diagrams made by Mr. Crawford. He has found all of these methods of causing adjacent colour areas to interlock in Peruvian tapestries; yet it remains true that all forms of such interlocking are relatively rare in early Andean tapestries.

The inevitable outcome of any form of interlocking weft is that the outline of the colour-areas is more or less blurred and softened by mixture, at the edges, with some contrasting shade. As a rule, this softening was displeasing to the Andean designer who, no doubt, worked in pottery as well as in cloth. He therefore sought a way in which colour-areas could be as sharply defined in textiles as they were in vase-paintings. The kelim or returned weft technique satisfied the need. How it actually worked out is shown in:

Specimen Number Two, a tapestry fragment measuring $4\frac{1}{2}$ by $6\frac{1}{4}$ inches. The design, worked in white cotton and three tints of brown wool, is of highly conventionalised bird-heads, supplemented by geometric motifs of several sorts. The weave is not especially fine, being only 20 cotton warps to the inch and 72 wefts.

The notable thing about the specimen, however, is the masterly use of the kelim or returned weft technique. In this technique the weft of a given colour is turned back upon itself when it reaches the last warp of the area assigned to it in the design. That is, it goes no further than the selected warp on either side of its territory, and the loose end of the weft is poked under the woven portion of that colour and is fixed there by close beating up. The result of this process is the formation of a slit or *jour* or *daylight* which sharply separates vertically the adjacent colour-areas. Care in beating up assures the same degree of sharpness horizontally between the colour-areas. In this specimen the *jours* or *daylights* themselves form a delightful pattern which adds not inconsiderably to the charm of the fabric.

It should be noted in passing that the chain of small diamonds near

the lower margin is sewn upon the finished fabric, but all the rest of the pattern is woven.

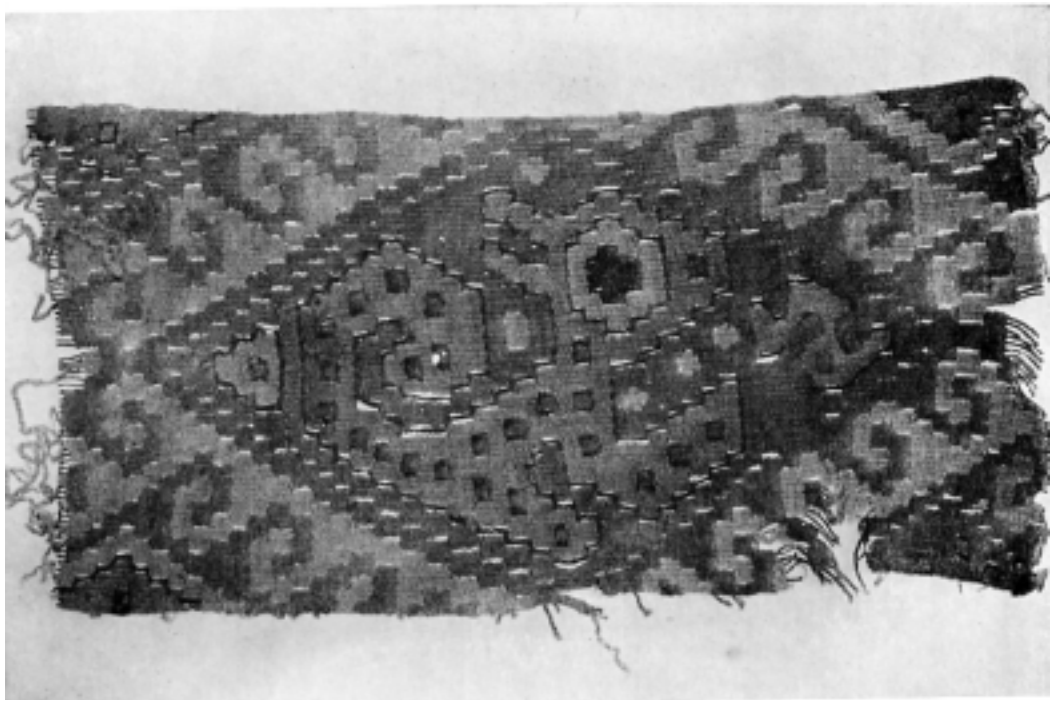
Probably this specimen dates from the period just prior to the Incas' conquest of the coast in the 13th to 15th centuries.

Specimen Number Three is another tapestry fragment displaying a skilful use of the returned weft technique. It measures 8 inches by 4. The warp is of fine brown cotton. The weft contains both white cotton and wool in two shades of golden yellow, in salmon-pink, and in black. The weave count is not high, being 20 warp by 48–54 weft threads to the inch, for the most part; but in the upper left-hand corner will be seen small areas where the weft lies at the rate of 80 to the inch, albeit it is nowhere over an area so much as an inch wide. It is noteworthy that, in spite of the variations in the weft count, the fabric has a highly finished appearance.

The outstanding characteristic of this specimen is the special variety of the returned weft technique. Some of the colour-areas are separated vertically (with reference to the position of the cloth in the loom) by ordinary *jours*; but the running rabbit on the central panel is limned with a special kind of daylights in which a single warp thread covered with closely beaten black weft is interposed between pairs of slits which separate neighbouring areas of colour. The result of this arrangement is a special degree of sharpness in the separation of the colour-areas concerned. Were this not so, the design would be far less effective, particularly at the head of the rabbit, where two not very different shades of golden yellow are given their full chromatic value by the presence between them of the black line.

The age of this specimen is open to question; but the extremely realistic attitude of the rabbit as he chases the little bird convinces me that this specimen represents the early art of the northern part of the coast, that is to say, prior to 500 A. D.

Specimen Number Four is another tapestry fragment in which the returned weft technique is prominent. The length of the piece is eight inches. The warp is of white cotton and the weft is all of wool. There are 30–32 warp threads and about 82 weft threads to the inch. The colours are old rose, pinkish lavender, two shades of golden yellow, light brown, dark brown, black, and white.



SPECIMEN NUMBER THREE.

TAPESTRY FRAGMENT OF WOOL AND COTTON. PROBABLY REPRESENTS EARLY CIVILISATION OF THE NORTHERN PART OF THE PERUVIAN COAST IN THE FIRST FIVE CENTURIES OF OUR ERA. ORIGINAL IN THE AUTHOR'S COLLECTION.

A feature of this specimen is the exaggerated use of the kelim technique. Its occurrence in the small human figures is felicitous enough; but at the left of the picture we see that the old rose panel which bears those figures is separated from the light golden yellow area to the left by a slit an inch and five-eighths in length; and this area is separated from the darker golden yellow stripe to the left of it by a slit two and three-eighths long; and, finally, this stripe is separated from the light golden yellow stripe to the left of it by a slit three and three-fourths inches long. The length of these three *jours* is so great as to weaken seriously the strength of the fabric. Evidently this has been felt in the past, for the two longest slits have been sewn up at some unknown time.

The first three specimens of this series are all equally sightly on both sides. This Specimen Number Four has been left rough on the reverse.

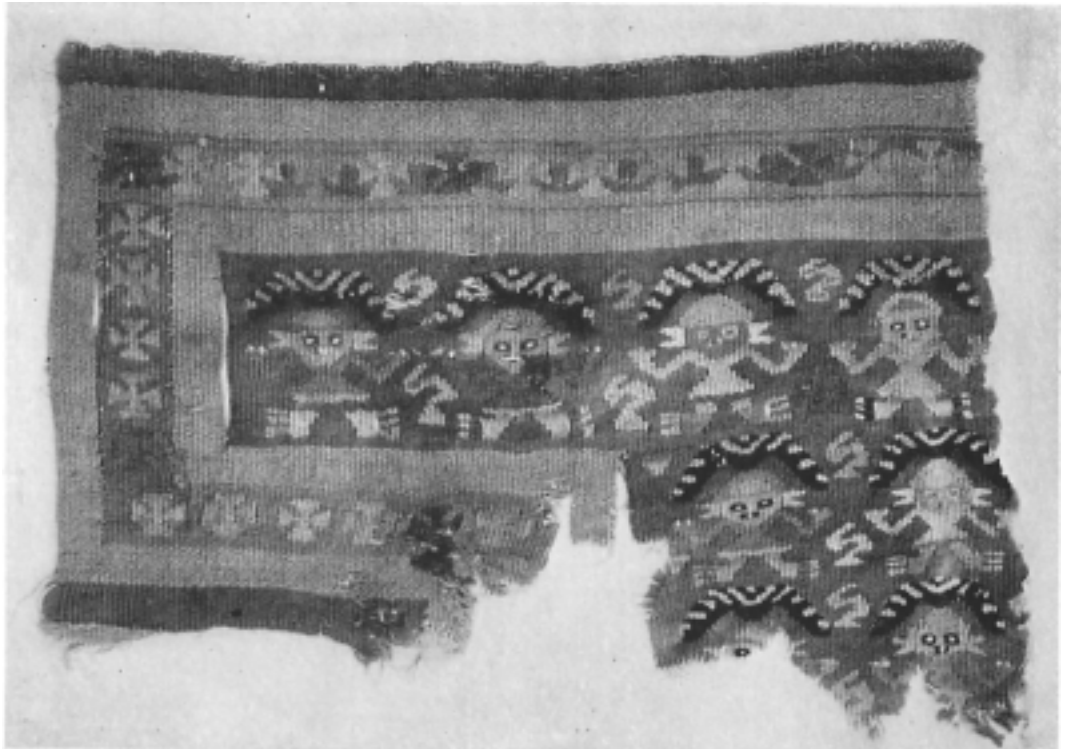
The human figures on this specimen closely resemble those which appear on the late pre-Incaic black ware of the northern half of the coast, and for that reason I ascribe this specimen to that period.

Specimen Number Five is the richly coloured tapestry border of a cotton undergarment. The tapestry measures 17 inches from left to right and $6\frac{1}{2}$ inches wide; the fringe, with its selvage, is 6 inches deep. The warp is probably of cotton; the weft is of wool except in the white areas, where cotton is used. There are 28 warp and 56–62 weft threads to the inch.

The colours are very rich and varied; they include scarlet, crimson, pink, light green, olive-green, golden yellow, black, and white. The fringe is of scarlet. The use of the double *jour* with a single warp wrapped in black weft between the two parts appears again here. The design is of highly conventionalised bird and animal figures. Probably this piece dates from the late pre-Incaic period of the coast.

Specimen Number Six is a piece of tapestry of unusual intricacy. The portion here shown is about $8\frac{1}{2}$ inches long and $4\frac{1}{8}$ inches wide. The colours are two shades of purplish crimson, brown, brownish pink, dark yellow, greenish blue, and white (this last in the warp). The weave count of the central stripe is 19–20 warp threads to the inch and 62–66 weft.

It is the peculiarity of the weave of this specimen which especially



SPECIMEN NUMBER FOUR.

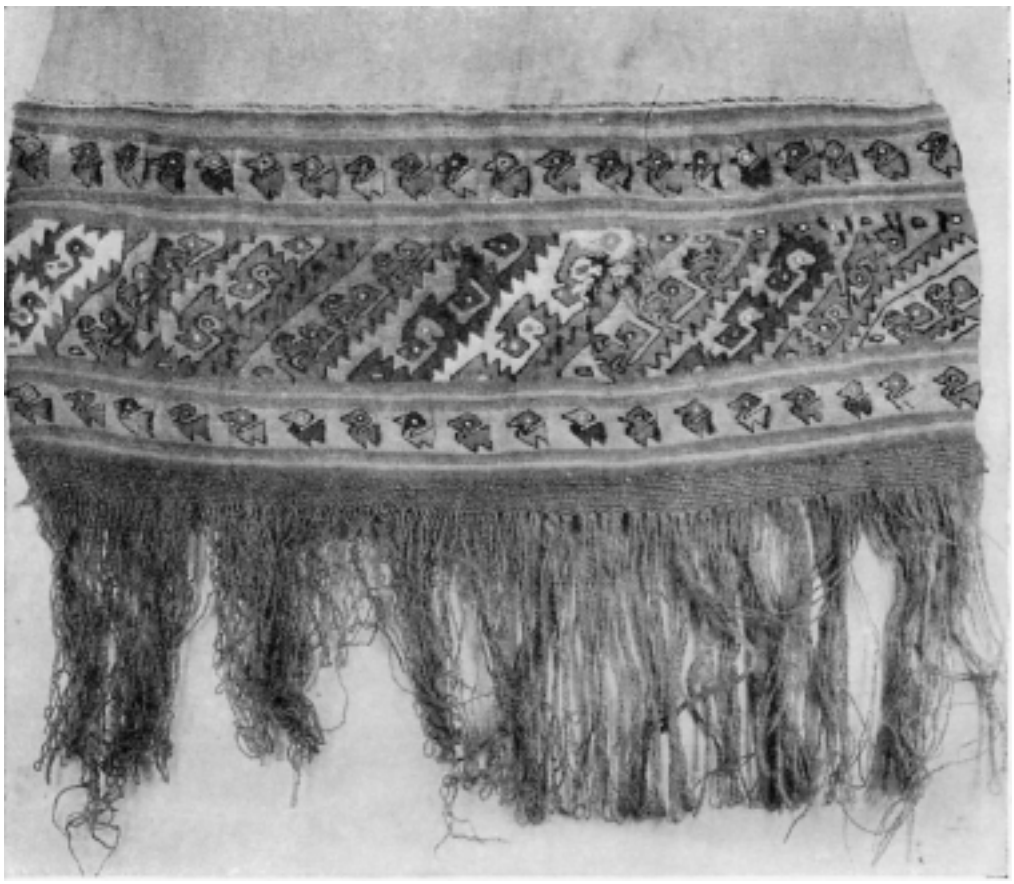
TAPESTRY FRAGMENT IN WOOL AND COTTON. PROBABLY REPRESENTS LATE PRE-INCAIC PERIOD OF THE NORTHERN PART OF THE COAST. ORIGINAL IN THE AUTHOR'S COLLECTION.

commands attention. The warp is of cotton threads by no means uniform in diameter. They are bound to one another by fine brown woollen threads which form a sort of fundamental weft which has not been beaten up. Overlying these threads is the true weft which carries the design and which is closely beaten up as in other tapestry work. It quite conceals the fundamental weft save where it has worn away, exposing to view the warp threads and those of the fundamental weft. In addition to this curious technique we find one still more interesting: two plain stripes run the length of the fabric, one on either side of the broad central stripe. These stripes lack the cotton warp threads, but they do have woollen warp threads which are in reality the same threads as those constituting the fundamental weft of the central stripe. In other words, these woollen threads serve as fundamental weft in the central stripe and as warp in the lateral stripes. The weft in these last lies at right angles to the weft of the central stripe. The narrower stripes beyond the plain stripes have the same technique as the central stripe, and the outermost stripes of all again lack the cotton warp. The fine brown woollen threads, now weft, now warp, are the only ones which extend across the entire width of the fabric. Altogether, this specimen is a remarkable example of the dexterity to which the early Andean weavers were sometimes obliged to attain because the simplicity of their tools led their fingers to acquire astonishing skill and resource for the sake of getting the desired effects.

The specimens described will give a fair idea of the character of early Andean tapestries. Hardly less remarkable and beautiful were the other kinds of cloth made by these same people. They particularly excelled in the production of brocades and embroideries. It is not always possible to draw an absolute line between these two classes of fabrics, but *Specimen Number Seven* is an example of the finest kind of brocade. The basis fabric is of cotton in the ordinary linen or basket weave. The brocaded design is in rich golden yellow vicuña wool. The rectangles of brocade measure 6 by $6\frac{3}{4}$ inches.

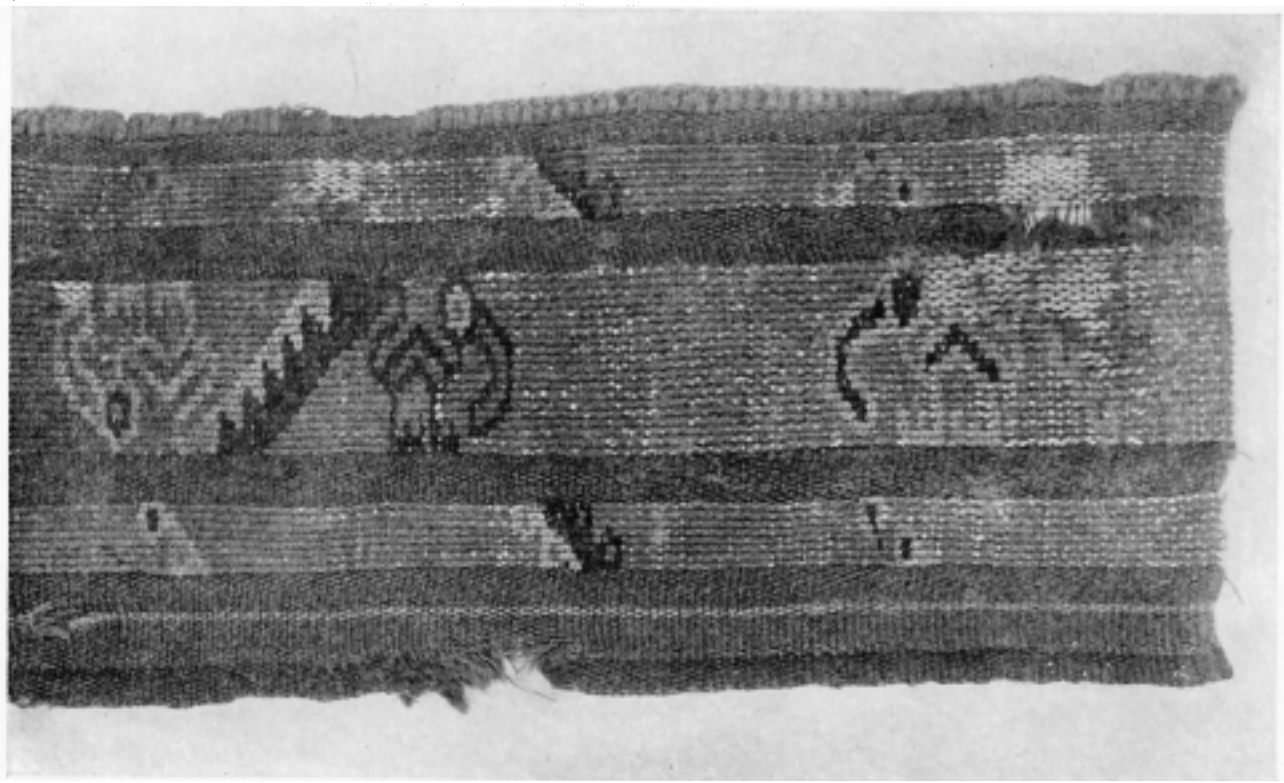
We are indebted to Mr. Crawford for the best modern description of early Peruvian brocades.[4] A diagram made by him and shown here as Figure 7 makes clear the method by which brocades were executed. The

[4]Morris De Camp Crawford, "Peruvian Fabrics." (In Anthropological Papers of the American Museum of Natural History, New York, 1916. Vol. xii, part iv, pp. 124-134.)



SPECIMEN NUMBER FIVE.

TAPESTRY BORDER OF AN UNDERGARMENT. MATERIALS WOOL AND COTTON. PROBABLY REPRESENTS LATE PRE-INCAIC PERIOD OF NORTHERN PART OF THE COAST. ORIGINAL IN THE AUTHOR'S COLLECTION.



SPECIMEN NUMBER SIX

FRAGMENT OF TAPESTRY IN COTTON AND WOOL DISPLAYING UNUSUAL TECHNICAL INTEREST. PRE-INCAIC PERIOD OF THE COAST. ORIGINAL IN THE AUTHOR'S COLLECTION.

pattern was produced by the systematic and orderly shedding of warps in such a way that the basis fabric made its appearance at determined intervals among the threads of the decorative or brocade weft.

This is the method which has been followed in the present specimen. The woollen decorative weft threads pass under the cotton warp in accordance with a preconcerted plan with the result that the carefully regulated appearances of the cotton fabric upon the surface of the cloth constitutes the pattern desired by the weaver. Nor is the reverse of the cloth less interesting than the obverse. In the latter, the cotton basis fabric is in the minority upon the surface; in the reverse it predominates

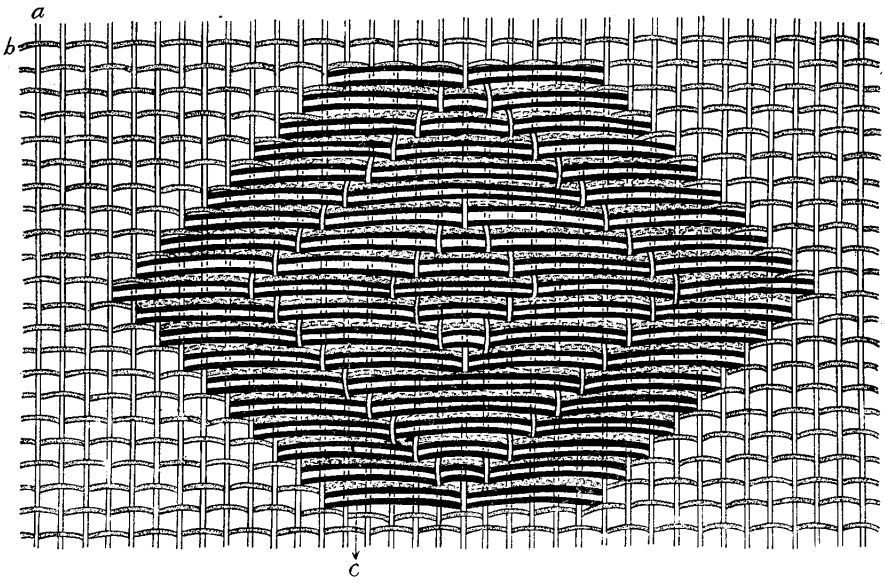


FIGURE SEVEN

and the woollen decorative weft makes its appearance only at the localities where, on the other side, the cotton threads are to be seen. As a matter of fact, the design is a good deal more clear on the reverse of the fabric than on the obverse.

The design on this specimen is typical of the art of the Chimu kingdom in the period just prior to the Incas' conquest of it, about 1450.

Specimen Number Eight is a fragment of brocade measuring $7\frac{1}{2}$ inches in length at the left-hand side. The basis is very fine and delicate white cotton gauze. The decorative weft is of unusually glossy vicuña wool; it is thick and heavy in comparison with the threads of the gauze. The colours in the decorative weft are a magnificent shade of crimson and a deep purple.

As in the preceding specimen, the pattern is produced by the regular order in the shedding of the cotton warp. On the reverse side the pattern faintly shows through where the heavy woollen weft makes its brief appearances.

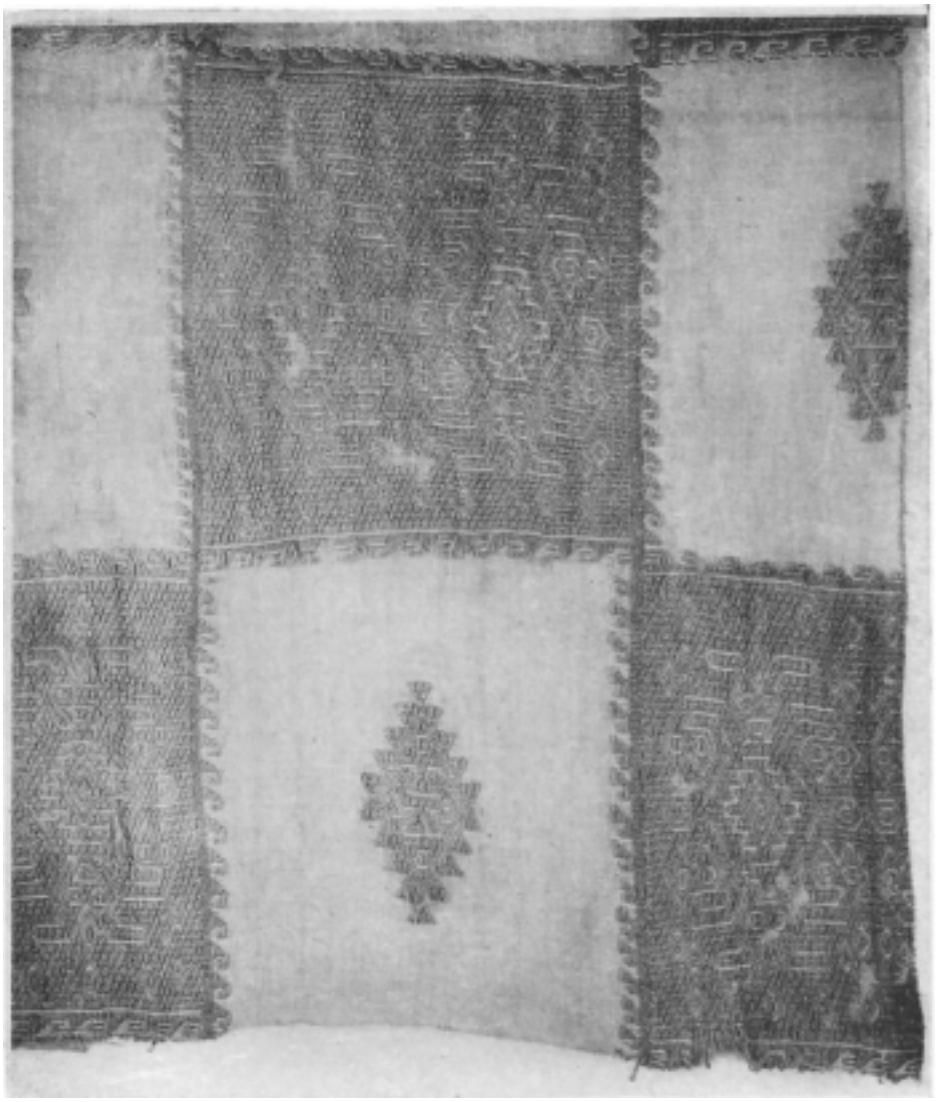
The age of this specimen cannot be determined, but it is almost certainly pre-Incaic.

Specimen Number Nine is a fragment of brocade of unusual type. The fabric measures $8\frac{1}{4}$ inches from top to bottom. The basis is a coarse, canvas-like cotton in ordinary linen weave. The brocading is in fine wool, the colours being brown, black, green, blue, and brownish yellow. The pattern is produced, as in the specimens already cited, by the regular appearance of the cotton fabric through the decorative weft. There is a difference, however, for in the two other specimens of brocade here described only infinitesimal areas of basis fabric were allowed thus to appear, whereas in this specimen they nearly equal in area the space occupied by the woollen weft in each brocaded oblong.

A further point concerning this specimen is the fact that though the border stripe looks like tapestry it is really brocade, resting upon the cotton basis fabric.

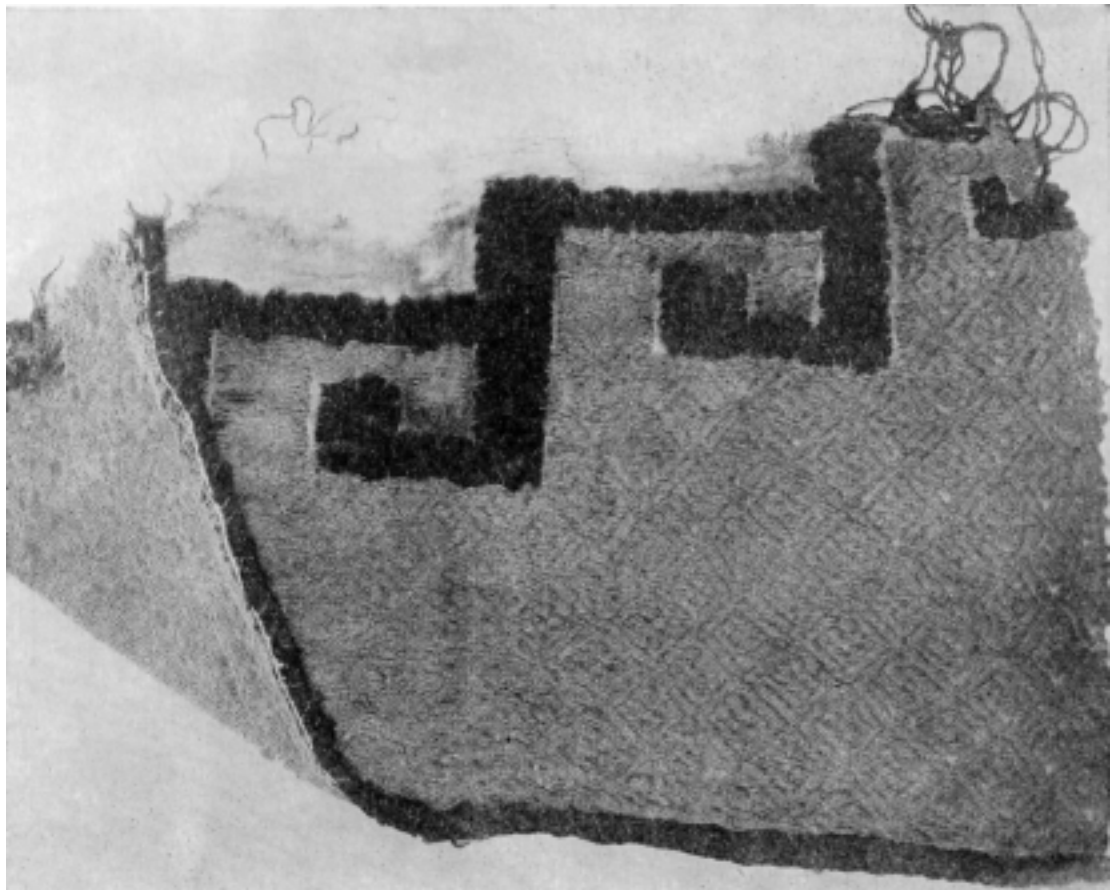
It is possible that this specimen is of the Incaic period.

Specimen Number Ten is a good example of double-faced cloth. Though it is true that both sides of nearly all the specimens cited hitherto are equally attractive, they are not, of course, technically double-faced cloths. But the present specimen is so in that it has two complete sets of warp and weft, the one of white cotton, the other of light brown cotton. Were it not that the two sets interlace with one another from one face to the other of the cloth, we should have two separate cloths, each complete in itself. The weave count on both faces is about 44 warp and 34 weft threads to the inch.



SPECIMEN NUMBER SEVEN

PART OF A BROCADED CLOTH HAVING BASIS OF COTTON AND DECORATIVE WEFT OF VICUNA WOOL. ORIGINAL IN THE AUTHOR'S COLLECTION. LATE CHIMU PERIOD, PRIOR TO 1450 A. D.



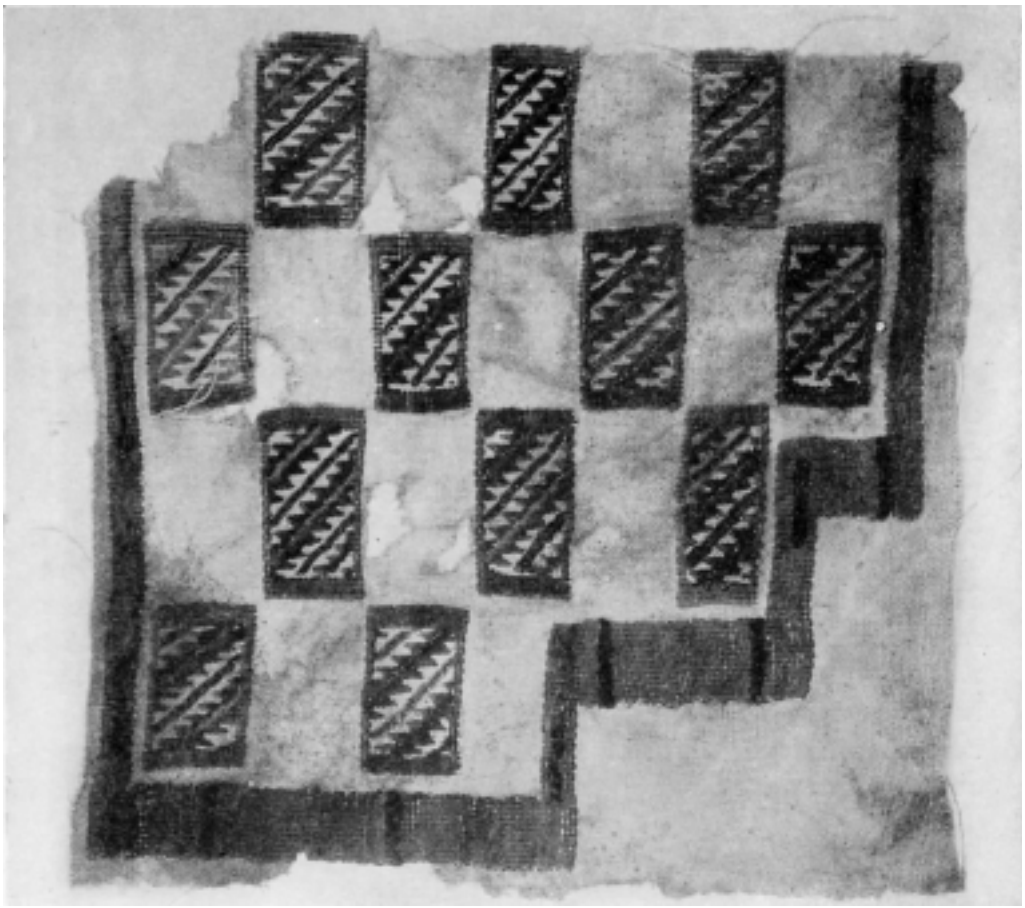
SPECIMEN NUMBER EIGHT.

A FRAGMENT OF COTTON GAUZE BROCADED IN HEAVY VICUNA WOOL. PROBABLY OF THE PRE-INCAIC PERIOD OF THE COAST. ORIGINAL IN THE AUTHOR'S COLLECTION.

This specimen probably represents the late Chimu art of the coast before 1450.

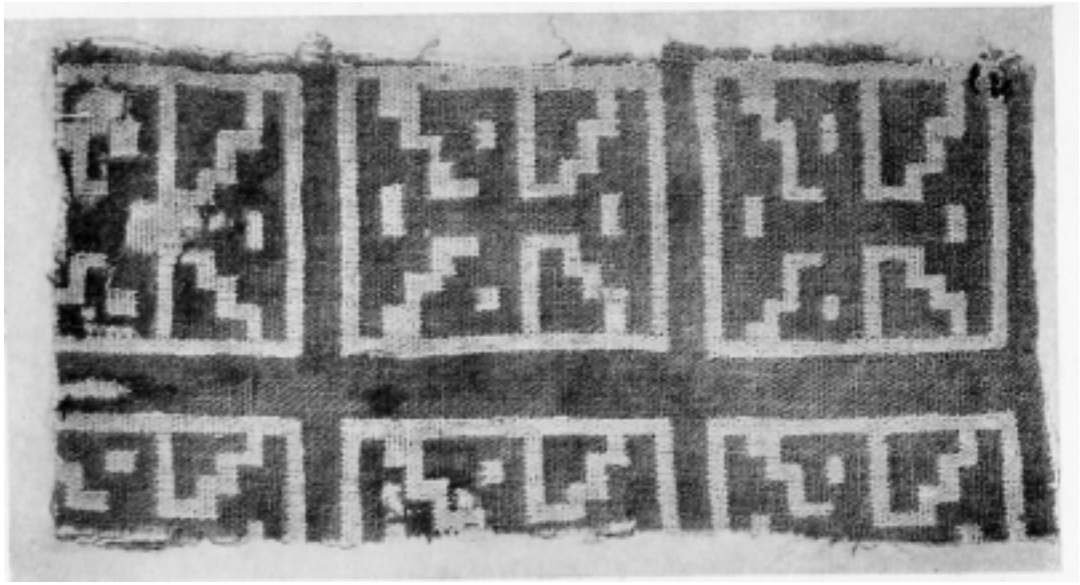
Conclusions

Though the ten specimens here discussed do not by any means cover the entire range of the early Andean textile repertory, they do at least give a general idea of the ability which was attained in early Andean weaving. That a people quite untouched by any sort of outside influence and lacking most of the mechanical appliances which more fortunate peoples elsewhere have employed in the making of their fabrics, should have equalled and even surpassed the Old World's best masters of the loom is highly creditable to the intellectual worth of the ancient Andeans. So also is another point: they were masters of colour and design. To us, in many cases, the patterns which embellish their pottery and their textiles are grotesque and strange enough; but even so, we can nearly always enjoy the harmony of line and the variety of tint which distinguish them. It rarely happens that one finds an ugly combination of shades or an infelicitous arrangement of spaces in their compositions. The Andean artist might be, indeed often was, daring in his colour schemes, and his human and animal figures might be conventionalised almost beyond recognition, but, nevertheless, his designs almost always had the qualities of rhythm, balance, and harmony, which render them beautiful as arrangements of lines, spaces, and tints, even though, from our objective point of view, they may be meaningless.



SPECIMEN NUMBER NINE.

FRAGMENT OF COTTON CLOTH WITH BROCADED PANELS IN WHICH THE DECORATIVE WEFT IS OF FINE VICUNA WOOL. POSSIBLY THIS SPECIMEN IS OF THE INCAIC PERIOD. ORIGINAL IN THE AUTHOR'S COLLECTION.



SPECIMEN NUMBER TEN.

A FRAGMENT OF DOUBLE-FACED CLOTH MADE OF COTTON. PROBABLY OF THE LATE CHIMU PERIOD, PRIOR TO 1450. ORIGINAL IN THE AUTHOR'S COLLECTION.