

STUDIES IN PERUVIAN TEXTILES BY CYRIL G. E. BUNT

DOUBLE-CLOTH WEAVES

MANY authors who have written of the textiles of Old Peru mention that the Peruvians practised a method of weaving in "three-ply". In most cases this statement is probably made on the authority of some previous writer, and no care has been taken to verify its truth. I think that it must have been Squier who first made the assertion, and subsequent writers have copied him, scarcely understanding what "three-ply" means as a weaving term. In the nature of things one cannot bring exhaustive negative evidence against the contention, but it is, to say the least, doubtful. There is no such fabric in any of the collections I have studied, including those at Bloomsbury and South Kensington. I cannot say what there may be in continental or American museums or in private hands, but I feel sure that, if examined, these collections, although they will yield interesting examples of "two-ply" or double-cloth weaves, will be found to contain no true "three-ply" fabrics.

It would perhaps have been unnecessary to deal with this question at length were it not that even Dr. Uhle, one of the foremost authorities on Peruvian works, in his fine monograph on Pachacamac has mentioned these three-ply cloths, and moreover has given weavers' drafts of three of the pieces in question. To those unfamiliar with the technique of weaving this may well be held to settle the question. Coming as it does from so eminent an authority it would indeed have been conclusive were it not that these diagrams do not really illustrate three-ply weaves. They appear rather to be diagrams of double-faced cloths, and

even at that are unsatisfactory. Only an examination of the actual stuffs or more comprehensive drafts prepared by a practical weaver from actual analysis of the weaves could settle the matter. Dr. Uhle's reference in the same work to a modern fabric of a like nature from Bolivia (illustrated in "Kultur und Industrie", II. pl. 14) would appear rather to support than invalidate my contention, although here again it is impossible to tell definitely from the coloured lithograph.

Three-ply cloth is built up of three distinct webs, and necessitates three warps and three wefts. In like manner two-ply or double-cloth weaves are composed of two distinct webs with two warps and two wefts. Moreover in such weaves the portions which are plain unfigured tabby are susceptible of being separated one from the other, and if cut through an instrument such as a paper-knife may be passed between the webs.

Even if the Peruvians should prove to have been unacquainted with the method of weaving in three-ply, we must accord full credit to their inventive genius in that they carried double-cloth weaving to a remarkable state of perfection. When we consider their cultural position of complete isolation from what we consider the civilized world, the achievement is surprising. It speaks volumes for their ingenuity and ability. I venture to think that if ever it is found possible to assign definite dates to the non-Incan textiles it will be found that these weavers of the ancient New World invented the process of weaving double cloth almost, if not quite, as early as their brother weavers of the Old World. No tissues of a like technique are known among the products of the Eastern hemisphere of earlier date than the 12th

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century, and the very latest of Incan weaves cannot be much later than the end of the 15th.

In considering the technique of these interesting fabrics it will be useful to take as an example one of the less complicated pieces [FIG. 1], the original of which, in the Victoria and Albert Museum, is from a small piece of non-Incan fabric, found in the graves near Lima. It is a panel of blue and

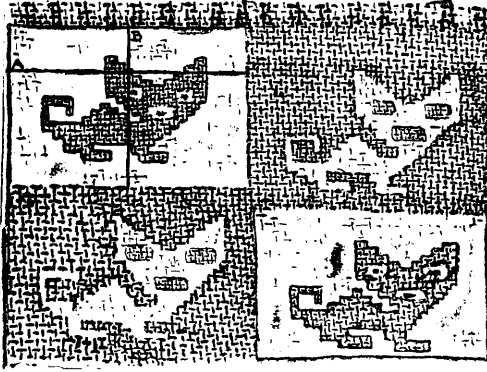


FIG. 1

white cotton divided into rectangles, in each of which is an animal with a big head, staring eyes, and a curved tail. The colours are reciprocal, that is, where blue appears on one side it is white on the reverse, and *vice versa*. The warps were laid upon the warp-beam in pairs, two white and two blue alternately, as may be seen at the top edge. Where the two colours separate to form the panels, the number of threads and picks being halved, the ground appears as a somewhat loosely woven tabby. The design is produced by the interchange of the webs, the warp and weft of one ply rising as the other falls. A horizontal section at the line A is shown in the following diagram [FIG. 2, A]. The dots and circles represent the warps in the two colours cut through, while the lines and dashes represent two throws of weft in



FIG. 2

each colour. In like manner the next diagram [2, B] is a vertical section along line B. The dots and circles in this case stand for the severed wefts, while the lines and dashes indicate the two white and two blue adjacent warps. It will readily be seen from these sections that the two webs are quite distinct except at the points of intersection.

All of the fabrics illustrated are built in this way, the structure being characteristic of all

true double-cloth weaves. Although it may not be so readily apparent to the lay mind as to one familiar with the possibilities and limitations of the hand-loom, it is a fact that to evolve a cloth of this structure on a primitive loom would be a task of some difficulty. We have here quite a different problem from that which faced the weavers of even the finest of Peruvian tapestries. Great ingenuity and perseverance were the outstanding needs in the case of the tapestry work but in the technique there were no complications. In the case of the weaves we are describing however there are exceptional difficulties to be overcome. All the ordinary weaves met with in ancient Peruvian textiles could be accomplished on quite a primitive loom, consisting of little more than a framework upon which to warp the threads and several healds or heddle-sticks. To construct successfully a double-cloth such as we are considering would be practicable,

however, only with very small designs and geometric repeats if such a loom were employed. It would therefore seem certain that the weavers of old Peru were familiar with the principle of the draw-loom, and this not only before the Spanish conquest but even prior to the Incan domination. It is not of course contended that their looms were in any sense draw-looms in the modern conception of the term, but the draw-loom principle was certainly applied in a rudimentary form. We are forced to this conclusion because the only other possible way of accomplishing the task would be by the employment of a multiplicity of healds, which would involve such congestion as to make the machine practically unworkable. It is this remarkable technical consideration which lends so much interest to these double-cloth weaves. They enable us to appreciate to some extent the exceptional skill of these old weavers who in pre-Columbian times had already mastered the difficult art of weaving as they had mastered pottery making and goldsmiths' work.

As in the case of the pre-Incan piece already

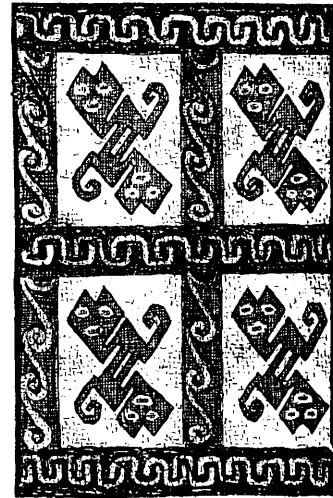


FIG. 3

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mentioned, so with the two pieces illustrated in FIGURES 3 and 4, the pattern is produced by the interchange of the webs. The technique is precisely similar. But there is a marked improvement in the closeness of the work and the successful

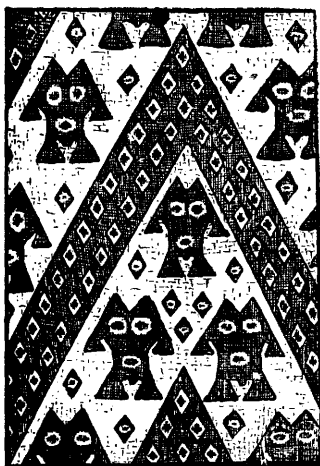


FIG. 4

handling of the design. FIGURE 3 is worked out in dark brown and buff-coloured wools of fine quality—probably alpaca. FIGURE 4 is in a coarser thread, perhaps Llama wool, not so pliable to the touch and more rusty in colour. Quite apart from the fact that the piece illustrated in FIGURE 1 is by no means so finely woven as these others, it is obvious that it must be ascribed to an earlier date. It is quite clearly a product of the coast before the Incan influence had become manifest. FIGURES 3 and 4 on the other hand are of Incan age, although possibly woven by weavers of the coastal districts. The Incas were always awake to the value of good craftsmanship, often moving weavers and metal-workers of conquered tribes to Cuzco, their capital, that they there might work for the Inca's benefit.

With regard to the age of these interesting cloths we cannot dogmatise. We know that all three pieces were secured from graves in the neighbourhood of Lima. That is all unfortunately. The Lima (Lurin) valley, and the neighbouring valleys of Pachacamac, Rimac and others, came under the Incan sway during the reign of the Inca Pachakutij (1340-1400) and it was probably not much more than ten years before the close of Pachakutij's reign that Cuismanco, chief of the tribes inhabiting those valleys, diplomatically capitulated to the Inca and became his ally. Thus it would seem quite safe, and not far wrong, to assign the two later pieces to the 15th century, while the earlier piece [FIG. 1] is most probably of late 14th. century date. More than this we cannot at present say. Other pieces of double-cloth weave similar to the later fabrics are to be seen in the British Museum, one of which has been illustrated by Mr. T. A. Joyce in his "South American Antiquities". These are much of the same age as these later specimens in the South Kensington collection.

But in FIGURE 5 we give a sketch of a stuff which, if its history is correctly stated, is perhaps the earliest known example of double-cloth weaving from Peru. It is in the collection of Mr. J. Guthrie Reid of Queen's Gate, S.W., and comes from Nasca. It is moreover believed to have been secured from one of the graves from which the same owner's fine collection of Nasca style pots was obtained. Of course there is the element of doubt inseparable from non-scientific excavation, but an examination of the fabric and the whole "feeling" of the piece leads me to think it may quite possibly be of this period. It is certainly of non-Incan workmanship, and most probably considerably older than the piece FIGURE 1, for the period of the Nasca type pottery preceded the later pre-Incan age to which FIGURE 1 is ascribed. In fact it is one of the earliest cultural periods of Peru. This piece was described in a London weekly publication as "tapestry" and was referred to the Incan period. It is of course neither the one nor the other.

In conclusion a word or two may be said of the decorative features of the cloths here illustrated. The quaint animal appearing in the first has been said to represent the puma. But a close study of the animal in its many variations both in the tapestries and on the pottery leads one to recognise it as the wild mountain cat—an animal sacred in old Peru, particularly in the neighbourhood of lake Titicaca. In fact the lake is said to derive its name from this animal—*Titi qaca*, the rock of the mountain cat. The same animal appears also in FIGURE 1, a somewhat severe but pleasing design in which two cats in reversed positions are set within panels formed of interlocking scrolls. FIGURE 4 has a pattern resembling to some extent the motives found on some of the Chan-cay vases. Between diagonal bands of diamonds are set conventionalised male figures, the symbol of some sacred idea which is at present unknown. FIGURE 5 has the familiar "stepped pedestal"—the symbol of the "Great Spirit of the Earth"—Pachacamacaj.

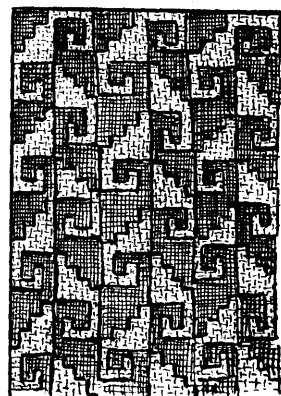


FIG. 5

But it is the technique of these weaves that is of outstanding interest. The more one thinks of it the more astonishing it seems. For here we have a highly technical achievement appearing as the result of isolated development in

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a comparatively small and savage culture-centre at the time unknown to the civilised world. It would be difficult to find a more striking instance

of parallel development, in any craft, in circumstances which preclude all possibility of a common origin for the process.