

**THE UHLE COLLECTIONS
FROM CHINCHA**

BY

A. L. KROEBER AND WILLIAM DUNCAN STRONG

EXPLORATIONS AT CHINCHA

BY

MAX UHLE

**UNIVERSITY OF CALIFORNIA PUBLICATIONS IN AMERICAN ARCHAEOLOGY
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INTRODUCTION AND PLAN

In 1899 Dr. Max Uhle, well known for previous studies in South American archaeology, and having at that time completed for the University of Pennsylvania his excavations at the famous site of Pachacamac on the coast of southern Peru,¹ was engaged by Mrs. Phoebe A. Hearst to carry on explorations in Peru for the University of California. Between 1899 and 1901 Dr. Uhle accordingly excavated and assembled collections in the districts of Trujillo, Huamachuco, Chincha, Pisco, and Ica. These collections were sent to the University and became an important part of its Museum of Anthropology, then in foundation. Late in 1901 Dr. Uhle was called to Berkeley. During the two years following he was engaged in exploration of a shellmound at Emeryville near the University, and in the classification of his Peruvian collections and data and the preparation of a report on them. In 1903 he returned to Peru for the University through the continued interest and assistance of Mrs. Hearst, and formed collections in the districts of Ancon, Chancay, Supe, Cuzco, Chala, Nazca, and Lima. These labors occupied him until his resignation to accept the position of Director of the National Museum of Peru, January 1, 1906.

Dr. Uhle's collections comprise some 9300 numbers, besides a separate series of several hundred skeletal remains. The actual number of pieces is considerably larger, since closely associated objects were frequently grouped by him under a single number. The collections are of unusual scientific value. They were gathered by a trained scientist at productive points stretching from northern to southern Peru, and from the coast to the highlands. They are accompanied by records made at the moment of excavation. And above all, the greater number of objects are carefully segregated and specified according to the cemetery and grave in which they were found. During all of his work for the University of California, Dr. Uhle

¹ Pachacamac. Report of the William Pepper Peruvian Expedition of 1896. Univ. Penn., Philadelphia, 1903.

seems not to have succeeded in encountering another clear instance of stratification of cultural deposits comparable to the notable discovery of this kind which he made at Pachacamac.² Throughout his labors, however, he faced the fundamental problems of cultural development in the Andean region, and realized that in the main these problems could be solved only by regard to the relations of cultural types. It was with this consideration in mind that, wherever conditions permitted, he recorded the provenience of all artifacts with reference to the particular human body or bodies with which they were associated.

After the organization of the Museum of Anthropology the collections were recorded in the permanent Museum catalogue. The plan followed was to set apart for them a special volume of the catalogue in which they could be entered under the same numbers which Dr. Uhle had given them. Owing to the lapse of a number of years between the dates of collection and the final cataloguing, and in part, also, to the climatic change involved in the transfer from Peru to California, a certain minor percentage of objects had lost their original numbered labels or had been otherwise defaced and could not be positively identified. In several instances, also, irreconcilable differences appeared between specimens and the correspondingly numbered entries in the collector's field catalogue—as is almost unavoidable in a collection of bulk made under the trying conditions of work in the field. In all such cases the principle was followed that specimens which did not identify perfectly were omitted from the Museum's general Peruvian catalogue, given entirely new numbers, and entered in a separate catalogue of unidentified or dubiously identified pieces. The numbers in this special catalogue bear a different prefix (16) from those in the general Peruvian catalogue (4). There is thus every assurance that all specimens listed in the latter are the identical ones which the collector described under the same number in his original notes.

During his stay in Berkeley Dr. Uhle prepared for publication a report on the results of his explorations from 1899 to 1901—that is, on the results obtained by him in the vicinity of Trujillo, Huamachuco, Chinchá, Pisco, and Ica. This report he wrote in German. He took the manuscript with him on his second expedition to Peru in order to arrange and supervise its translation into English, with a view to publication by the University. One circumstance and

² *Ibid.*; also, *Types of Culture in Peru*, *Am. Anthr.*, n.s., iv, 753-759, 1902.

another, however, delayed the translation, and after the author entered upon new connections and duties in South America the completion of the manuscript was more and more relegated to the future. As time went on, Dr. Uhle published a number of important papers based in whole or in part on his explorations for the University. A series of these in the proceedings of the International Congress of Americanists³ is especially notable in its cumulative contribution to the unraveling of local and temporal phases of native culture in the Andean area. The scope of these papers, however, forbade much more than a statement of interpretation and summary of the evidence. The wealth of data on which their conclusions rested was scarcely touched. Possibly for this reason they have failed to remould current opinions on the development of Peruvian civilization as thoroughly as they might otherwise have done. Certainly the interpretations set forth by Dr. Uhle have been novel and specific enough to attract the widest historical and scientific attention. At any rate, twenty years have now passed since Dr. Uhle sailed from California for South America, without more than sporadic specimens from his magnificent collections for the University having been described.

In view of this situation, the authors have taken it upon themselves to make available and interpret Dr. Uhle's collections and data. For this study there are available the specimens themselves, together with their inventory descriptions by the collector and in the Museum catalogue; various more general descriptions, comments, and current interpretations forming part of the letters in which his inventory was included; several sketch maps of the sites of the excavations; and photographs taken in Peru.

The plan is to examine separately and in detail the collections from each district; to group together, according to the field inventory, specimens of the same grave provenience; to group the graves according to type of artifacts represented in them; to assume that graves containing artifacts of identical type belong to the same period, and that those containing artifacts of consistently different types belong to different periods; and then, from the overlapping of types and whatever other evidence, direct or indirect, may be available, to attempt to establish a sequence of the periods.

³ Bericht über die Ergebnisse meiner südamerikanischen Reisen, Intern. Congr. Americanists, xiv (1904), 567-579, 1906; Aus meinem Bericht über die Ergebnisse meiner Reise nach Südamerika 1899-1901, *ibid.*, xiv, 581-592; Ueber die Frühkulturen in der Umgebung von Lima, *ibid.*, xvi (1908), 347-370, 1910; Die Muschelhügel von Ancon, Peru, *ibid.*, xviii (1912), 22-45, 1913; The Nazca Pottery of Ancient Peru, Proc. Davenport Acad. Sciences, xiii, 1-16, 1914.

In this work the authors have followed one principle as basic: to proceed objectively, giving consideration only to the specimens themselves and the collector's unqualified statements of fact concerning them, and disregarding for the time being all interpretations embodied by him in his records. They realize that, in so far as mere opinion is concerned, Dr. Uhle's views carry far more weight than theirs, both on account of his wide experience and first-hand familiarity with South American archaeology, and because of his presence at the excavations. Their aim, however, is to establish, so far as may be possible, findings incontrovertibly substantiable by evidence and free from opinion or subjective interpretation; this being obviously the great need in a field in which so vast a mass of data has been accumulated, with so little of scientific record to accompany them, in the great majority of cases, that interpretation to date has been either lacking or necessarily largely subjective.

Dr. Uhle's interpretations and conclusions, in so far as they are available from his field records, have not been discarded. In fact, it will be seen below that they corroborate very largely the findings of the authors. But, inasmuch as the latter have proceeded independently, the effect of such correspondences is to strengthen their determinations, as well as to substantiate empirically the opinions which Dr. Uhle formed from evidence under his observation, but which in his records deposited at the University are often not distinguished as to their objectivity or subjectivity.

The collection chosen for first attack is that from the valley of Chincha. This was selected partly because it was assembled by Dr. Uhle on his first trip and was therefore temporarily unpacked and photographed under his supervision in Berkeley. It is a somewhat smaller collection than those from most of the other districts in which he operated. It comprises several types of pottery, most of these types bearing obvious relations to pottery types found by Dr. Uhle in the district of Ica; where, however, still other types appear not represented at Chincha. The problem of culture sequence is therefore presumably more complex at Ica—at any rate, is represented by more variable as well as more numerous data. The Chincha collection accordingly promised more immediate results, as well as to become of aid in the subsequent interpretation of the larger Ica collection. It is hoped that, as time and opportunity permit, the collections made by Dr. Uhle in other parts of Peru can be similarly examined and reported on.

CHINCHA VALLEY AND THE EXCAVATIONS

The valley of Chincha is approximately triangular, faces the sea, and extends some ten kilometers in length and fifteen or more in breadth (map, pl. 1). It appears to be divided into two natural portions of somewhat different level. The northern and higher portion contains the larger settlement and capital, Chincha Alta. To the southwest and considerably nearer the sea in the lower valley is Chincha Baja, founded by the conquistador Alvarado, below which, at Tambo de Mora, are the steamer landing and the terminus of the railroad from Chincha Alta.

In the lower level of the valley the dominant feature in the landscape appears to be the group of ruins called La Centinela (map, pl. 24). These lie about a kilometer from the sea, and extend inland toward Chincha Baja. At their seaward end there arise the great pyramid of the Centinela proper at the northwest corner, and the extensive ruins of what Dr. Uhle describes as an Inca palace at the southwest corner. Both of these structures are built of adobe brick and clay (pls. 2-5, 23).

To the south of the Centinela, or to the right on a view from the sea, are the ruins of Tambo de Mora (pls. 6, 7, and in the distance in 4), toward the harbor settlement of the same name; and a little farther inland another group called the Huaca de Alvarado (pl. 9). A short distance to the left or northeast of the Centinela is an elevation known as La Cumbe (pl. 8), which was also inhabited in ancient times. Between La Cumbe and the Centinela the railroad winds its way up from the landing to the upper level of the valley on its way to Chincha Alta. From near the point on the railroad where it passes between La Cumbe and the Centinela, begins a barranca stretching several miles in a direction which at first is rather northeasterly and then easterly. This barranca marks the division between the upper and the lower levels of the valley. Along this barranca is situated a series of ancient sites and cemeteries (pl. 10). Other ruins and remains of occupation lie scattered through various parts of the valley, as appears from the map (pl. 1). It would appear that the valley at large was cultivated in pre-Columbian times in much the same manner as at present, and perhaps to as great an extent.

Dr. Uhle conducted excavations at six main points in Chincha valley, which have been designated by the authors and in the Museum

catalogue by the letters A to F. The situation of these is given on the map (pl. 1) and is further described by Dr. Uhle in his field catalogue as follows:

Site A. "On the declivities of the valley towards the sea, 5 km. from Tambo de Mora to the north." Nos. 3622-3640.

Site B. "Large cemetery, in great part [previously] exhausted, near La Cumbe, [which is] ruins about 1 mile from Tambo de Mora to the north." Nos. 3641-3714. See pl. 8.

Site C. In "the higher northern part of the valley (comprising the districts of Sunampe and Chinchá Alta), [viz., at] Pampa de Cotegeiros. These declivities are in front of the lower irrigated and cultivated part of the valley." Nos. 3715-3834.

Site D. "Chamber-like tombs, which had been dug out in a mound-like older huaca, the Huaca de Alvarado, between the Huaca of Tambo de Mora and Chinchá Baja. . . . The contents of these tombs belonged to the last pre-Inca period . . . and not to an older period as was supposed [by me] at the beginning of the excavation. . . . The tombs almost without exception had been opened previously." Nos. 3835-3892. See pl. 9.

Site E. "The dry natural terrace, Pampa de Canelos, in front of the ruins of La Centinela, to the north-northeast, to the east of the railway." Nos. 3896-4064.

Site F. "The natural terraces with slopes directed to the sea north of La Cumbe (circa Las Palmas)." Nos. 4076-4134.

Only two of the sites, those here designated as B and D, were actually entered by Dr. Uhle on the map filed at the Museum. A third site, E, can be located on the map from his description with fair certainty. Sites A and F can also be placed at least with approximation. His description of site C, however, allows this to be set anywhere within a considerable stretch along the declivities. All that is certain in regard to its location is the general part of the valley in which it was situated.

There are no plats or descriptions available of the position of individual graves with reference to their location within cemeteries or in relation to one another, nor statements of their depth.

POTTERY VESSELS

SITE E: LATER GRAVES

Site E affords a good beginning for the examination of pottery types because several of its graves held European articles, thus affording a starting point for chronology. Graves E 8 and E 13 each contained a series of blue glass beads obviously imported from Europe. These beads are opaque, bright in color, perfectly smooth, approximately 4 mm. square in cross-section, slightly twisted, 3-5 cm. long, with longitudinal perforations. About 15 beads constitute E8-3946 and 30 beads E13-4005. The latter interment or group of interments showed further evidences of having been made in part after the Spanish conquest.⁴

Grave E 8 happens to have contained no pottery. E 13, on the other hand, contained an important series of pottery vessels. E 13 appears to have been a tomb rather than a grave, as the collector's notes mention several bodies. Part of the sixty odd specimens from E 13 were found in definite association with particular mummies; the others it appears to have been impossible for Dr. Uhle to assign with certainty to one or the other body, although there was no doubt of their forming part of the same general interment designated as E 13, which may therefore have represented a family grave plot.

Aryballoid jars.—Outstanding among the vessels from E 13 are nos 4018, 4012, and 4021 (figs. 1*a*, *f*, *c*), small "aryballoid" jars of a type generally recognized as Inca ware. This characteristic form speaks for itself in the illustrations. It may be described as a jar or vase with pointed bottom, its greatest width near this bottom; the taper upward from this width proceeds slowly at first, and then more rapidly, toward a narrow neck, after which the neck flares again until the opening is nearly as large in diameter as the neck is long. Rather low on the body of the jar are two handles; on the front or painted side of the body, just below the neck, is a knob for catching a carrying cord.

Dr. Uhle collected several such aryballoid jars in the vicinity of Cuzco. One of these, 7997 (fig. 2*b*), lies within the range of size of the Chincha specimens, viz., 15-25 cm.; others from Cuzco are a full meter tall, a half-meter or more

⁴ E13-3977, iron (?) ornament; E13-3949b, red painted leather (?) or felt; E13-3975, strings of small red Spondylus and green glass beads. E8-3946 also includes several medium-sized blue and parti-color beads.

in diameter, and very massive. Whether the jar is large or small, the decoration usually follows the same characteristic plan. In front, the area between the handles, down to the base and up to the neck, is treated as a unitary decorative field or panel. Usually this panel is divided into a central portion and two flanking portions which differ somewhat in pattern content, although the design motive is similar; viz., small horizontal figures or rows of figures grouped on both sides of a central stem like the veins of a feather or the branches of a symmetrical plant.

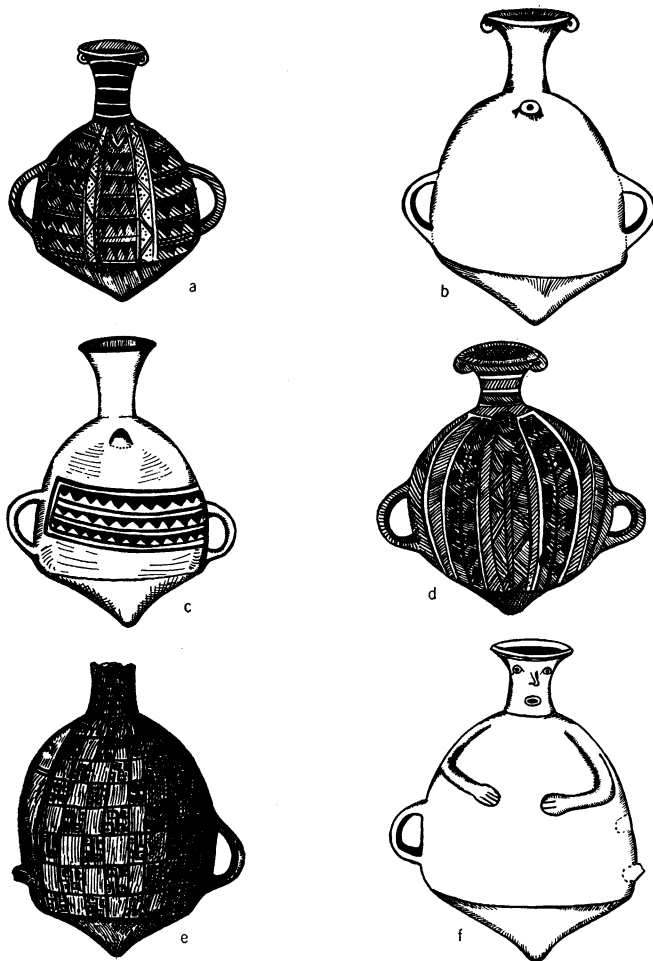


Fig. 1.—Inca period aryballoid jars from site E. About .2 natural size. *a*, E13-4018 (black; white; dark red, hatching right to left; light red, hatching left to right); *b*, E14-4032; *c*, E13-4021; *d*, E7-3945 (black, white, dark red as in *a*; brown, hatching left to right); *e*, E5-3936; *f*, E13-4012.

This style of decoration occurs in Chincha specimen E13-4018 (fig. 1*a*); and, with some variation (which however is paralleled in the piece from Cuzco, fig. 2*b*), in E13-4021 (fig. 1*c*). E13-4012 (fig. 1*f*) is black, with lightly modeled face and arms.

The association of these vessels with the glass beads, and the recurrence of the same type in the collection from Cuzco, definitely corroborate the identification that has long been made: that the aryballoid jar is a distinctive Inca type which presumably originated in the highlands about Cuzco and was carried by the Inca conquest to the coast. It is also clear that, at the time of the Spanish conquest,

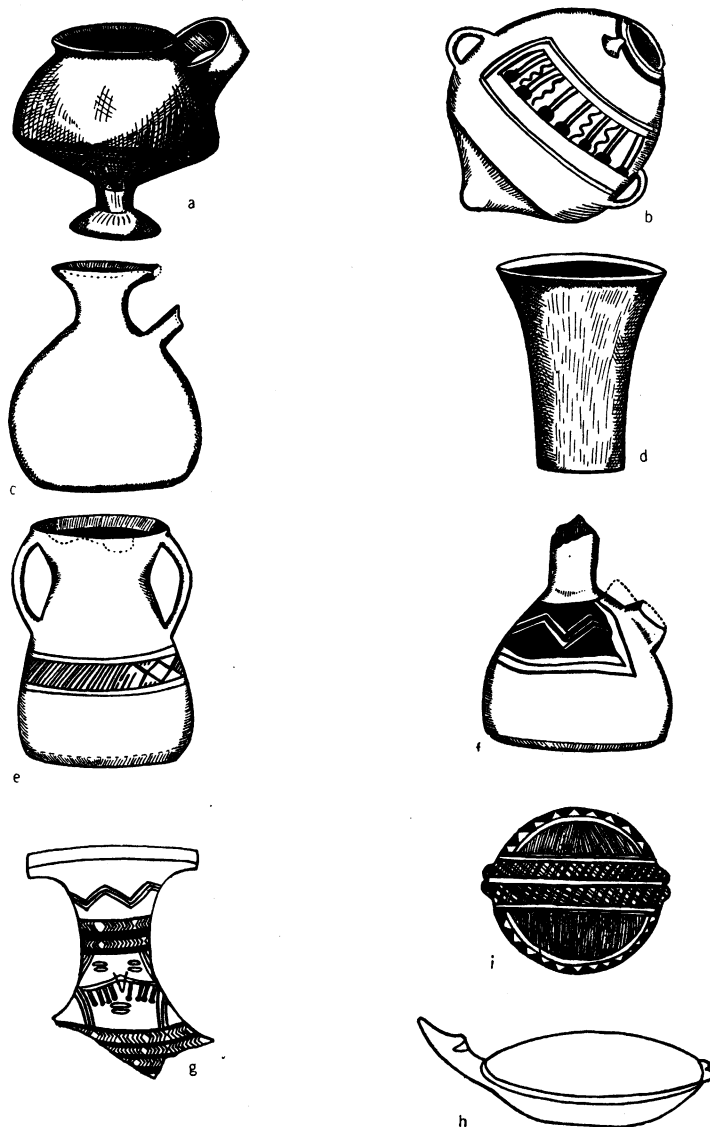


Fig. 2.—Pottery from the vicinity of Cuzco, collected by Max Uhle. *a*, 8000; *b*, 7997; *c*, 8036; *d*, 8007; *e*, 7999; *f*, 8014; *g*, 7996; *h*, 8002; *i*, 8004.

and for at least a few years thereafter, jars of this type were in use at Chincha. The fact that such jars occur in reasonable numbers at Chincha and in other coast regions suggests that it was the style rather than the pottery itself that was imported, and that vessels of this type were manufactured on the spot perhaps for some time before the Spanish conquest and certainly in its immediate period.

It may be added that while none of the E graves—and in fact none at any other site at Chincha—yielded large, massive aryballoids, a neck of one of these large pieces, 4073*a*, 13 cm. in diameter at the narrowest point,⁵ was found by Dr. Uhle at a spot which he does not specify in detail, but mentions as being near site E.

Proceeding now from the aryballoids in E 13, we encounter vessels clearly of the same type in four other graves in the same cemetery; viz., E5-3936 (fig. 1*e*), E7-3945 (fig. 1*d*), E11-3960 (fig. 3*e*) and E14-4032 (fig. 1*b*). The first two of these are colored in the same general scheme as the two specimens from E 13. The piece from E 11 is in red, unpainted, with a snake modeled in relief in place of the decorative panel. The piece from E 14 is polished blackware, *i.e.*, smoked or bucchero. These finds establish graves E 5, 7, 11, 14, as definitely dating from the period of Inca domination.

Incised collar jars.—Another type of vessel is represented by two pieces, E13-4016 and E13-3994 (fig. 3*b*), in grave 13. This type is a polished black jar with approximately spherical body, a single loop-like handle near the top of the body but definitely below the neck, and a vertical neck which does not flare quite so much toward its mouth as the neck of the aryballoid jar. The bottom of the jar is sufficiently flattened that it will sit without rocking. The most distinctive detail is a small raised collar around the bottom of the neck. The collar is incised with diagonal striations, which give to it some effect of a cord or rope. The side of the body opposite the handle bears, in one case, a small shell in relief. This type of vessel may be called the incised collar jar.

Jars of this type are found in two other E graves: E9-3951 (fig. 3*a*) and E15-4039. The former shows a variation in the handle, which, instead of being round or cord-like in cross-section, is flat and bears an incised pattern. The face of the body away from the handle carries a peanut modeled in relief in place of the shell of fig. 3*b*.

From a comparison of the findings derived from these two pottery types, the following graves at site E can therefore be assigned to the Inca period: 5, 7, 9, 11, 13, 14, and 15; to which may be added 8, on account of its glass beads.

⁵ This diameter suggests a height of 80-90 cm. for the jar.

Other types.—Other pottery types whose period is fixed by their occurrence in E 13 are the following:

A vessel with foot, lid, and short handle projecting upward, represented by E13-4022 (fig. 3f), of pale reddish ware, unpainted and unpolished. This is another recognized Inca type. A smaller though

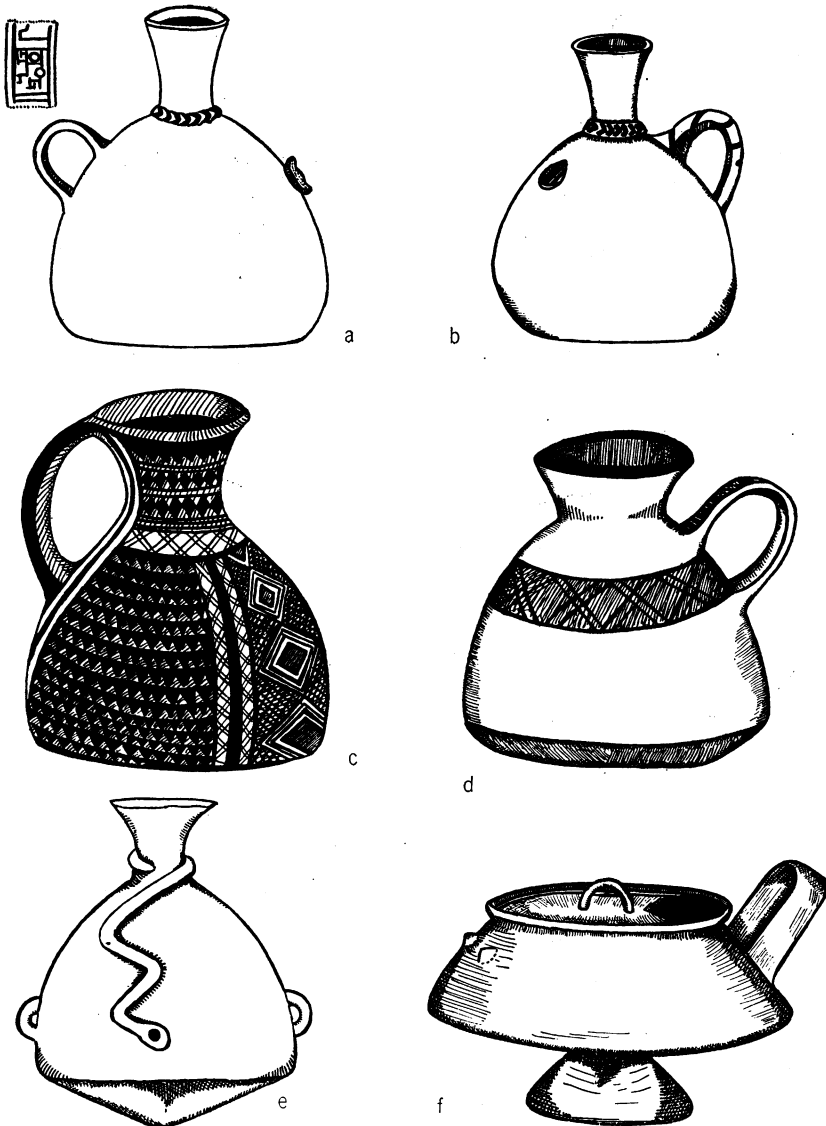


Fig. 3.—Inca period pottery from site E. a, E9-3951 ($\times .33$); b, E13-3994 ($\times .25$; incised blackware); c, E13-4020 ($\times .37$; black, red, buff); d, E12-4019 ($\times .25$; black and white band on buff); e, E11-3960 ($\times .25$); f, E13-4022 ($\times .5$).

lidless jar of this type found by Dr. Uhle in the Cuzco district forms no. 8000 of the collection (fig. 2*a*). The handle of the Chincha piece is flat in cross-section; its plane is not vertical to the plane of the mouth, but cuts it at approximately 45 degrees.

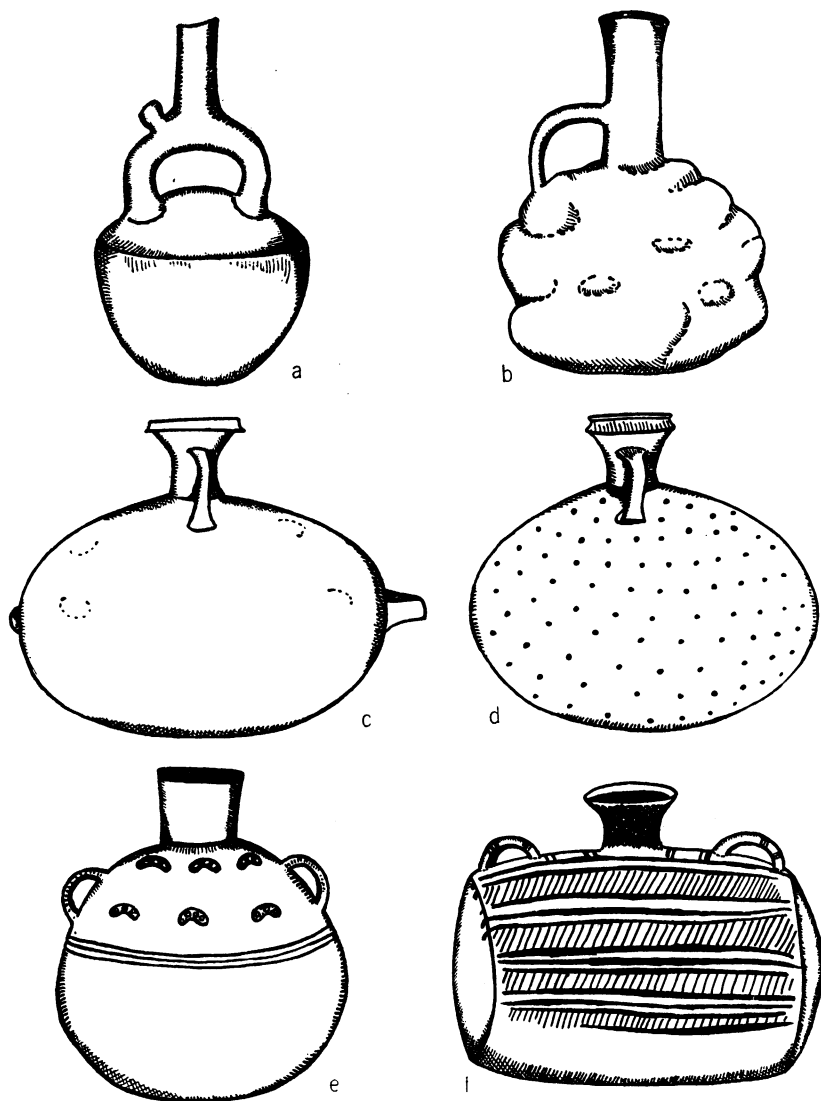


Fig. 4.—Inca period pottery from site E. *a*, E11-4359 ($\times .17$); *b*, E11-3958 ($\times .25$); *c*, E18-4052 ($\times .25$); *d*, E13-4013 ($\times .12$); *e*, E13-3974 ($\times .12$); *f*, E13-4017 ($\times .17$; clear red, dark red, black; bottom rusty black).

Flat handles, forming a generous loop, but ribbon-like in cross-section, appear to be a distinctive Inca trait. They occur not only in the piece last mentioned and in the incised collar jar mentioned above, but in E7-3945, a black, buff, and dark red painted jar with short neck. The handle of this jar also extends diagonally upward.

Another Inca device is a pattern of worms, flies, insects, or simply numerous spots giving a similar effect. This type of pattern is represented by half a dozen sherds, no. 8052, from several vessels from Cuzco, and by a number of vessels from the Ica district. Chincha grave E 13 contains three specimens of this type. Of these, E13-3974 (fig. 4e) is a two-handled jar, the decorative zone on the upper por-

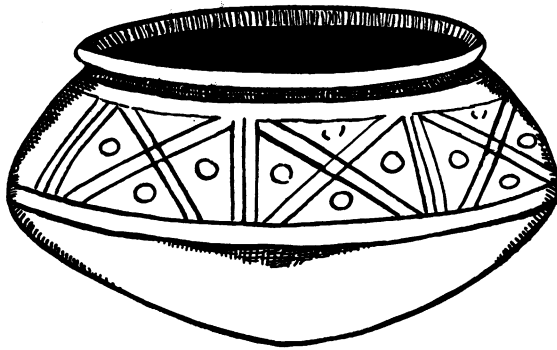


Fig. 5.—Inca period yarn bowl from site E, incised blackware. E18-4053 (× .33).

tion of which bears a number of red worm or kidney-shaped figures each containing five or six black spots. E13-3993 and 4013 (fig. 4d) are jars with a single handle springing from the body to the neck, whose white surface is spotted with shapeless black dots.

E13-4017 (fig. 4f) is a barrel-shaped jar with small neck or spout. In line with this neck are two small loop handles on the top—not at the ends—of the body. The general shape of this vessel is that of a cylindrical canteen, which purpose it no doubt served. The painted decoration is in horizontal stripes suggesting the markings of a squash or melon.

E13-4020 (fig. 3c) is a deep red jar with black-and-buff design resembling the patterns on aryballoids. Its flat handle rises from the body to end at the mouth. E13-4019 (fig. 3d), the same in shape, is buff, with a black-on-white pattern confined to a band, similar to that of the aryballoid E13-4021.

E13-3961 is a small black pitcher of the incised collar type. The collar, however, is lacking, and the neck is wound for nearly its full height with actual string.

Other pottery types occur in the undoubted Inca graves of site E, but are not discussed here either because they are insufficiently distinctive, because they are represented by single specimens only, or because they fail to find definite parallels in other regions for which a period of Inca influence is positive.

Grave E 18 appears to the authors as probably of Inca period, but they do not feel wholly certain. It contains a dark red jar, 4052 (fig. 4c), 17 cm. long, 11 cm. in diameter, resembling the spotted jar E13-4013, fig. 4d. At one end is a white protuberance suggestive of the stem of a gourd or squash, and the vessel is probably to be interpreted as a representation of one of these fruits.

E 18 also contains specimen 4053, of 19.5 cm. diameter, 9.5 cm. high (fig. 5), which is a low black incised bowl recurved toward its mouth, which bears a rim. This specimen is unique for site E, but somewhat resembles several vessels found at other sites, apparently of an earlier horizon, which are discussed below; although the latter uniformly show minor traits that do not appear in the present piece.

Grave E 11 is established as Inca by its aryballoid, but contains two unique pieces. E11-3958 (fig. 4b) is a small unpainted red jar having a straight neck with a loop handle between it and the body. This body is wrinkled into low eminences and depressions, giving it the general effect of a potato. E11-3959 (fig. 4a) is a polished black jar with a stirrup-shaped neck or spout: two tubes rise from the top of the body, turn toward each other, meet, and then rise again in a single upward-pointing mouth. This shape of vessel is abundant on the northern coast of Peru, the University's collections from the Trujillo district containing many examples collected by Dr. Uhle.

SITE E: EARLIER GRAVES

It will be noted that in the foregoing discussion of site E Inca style of pottery, certain graves, especially E1 to E4, have not been referred to. When the pottery from these is put together, it is at once seen to run to forms and patterns quite different from those heretofore described. The prevailing colors are red, white, and black in combination on the same vessel. This is an unusual combination in the Inca E graves. When it does occur, the Inca red is usually of a deep shade—almost maroon—and the white replaced by yellow. Further, the aryballoid jar, the incised collar jar, the bowl with foot and lip, the ribbon-like handle, and the spot or worm pattern are lacking in graves E 1-4. The characteristic types in these graves are the following:

Bevel lip bowls and textile pattern jars.—The height of the bowls is about two-thirds of the diameter, and the opening somewhat less than the height (pl. 11). There is a characteristic heavy lip with

beveled edge. In cross-section it is triangular (figs. 6*a*, *b*). The bowls are fairly large, varying from 10 or 12 to 30 and 35 cm. in diameter, and heavy. The jars have spherical or conoid bodies and rather wide necks with slight flare. They are usually two-handled, either at the widest part of the body or at the junction of body and neck (pl. 12).

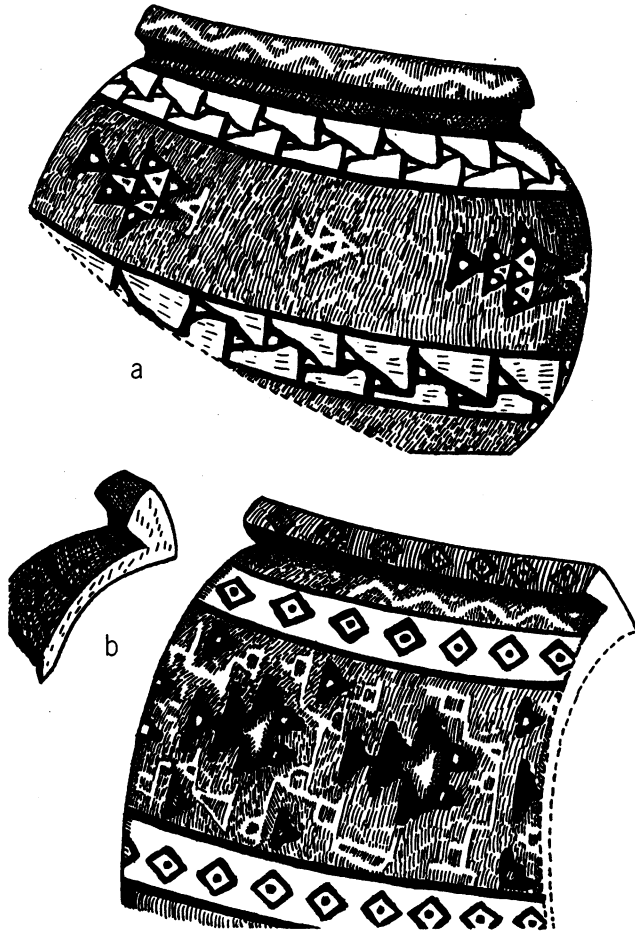


Fig. 6.—Late Chincha I bevel-lip bowl fragments, showing rim and characteristic patterns ($\times .4$). *a*, E3-3915; *b*, E1-3896.

Both bowls and jars are ornamented in one of two related styles. In both cases the pattern is disposed in a zone just below the beveled lip, or below the neck, extending downward to or nearly to the latitude of greatest diameter of the vessel.

The simpler style has a whitish slip. The ornamented zone is usually delimited below by three narrow stripes; occasionally, by one heavy stripe. Within the zone are disposed a number of separate rhomboids, each cut up into smaller rhomboids or rectangles alternately black and white (pls. 11*c*, 12*a*, *d*).

The second style of ornamentation is red, white, and black. The slip is red. The three thin lines defining the zone are replaced by a band containing a pattern of diamonds or other angular figures. A similar line forms the upper border of the ornamented zone (pl. 11*a*; figs. 6*a*, 1*b*). The zone itself in some cases contains free standing figures (pl. 11*d*; fig. 6*a*); in other cases, a pattern of parallelograms or triangles in black or white or both colors, arranged in diagonal series (pls. 11*a*; 12*b*). The connection between this continuous pattern and the free standing rhomboids of the white bowls is not only aesthetically apparent, but is corroborated by one or two specimens in which the continuous pattern is broken two or three times to allow panels which remain clear except for a single free standing rhomboid (pl. 11*b*).

Several of the rhomboids and continuous patterns suggest strongly that they may be conventionalized bird or fish designs (pls. 11*a*, *b*; 12*b*, *d*; especially figs. 6*a*, *b*). All of them, at any rate, produce a rather definite suggestion of a textile effect, as was noted by Dr. Uhle. Several of the continuous patterns might well have been copied directly from a fabric onto the bowl, and there is not one, either of the continuous patterns or the rhomboids, but could be produced practically without modification by a skilful weaver.

This is a distinctive type of ornamentation as well as of vessel, and in the main is evidently peculiar to the Chincha district. It does find analogues in a type of ware collected by Dr. Uhle in the Ica area to the south. In this Ica ware the textile effect is marked, the colors are similar, and the bevel-lip also occurs.

Somewhat allied to the white bevel-lip bowls are white jars like E3-3913 (pl. 12*e*); and allied to these in turn, in pattern and general form, are red jars such as E1-3897 (fig. 7*b*). In such specimens the bordered zone contains a pattern of radiating bars, sometimes tipped with circles, with the pattern effect of a necklace.

A variant type has the jar neck crudely modeled into a human face (C9-3789 and C6-3756, pl. 12*c*, *d*).

“*Tear-flasks.*”—Graves E 1-4 contain about as large a proportion of black-ware as the E graves of Inca type. Distinctive is a small, slender jar with two side handles: E1-3903 (fig. 8*a*), E2-3907*c*. The

latter piece, the largest of its kind, is not quite 18 cm. tall and 8 cm. in diameter. One taken from the same grave, 3907e, is a scant 9 cm. high and 3.5 cm. in diameter, not counting the handles. These little black jars somewhat recall in general profile the so-called "tear flasks" made of glass in the ancient Mediterranean region.

There are several other forms of black-ware in graves E 1-4, but none of them is represented by more than one or two examples. Not one of them, it should be added, shows close similarity to any black vessel—or, for that matter, colored vessel—taken from the Inca period graves of site E.

Period represented.—It is thus clear that graves E 1-4 contain pottery of quite markedly distinct types from the series of graves associated with E 13. Their contents represent a different fashion. The natural presumption is that they represent also a separate period. The E 13 set of graves being definitely Inca, it is natural to look upon graves E 1-4 as burials made at an earlier time, before specific Inca influences had become operative in the Chincha district; in other words, they represent a local culture developed previously to the Inca conquest. This conclusion, of course, does not necessarily indicate any great antiquity for the local ware.

As to a designation for the style or culture represented by E 1-4, either the term "Late Chincha" or "Pre-Inca-Chincha," may be employed. The former seems justified on the ground that a cemetery containing Inca graves would not be likely to be very ancient in any of its portions; the latter is noncommittal except as to the one fact of priority to Inca.

SITE C: GRAVES OF EARLIER E TYPE

Examination of the pottery from site C immediately reveals that the ware from graves 6-7, 9-16, is identical with the Late Chincha ware from E 1-4. All the forms from the textile patterned bevel-lip bowl to the little black "tear flask" occur. It is unnecessary to describe individual pieces: the illustrations speak for themselves. The C graves of this period, however, yield more numerous examples of two types that happen to be too sparsely represented in the E graves to have made their establishment justifiable in that connection.

One of these types is a jar with a bulge or swollen neck or double constriction. This occurs in two black vessels, C13-3812 (fig. 7*d*) and C14-3818 (fig. 7*c*); and in a less marked form in C9-3788 (pl. 12*a*), a white jar having a zoned diamond pattern. The parallel from site E is E3-3917 (pl. 12*f*), a black jar in which the lower portion of the neck is expanded into a modeled bird.

The second type which site C adds to the Late Chincha list is a small flattened jar with handles for suspension. It has much the shape of the lens-shaped metal canteens used in our own civilization. This type is represented by a red specimen about 17 cm. in height (C6-3757g), and a smaller unpolished red specimen 10 cm. high (C13-3812b). These are paralleled by a pair of polished blackware specimens from E 1 (3903f, fig. 8b), 8.5 cm. tall.

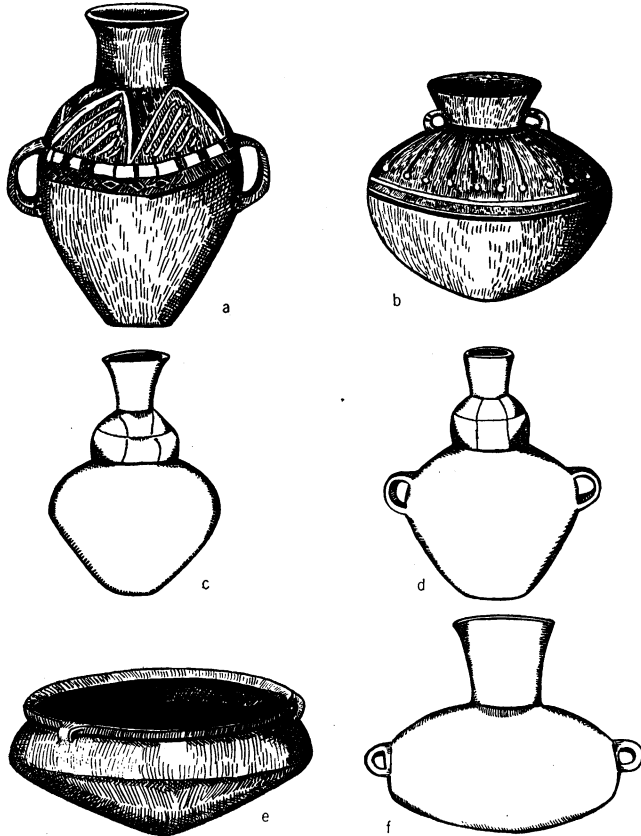


Fig. 7.—Late Chincha I jars and bowl. *a*, E2-3907a; *b*, E1-3897; *c*, C14-3818; *d*, C13-3812; *e*, E1-3903d; *f*, E2-3907b. (*a*, *e*, $\times .25$; *b*, *c*, *d*, *f*, $\times .17$.)

SITE C: GRAVES DIFFERENT FROM EARLIER E

It will be noted that the Late Chincha pottery at site C is all from graves bearing higher numbers, just as at E the Inca type pottery was obtained from the higher numbered graves. Much as the low-numbered E graves yielded the distinctive Late Chincha ware, so the low-numbered C graves 1-5 hold a ware which seems to differ from this as well as from the Inca type. These graves, C 1-5, do not con-

tain a single bevel-lip bowl except for one small unornamented jar, C4-3734b; and the lip of this has not the fully developed bevel-lip. There are two jars which slightly suggest the jars from E 1-4 and C 6-16, chiefly in the fact that the decoration is confined to the upper portion.

Of these, C5-3762 is 33 cm. high and oval in cross-section. Its one handle for suspension is worked to resemble the tail of an animal, and opposite is the modeled head of an animal, projecting sufficiently to hold a cord. An oval area between the handle and knob, and surrounding the neck of the jar, is painted in a black-and-red pattern suggestive of the markings of a jaguar, which animal the whole decoration of the vessel appears intended to represent. This pattern, however,

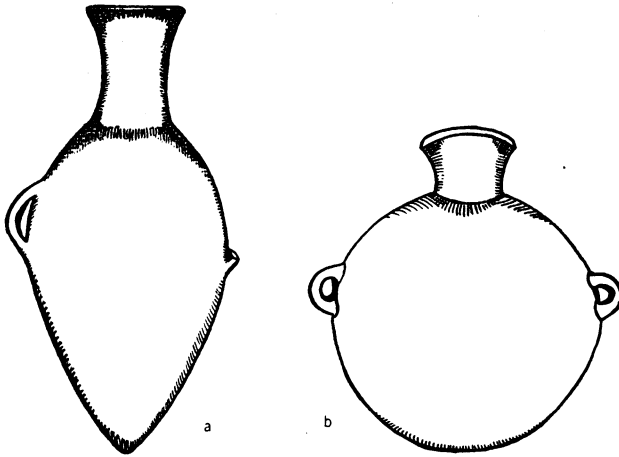


Fig. 8.—Late Chincha I small blackware jars ($\times .5$). *a*, E1-3903; *b*, E1-3903f.

contains wavy lines and dots, and therefore bears some resemblance to the worm pattern of Inca type. The design is too much scaled away to make its adequate photographic representation feasible.

The other jar is also from C 5 (3751-1). It has a nearly spherical body 16 cm. in diameter, and a diagonal pattern on its upper surface. This pattern, which was painted on rather thinly, carries a suggestion of the diagonal pattern of the earlier bowls and jars, and also of Ica ware.

Most characteristic of the present set of graves C 1-5 are three small black bowls, presumably for holding yarn, C4-3731 (pl. 12*c*), C4-3732, (pl. 12*d*), and C5-3736. These bowls range from 14.5 to 8 cm. in diameter, are slightly less than half as high, and are shouldered, the mouth being almost exactly half the maximum diameter. There is no lip or neck, the inward turned mouth simply coming to an edge. The ware is fine, light, and highly polished. In all three pieces the upper surface surrounding the mouth is incised with pat-

terns. In two of the pieces these include recognizable birds, as well as trapezoid panels containing a geometric design. The pattern of the third piece is wholly geometric. All three bowls carry on their upper surfaces a shell modeled in low relief.

These three bowls find their nearest analogue in E18-4053 (fig. 5) from an Inca grave. This piece is also black and geometrically incised, but larger and more crudely made. The opening is relatively larger (122 mm. as against 195 mm. diameter of the body), and there is a lip (11 mm. wide). The C 4 and C 5 bowls have an almost horizontal shoulder, whereas the corresponding part of the E 18 piece slants about 50 degrees away from the horizontal. The incised pattern in E 18 is also different, consisting of a series of squares bisected by pairs of diagonals, the resulting triangles containing a small circle each. The incisions are hasty and irregular. Different as this vessel is from the C 4 and C 5 bowls, it nevertheless comes nearest to them of anything found at Chincha. It may be well to point out, however, that an oval black jar or canteen of Inca age, E 13-4014, bears as sole ornaments two incised bird figures reminiscent of those cut into C5-3736, and two relief-modeled corn-ears somewhat suggestive of the shells in the C 4 and 5 bowls.⁶

Another approximation to Inca type is found in jar C3-3721 (fig. 9a). A small handle springs from the upper part of the body to the neck. The ground color is orange buff. The upper part of the jar is painted red and on it are seven or eight rows of white dots. The red zone is bordered with black, white, and black lines. The firm modeling of the neck and lip is suggestive of the mouths of aryballoid and other Inca type jars, without, however, exactly matching them.

C3-3720 (fig. 9d) is a one-handled asymmetrical jar of squash shape, pointed at one end. It is painted in black, white, and red horizontal stripes from the point to the handle end. A squash, gourd, or melon effect is also observable in the pattern of jars C1-3715 and C2-3719 (fig. 9e). In both these the striations are vertical. In the latter they are both painted and modeled.

The first of these squash-like jars, C3-3720, has an almost identical counterpart, except for its larger size, in E6-3939. In this connection there should also be recalled the previously mentioned squash-like jar E18-4052 (fig. 4c), and the stripings on the cylindrical canteen E13-4017 (fig. 4f).

C 5 also contained two plates with flat edge: 3751, with plain red slip inside, and 3751h with pattern as illustrated (fig. 9f).

In summary, graves C 1-5 must be described as totally lacking in vessels of the pure earlier type; lacking, also, in clear-cut Inca types such as aryballoids; and containing two or three types of their own, such as the incised black bowls and squash jars, which approximate in particular features certain types of Inca vessels.

It is clear, therefore, that graves C 1-5 represent a style which is neither Inca nor the E 1-5 type. The partial Inca suggestions rather favor placing it in close chronological proximity to the pure Inca period, possibly at the time when Inca influences first began to become

⁶ The modeled corn-ear in place of a handle or suspending button is found also in C1-3718a, a neatly made and polished reddish jar without painting or other decoration.

active in Chincha. The style would in that case presumably be intermediate or transitional in time between earlier E and Inca. This position for the style is confirmed by its artifacts other than pottery. Without unduly anticipating the evidence from these, it may be con-



Fig. 9.—Late Chincha II pottery. *a*, C3-3721 ($\times .2$); *b*, F6-4123a ($\times .6$); *c*, C2-3719 ($\times .45$); *d*, C3-3720 ($\times .2$); *e*, F6-4134 ($\times .6$); *f*, C5-3751 ($\times .6$).

venient to introduce here the nomenclature adopted: which is *Late Chincha I* (LCa I) for what has so far been called "earlier E type" or pre-Inca; *Late Chincha II* (LCa II) for the graves C 1-5; and *Inca*.

SITE F

Certain graves from cemetery F are also to be reckoned with the LCaII type. The excavations at this site yielded but little pottery. F 4, however, contained one of the incised black bowls (4102, pl. 13*a*). It is 8 cm. in diameter, 5 cm. high. The bird ornament is lacking, but the panel of geometric figures and the raised shell are present. The incisions are filled with red paint. This bowl still contains thread and cord, evidencing the purpose of the type. It is the only bowl clearly of this type to be excavated at Chincha outside of the group of graves C 1-5.

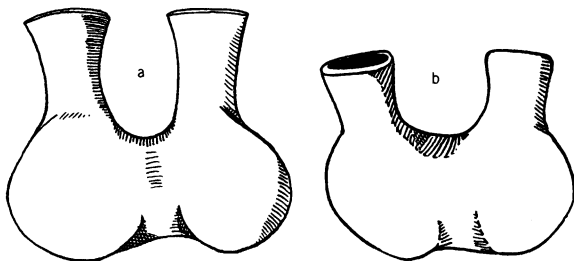


Fig. 10.—Late Chincha II double jarlets. *a*, C5-3751a ($\times 1$); *b*, F6-4123 ($\times .67$).

Another link between F and C 1-5 is found in two minute double jars of reddish or buff unpainted ware. F6-4123 (fig. 10*b*) is two jars united in one, about 4 cm. high, 5 cm. in combined breadth. C5-3751*a* (fig. 10*a*) is a little taller and has the two component vessels less broadly merged, but otherwise is identical.

Graves F 4 and F 6 are connected with each other by evidence other than the resemblances to C 1-5. Graves F 4, 5, 6 all contained bronze headbands about 2 cm. wide. Those from F 4 and F 5 are identical, being embossed with punch marks along the edges; that from F 6 is similar but not embossed. F 4 and F 5 each contained a neckband of plain copper wire. Dr. Uhle describes graves or tombs F 5 and 6 as having an inner connection and a single outside entrance. F 4, 5, and 6 must therefore be regarded as of substantially the same date, and affiliated with the LCa II style.

A few other fragments of pottery from F 6 also rather point to a late period. There is a handle of a black plate, in the shape of a bird head and neck: 4134 (fig. 9*e*). This handle is of a characteristic Inca style—compare with figure 2*h*—

although it does not happen to occur in any of the Inca type pottery from Chincha.⁷ F6-4134e and f (fig. 11a, b) are necks of black jars with incised collars. They clearly are not identical with the incised collar jars from E 13. The necks are larger, the modeling clumsier, the ware cruder. On the other hand, there is an unmistakable leaning toward the jars of incised collar type. Another piece from F 6, 4123a (fig. 9b), resembles the small "tear flasks" in general outline and size, being 9.5 cm. over all. The handles, however, spring from the base of the neck instead of from the body, and the clay is buff instead of black.

F 4 and F 6 also yielded two small jars in human shape. F4-4088 (pl. 13e) is 15 cm. high and of good black pottery. F6-4123 (pl. 13d) is only 9 cm. tall, cruder in modeling, and of uncolored buff ware. While the outlines of these two vessels differ, they represent the same figure. They are alike in attitude, in the delineation of navel and genitals, and in a curious open mantle-like modeling

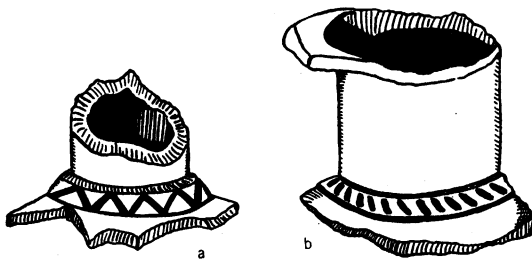


Fig. 11.—Late Chincha II jar necks, incised blackware ($\times .67$). a, F6-4134; b, F6-4139f.

of the breast with a projecting point at the sternum. The ears are unperforated and unornamented. The chin is tilted forward, and the eyes are indicated by an elliptical groove. F4-4088 has an incised pattern of backbone and ribs on the back.

These several pieces from site F, which point both toward the Inca and the LCa I type, tend to confirm the interpretation of the LCa II style as transitional. They further suggest that the time interval between the first and last of the three periods was not an extended one.

Graves F 4-6 may therefore be set down definitely as containing LCa II material. For graves 1-3 from the same site there exists, consequently, some presumption of the same affiliation, although the absence of pottery would render positive assertion unsafe.

⁷ There is one other bird head handle from a black plate in the Chincha collection. It is from grave E 1 (3903c); in other words, was associated with definite LCa I material.

SITE B

Site B, the fourth of those in which Dr. Uhle was able to keep separate the objects found in different burials, contained a series of pottery vessels which at first sight seem rather undistinctive, but which in detail affiliate rather closely with the LCa I ware of C and E. Strangely enough, there was not a single entire bowl of the characteristic bevel-lip type in the ten B graves. B 6, however, contained a sherd, 3701*b* (fig. 12*a*), which shows the lip in its typical form, and enough of the pattern zone to leave no doubt.

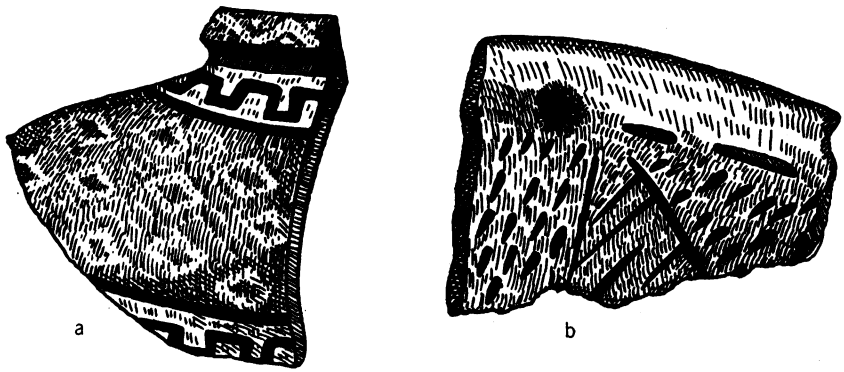


Fig. 12.—Sherds from site B ($\times .67$). *a*, B6-3701*b*; *b*, B6-3701*c*.

There are also several jars in the collection which resemble LCa I jars. B10-3712, for instance, carries a typical pattern of zoned birds and textile effect. B5-3666 shows a conventionalized bird or flat fish. B7-3702 is without textile-like pattern, but its two black and two red quadrilaterals are arranged in the proper zone below the neck, and a white slip forms the ground color of the vessel except at the very bottom. B3-3644, a small two-handled jar, has a diagonal textile pattern in the appropriate zone. B5-3667 is a white jar with a pattern mostly defaced, but enough remaining to show that it bore the design of E1-3897 carried out in black on a white slip, thus resembling E3-3913.

B 5 contained three typical black "tear-flasks": another link with LCa I. B8-3705 is also a "tear-flask."

B6-3694 may be construed as a swollen neck jar.

B6-3695 and 3696 are miniature black barrel-shaped jars, respectively 7 and 11 cm. long in body. They exactly correspond to E2-3907*b*, which is 10 cm. long. All three are characterized by having small handles for suspension coming out of the ends of the cylinder. In this they differ from the colored and striped cylindrical canteen E13-4017 described above as of Inca type. There is the further difference that the Inca piece is of sufficient size to have been of use, whereas the three LCa I pieces from B and E are obviously toys or miniatures for funerary purposes.

None of the remaining vessels from B seem of positive significance for their resemblance to finds from other sites. B5-3670 and 3671 are polished black pots with definite flat bottom and a slight lip, although this is not brought to the clear-cut triangular development of the true bevel-lip. B6-3697 (fig. 13*a*) is a polished black bowl, flat-bottomed, and with the sides rising at a sharp angle and but moderate flare. The shape is unique in the Chincha collection. The piece is of further interest in that it had broken before burial and had been mended by the boring of holes at opposite sides of the break, through which, no doubt, lashings passed. B4-3648 is a bowl with nearly vertical sides curving gradually into the flat bottom. The ware is rather thin, and its edge sharp. The natural reddish paste has been covered with a white slip over the sides. B8-3704 (fig. 13*b*) is a

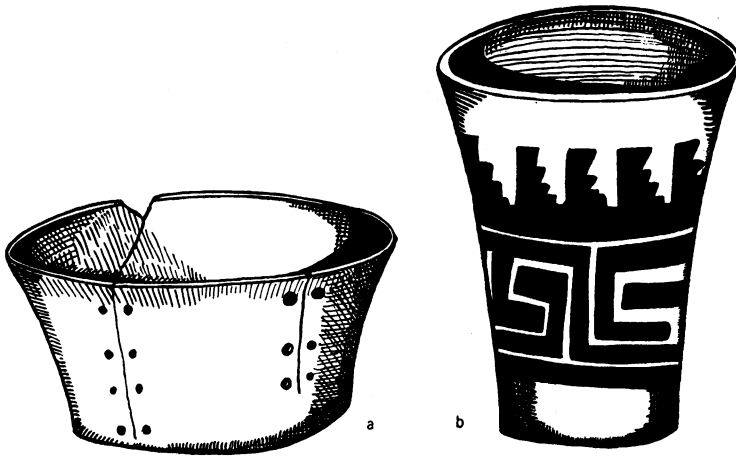


Fig. 13.—Pottery from site B. *a*, B6-3697 ($\times .25$; blackware, mended); *b*, B8-3704 ($\times .38$).

flaring cylindrical cup or goblet, 12 cm. tall, without handles, and with an interlocking fret pattern. This is also unique for Chincha, although a Cuzco piece, 8007 (fig. 2*d*), has the same shape. Finally, there might be mentioned a sherd, B6-3701*c* (fig. 12*b*), the fragment of the edge of a vessel containing a bored perforation. The outside is unpainted red; the inside, incised with crude impressions.

The following B graves may therefore be designated as containing vessels with LCa I affiliations: graves 3, 5, 6, 7, 8, and 10. As these also contained most of the unique specimens, it would appear that no special significance as to period can be attached to the latter. Graves B 1, 2, 4, 9 presumably form part of the same group, although their pottery content is too limited and undistinctive to allow positiveness. At any rate, they do not contain any ware definitely alignable with a style other than LCa I.

SITES A AND D

Site A yielded virtually no pottery, and site D only a half-dozen pieces. At neither of these sites was Dr. Uhle able to designate his finds according to grave associations, probably on account of previous rifling.

D-3838 is a typical bevel-lip bowl. D-3836 and 3837 are crudely made and very crudely painted jars which, however, find a counterpart in a few almost equally crudely decorated pieces of established LCa I provenience, such as E4-3931 and C11-3807. On the other hand, D-3839 is a shallow bowl or plate with a flat handle and, opposite this, two small points or tongues extending out from the rim in a fashion characteristic of Inca ware—as for instance in two sherds, 4075c, found by Dr. Uhle near site E, and in several plates, 8002, 8004 (fig. 2*h*, *i*) collected by him in the Cuzco district. D-3839e is a spherical jar or pot of inferior ware painted over with a dark red slip. There is no pattern, but two horizontal rows of slight knobs or bosses; and in place of handles, two undulating lines in relief, suggestive of the relief snake on the red aryballoid jar E11-3960 (fig. 3*c*). This and the preceding piece accordingly rather point to Inca affiliations for site D, and the three first mentioned to LCa I affiliations.

SUMMARY

In review, the graves from Chincha sites B, C, E, and F, can be assigned to the three following culture styles or periods:

Inca, and at period of the Spanish conquest: E 5, 7, 8, 9, 11, 13, 14, 15, and probably E 12, 18.

Late Chincha II: C 1, 2, 3, 4, 5; F 4, 5, 6; probably F 1, 2, 3; and possibly E 6.

Late Chincha I: E 1, 2, 3, 4; C 6, 7, 9, 10, 11, 12, 13, 14, 15, 16; very probably B 3, 5, 6, 7, 8, 10; presumably B 1, 2, 4, 9; and possibly E 10.

POTTERY FIGURES

Characteristic of Chincha are white pottery figures somewhat similar to those which occur at Chancay, but smaller, flattish, and with a character of their own (pl. 14, upper row). They range from 10 to something over 22 cm. in height and are not quite half so broad. The greatest width is usually at the ears, which are perforated as if for suspension. The hands are laid on the stomach, not quite in contact. The body is unclad and always female. The top of the head is cut off squarely. The uppermost portion is set off by a groove, or is somewhat depressed. The nose projects sharply and

tends to be hawk-like. The pottery is red, covered with a whitish slip, which however has often partly disintegrated. Only one of the fifteen specimens bears any color. This (B8-3708, pl. 14, upper right) has the face and neck painted in red and black.

These figurines occur in half a dozen LCa I graves; viz., E 1; E 9, 14; B 5, 6, 8.

A single LCa II grave, E 6, contained one of these figurines (E6-3940, pl. 14, middle). It is clearly of the general type, but differs in having the top of the head somewhat rounded and not marked off by a depression. The general contours are rounder than in the LCa I figures, and the modeling of the toes is more hasty. The only LCa I figure which approaches it is C14-3831, which is of about the same size (10 cm.) and also has the rounded head.

Grave E 6 contained another pottery figurine, also female, 13 cm. high (3941, pl. 14, lower right). This, however, represents a different style. It is of unslipped dull reddish pottery. The hands are brought up to the breast. There are no actual perforations through the ears, but ear plugs are modeled. A necklace is also indicated. The eyes are almond-shaped and consist of an outer ridge, a depression, and an inner raised portion. The eyes in the white LCa I figurines are simply a round crater-like depression in a slightly raised area more or less triangular in outline.

The Inca graves contain no pottery figurines. The only figure is one carved in wood, about 5 cm. high (3976, pl. 14, below).

It is thus clear that the white figurines of Chincha are characteristic of the LCa I graves, are practically lacking from LCa II graves, and wholly absent from Inca ones.

CHALK

Several graves contained lumps of chalk or similar white substance, the use of which is unknown. Five of the six graves are LCa I: E 2; C 9; C 14; B 4; B 8. The sixth grave that contained chalk (C 1) is LCa II. The occurrence of this material, the use of which remains conjectural, is therefore parallel to the occurrence of the white pottery figurines.

SHELL AND BEADS

Entire shells in LCa I graves consist of one cardium shell (B8-3710k), one mytilus shell each in B 4 and B 8, and five mytilus shells in E 3. Of these last, three contained red paint; two are in natural condition. There are no spondylus shells in LCa I graves.

One possible LCa II grave, E 6, contained two rather small spondylus shells.

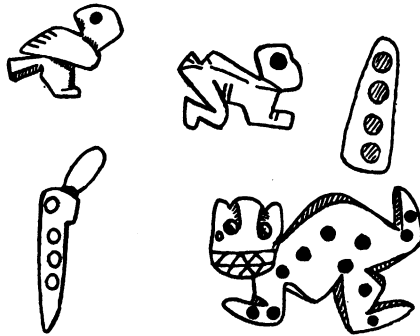


Fig. 14.—Late Chincha II shell ornaments. C3-3725 ($\times .67$).

The Inca graves E 12, 13, 15 contained from two to five spondylus shells each. E 7 contained a pecten; and E 12, a small olive shell and a keyhole limpet.

In beads and necklaces, the LCa and Inca graves contrast as markedly as in their spondylus shell content. The characteristic LCa II ornament would appear to be represented by the necklace C3-3725. A number of the white shell ornaments are in the shape of animals or birds (fig. 14). More are quadrilateral and bored with several holes which were inlaid with green stone. Several of the pendants still retain one or more of the insets.

By contrast, the Inca graves contain pendants of spondylus which are regularly rounded oblong, never in the form of animals, and without inlay. Such are E13-3980, 3981 (pl. 15, below), 3983, 3984, 4006; E12-3965a.

Also characteristic of Inca graves are fine, evenly-rolled beads of pink spondylus, white shell, violet shell, and black material. In some cases these average barely 2 mm. in diameter and 1 mm. in thickness. The finest beads come in short loops, several of which are grouped together. On each loop the beads sometimes form a pattern of three colors. Such beads may have served as ear ornaments. E13-3975 is an example of extreme fineness. E13-3975b (pl. 15, above) has the individual spondylus beads almost equally fine. The ends of the strings are tipped with green glass beads. These are larger, coarser, and far less evenly regular than the spondylus beads of native manufacture. E 7, 11, 12, 14, 15, and 18 contained loops of small beads similar to those in E 13. The black beads preponderate, but pink and white ones are introduced.

As compared with the high development of the bead-making art in the Inca period, the LCa I and II graves are entirely without small and regularly made beads except for E6-3943c and E10-3957a. On the basis of their pottery—one vessel each—these two graves were tentatively assigned respectively to LCa II and LCa I. The bead work would tend to throw some doubt on this finding. Further, the E 10 string of beads was associated with three large triangular spondylus pendants, and two complete spondylus shells (3957e-f) were found in E 6.

E3-3930d is an assemblage of very small beads of various sizes and materials from a hitherto undoubted LCa I grave. There is a spondylus pendant cut into step shape. The beads include three or four blue or green ones that look as though they might be glass. Too much importance need not, however, be attached to this occurrence of a European material in a LCa I grave because the beads in this lot were found loose, as compared with those from pure Inca graves, which regularly remain on the original string. There might be considerable chance for small beads to roll down into a grave, especially in excavation in sandy soil.

C3-3743, from a LCa II grave, is a mass of beads of shell, stone, pottery, and metal which, when re-strung, assemble to about enough length to enclose a neck. They are of a great variety of size and shape, as well as material. These beads may be characteristic of Chincha bead work previous to the pure Inca influence.

To sum up, spondylus and fine beads are characteristic of the Inca graves. They are virtually lacking from both LCa I and II graves. Most of the few occurrences of spondylus or fine beads in graves of these affiliations are from E 10 and E 6, which have been tentatively referred to these periods on the basis of slight pottery content. Their attribution is therefore now further weakened. Evidently, the trade in spondylus, which was brought from the far north, did not attain considerable proportions until the Inca period. Accompanying it was a much higher perfection of skill in making small beads.

TEXTILE APPARATUS

BASKETS AND MATS

Rectangular twilled work baskets, with lid (pl. 19), used to hold spindles, yarn, and sewing and weaving apparatus, are found without perceptible difference of shape or style in graves of all three affiliations, as C 9; F 5; E 14, 15, 18.

Another device for holding such materials is a mat of reeds 25 to 40 cm. long, sewn through. The spindles, etc., were simply rolled up in these mats. They occur in F 5, E 10, and E 14: in other words, in Inca and LCa II graves.

SPINDLES AND WHORLS

While the containers remain alike, spindles and spindle whorls from LCa I and Inca graves differ observably. The LCa I spindle averages a little less in length—20 to 25 cm. as opposed to 25 to 30 cm.—is definitely slenderer, and of a wood that almost suggests a spine. It is painted little or not at all. The whorl is of black pottery,



Fig. 15.—Patterns on late type of spindles. F5-4122f (× 1; black; whitish; red, hatching to right; blue, hatching to left; unpainted, vertical hatching).

usually polished, more or less spherical, and sometimes ornamented with an incised pattern which may be filled in with white and red (pl. 16; pl. 18, right).

The Inca spindle is not only longer but thicker, and normally has some 7 or 8 cm. of its middle length painted, sometimes in as many as five colors: yellow, green or blue, white, black, and red. The Inca spindle whorls appear to be made of very poorly baked pottery,

unpolished and not incised. A number of them have split or crumbled off the spindle. The whorl shapes are variable: conical, semi-cylindrical, lenticular; rarely spherical (pl. 17).

This difference is consistently maintained except that LCa I grave B 8 contains three painted spindles, one of them with a spherical but soft paste whorl half of which has broken away while the remainder is still attached to the spindle. Grave E 10, tentatively put with LCa I because of its pottery, but showing Inca affiliations in its shell, again associates with Inca in the present connection, containing five painted spindles of Inca type and proportions.

Of LCa II graves, F 5 and F 6 both contained Inca spindles and whorls. The painting on those from F 5 is beautifully preserved (pl. 18, left; fig. 15). The F 6 spindles have not lasted so well, but show remains of similar patterning. Grave C 5 contained several spindles (3751m) which are badly decayed, but were painted in Inca style. It also shows three slender spindles (3751v) without trace of paint, and definitely resembling those from pure LCa I graves such as B 4. One of these still bears a typical LCa I whorl: hard, black, polished pottery, nearly spherical and rather large, 21 mm. in diameter.

Inca graves contained another type of spindle, which tapers toward the top only, is thickest a few millimeters from the bottom, and there comes to a sudden point. These spindles are unpainted, and only one has been found with a whorl on it (E18-4056, pl. 18, middle). They occur in E 12, 14, 18; they have not been observed in LCa I graves.

LOOM IMPLEMENTS

Weaving swords average definitely larger in LCa I than in Inca graves. The largest Inca sword is only half the length of the largest LCa I one, and is surpassed by several of that provenience. The two series run as follows:

Inca	LCa I
62.5 cm.	122.4 cm.
60.8	109.2
51.8	91.
46.4	81.9
45.	76.4
40.5	60.
38.	55.5
37.	45.4
35.9	34.8
34.8	25.5
31.3	

There is only one sword from a LCa II grave (F6-4133), 29.5 cm. in length.

Eyeless, knob-ended needles, 25 to 40 cm. in length, probably serving to carry weft through fabric, were found in graves of all three affiliations.

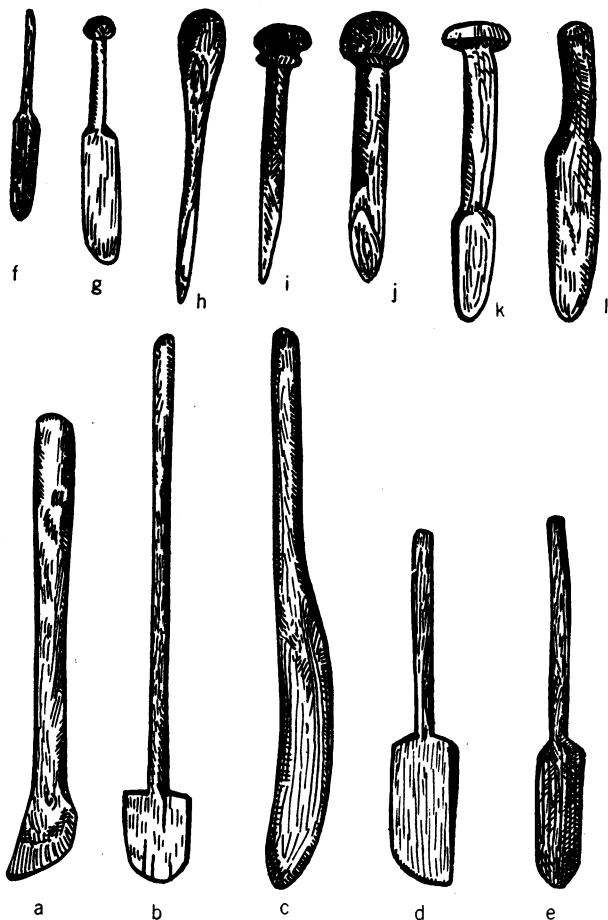


Fig. 16.—Wooden implements of various periods. Probably serving agricultural uses. *a*, E4-3935 (72 cm.); *b*, C5-3755 (84 cm.); *c*, C14-3826 (85 cm.); *d*, C5-3754 (48 cm.); *e*, F4-4100 (49 cm.); *f*, C9-3785 (21 cm.); *g*, C13-3813 (28 cm.); *h*, B-3703e (30 cm.); *i*, F2-4082a (30 cm.); *j*, C7-3776h (29 cm.); *k*, C5-3740 (37 cm.); *l*, F4-4100a (38 cm.).

WOODEN IMPLEMENTS OF DOUBTFUL USE

Wooden pegs or stakes, some a fraction of a centimeter in diameter, others up to 2 and 3 cm. through, and varying in length from 25 to 50 cm., occur both in LCa I (E 4) and Inca graves (E 12, E 15). Their use is unknown. They may have been employed in textile work,

but their evenness of length and diameter suggests some other end, as if they might have been used in a game. Three other types of wooden implements occur in LCa I and II graves.

The first of these (fig. 16*g, h, i, j, k*) is a wooden object 28 to 37 cm. long, with a round head or knob. The other end is sometimes sharpened to a point, but is always flattened.

The second type lacks the knob and has a more definite blade. Some of these, like F4-4100a, c (fig. 16*l, e*), are about 40 to 50 cm. long, and might have served as small agricultural implements. Others, such as C9-3785 (fig. 16*f*) and C5-3753, are little over 20 cm. in length, and slender, suggesting spatulas.

The third type seems most probably an agricultural implement. Two from an LCa II grave, C5-3754 (fig. 16*d*, 48 cm.), and C5-3755 (fig. 16*b*, 84 cm.), have a definite blade. E4-3935 (fig. 16*a*, 72 cm.) has the cutting edge but little wider than the handle. C14-3826 (fig. 16*c*, 85 cm.) has the blade extending nearly half the total length, but narrow and undefined. The surface of the wood is badly decayed, but so far as its condition allows judgment it would seem that this blade was more or less edged along one side, as well as at the end. Dr. Uhle reported the piece as a "wooden saber." It would have made an effective weapon, but might also have served usefully as a weed cutter.

Except perhaps for the few objects in the last group, there is no perceptible difference between the wooden tools from LCa I and LCa II graves. Their absence from Inca graves may be one of the accidents of small series, but again may be significant.

TEXTILES

An interesting collection of textiles was obtained by Dr. Uhle in Chincha, but superficially it fails to reveal anything outstanding as to periodic differences. The great majority of pieces—practically all those of any size—are from Inca graves. There are from six to eight whole and fragmentary textiles each from LCa I and LCa II graves. It seems best to reserve the discussion of them until they can be examined exhaustively in comparison with larger series of textiles from other periods or localities.

"Kilim" technique applied to a design of human figures in border occurs in Inca specimen E13-3970 and in LCa I E3-4069.

Most of the Inca and LCa II girdles are broad—from 7 to 12 cm. The only LCa I girdle, E3-3919, is 3 cm. broad. No conclusion is possible, however, because of an Inca and a LCa II girdle (E8-3948, F5-4121) which are only 3 and 4 cm. wide and resemble the LCa I girdle both in color and in pattern.

CALABASHES

Gourds or calabashes were used in the Inca period to hold yarn and cotton. Mostly they are in the shape of small bowls, unornamented. Such occur in E 9, 11, 14, 15, and 18. Grave E 13 contained two larger calabashes, with wool, cotton, and thread in them.



Fig. 17.—Pattern on Inca period calabash, burnt in. E13-3978 ($\times .33$).

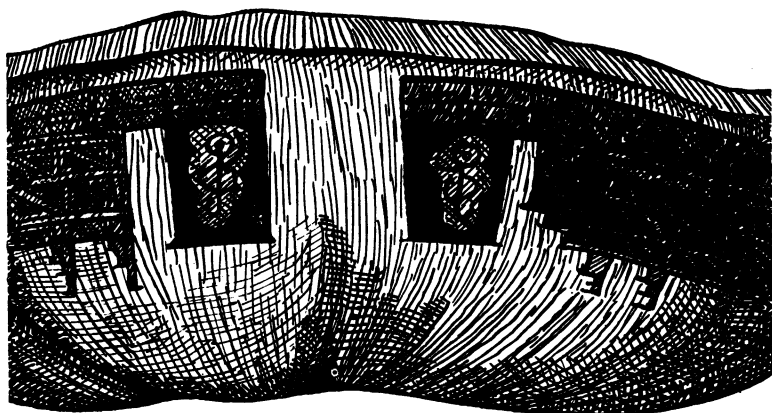


Fig. 18.—Pattern on Late Chincha I calabash, burnt in. E3-3929 ($\times .75$).

These are open bowls 20 to 22 cm. in diameter, patterned on the outer or under side, apparently by light burning. The design on 3979 is geometrical; on 3978 (fig. 17), semi-realistic, but with a use of round lines which suggest Spanish influence upon an old native pattern. Compare also C9-3804o (pl. 14, lower left).

The LCa II graves are without calabashes.

The LCa I graves contained a few small gourds apparently for holding cotton (B5-3685, B3-3646, B4-3656a-b). These are all jar-shaped, as opposed to the bowl-shaped forms which predominate in Inca graves. Grave E3 contained ten large flat calabash bowls with a black, incised, probably burnt pattern. This varies from vessel to vessel, but runs along similar lines in all the specimens. Its continuity is always broken at two opposite points of the circumference

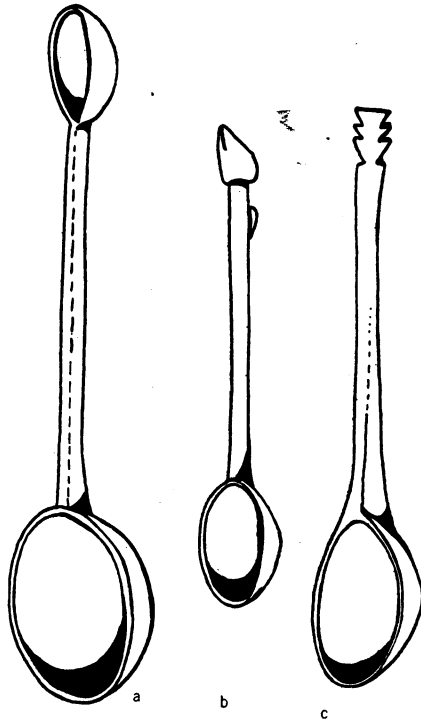


Fig. 19.—Wooden spoons. Late Chincha II and Inca. *a*, C5-3739 (26 cm.); *b*, *c*, E18-4056 (15 cm., 18 cm.).

(fig. 18). These calabashes range from 18 to 30 cm. in diameter. Smaller bowls are B2-3723, 13 cm. in diameter, and C9-3804o, broken. These are also ornamented by pyrography: the piece from B2 with an alternating series of geometrical ornaments and birds; the one from C9 with a curvilinear design that at first glance seems quite unaboriginal, but appears to resolve into a conventionalized bird.

LCa I and Inca seem fairly differentiated as regards their calabash vessels.

SPOONS AND BALANCES

Of wooden spoons there are four from two Inca graves, E 14 and E 18 (fig. 19*b, c*). Three of these have a simple geometric carving at the end of the handle. There are no spoons from LCa I graves. One LCa II grave contains a spoon, C5-3739 (fig. 19*a*); this differs from the Inca spoons in bearing a second, smaller bowl at the end of the handle.

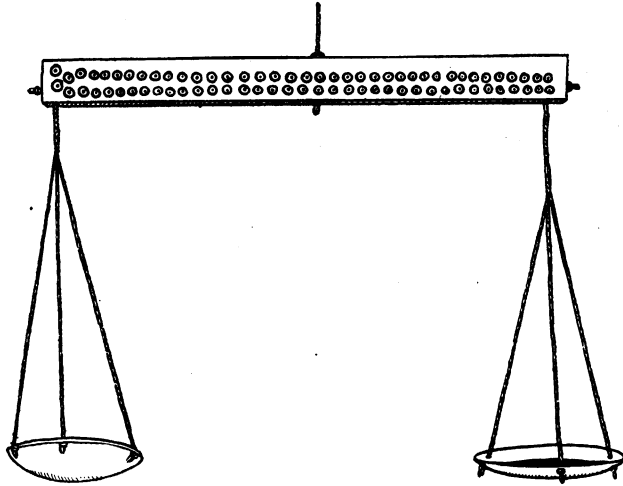


Fig. 20.—Complete balance. A-3622 ($\times .5$).

Most of the balances obtained by Dr. Uhle for the University were found at Chincha. In most instances the beam alone is preserved, although in several specimens there are remnants of the middle suspending cord and of the cords which extend from the ends of the beam to the scale pans. One perfect specimen with copper pans, 3622 (fig. 20), was found by him at site A. This still balances. Chincha beams are of bone or of heavy close-grained black wood. About half are ornamented, always with groups of small circles (fig. 21). These incised circles contain a small central hole much as if they had been bored with a bit.

The distribution of balance beams is as follows:

LCa I: Five specimens from three graves: E 1, C 9, B 5 (fig. 21*f*).

LCa II: Eleven specimens from six graves: C 1, 3, 5; E 6; F 4, 5; or, with inclusion of F 1, 2, fifteen specimens from eight graves (fig. 21*b-d*).

Inca: One small specimen only: E7-3945e (fig. 21*a*).⁸

As the Inca graves in general were the richest in specimens and the LCa II graves contained the smallest number of objects, the fact that the number of balances is in the reverse proportion may be significant. It may be that the balance was in use in the LCa I period, became more abundant in LCa II, but failed to take foothold among the Incas or Incaized population of Chincha.⁸

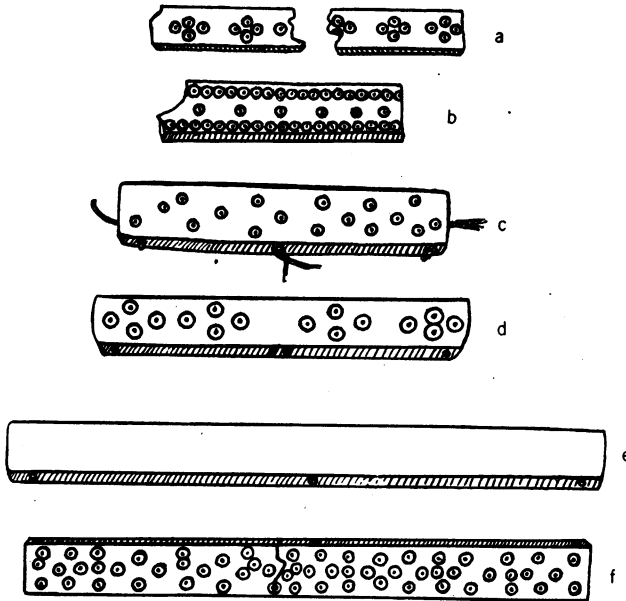


Fig. 21.—Balance beams, various periods. Inca: *a*, E7-3945c; Late Chincha II: *b*, *c*, F5-4109; *d*, C1-3717; *e*, C1-3718; Late Chincha I: *f*, B5-3682. ($\times .6$)

OBJECTS OF METAL

TWEEZERS

Tweezers, in whole or in recognizable fragments, occur to the number of more than fifty in the Chincha collection. They vary in frequency. Grave C 5 contained 21; at site B they were unrepresented. Their metal is various: silver; alloy of silver and copper; a mixture of silver and copper which looks as if it had been beaten out of nuggets or veins of the two native metals occurring in associa-

⁸ The proportion assignable to the three periods may be slightly altered if grave E 6, to which specimen 3943 belongs, is assigned to Inca instead of LCa II.

tion; yellowish bronze; and what appears to be pure copper. The metallurgical aspects are deferred for subsequent separate consideration.

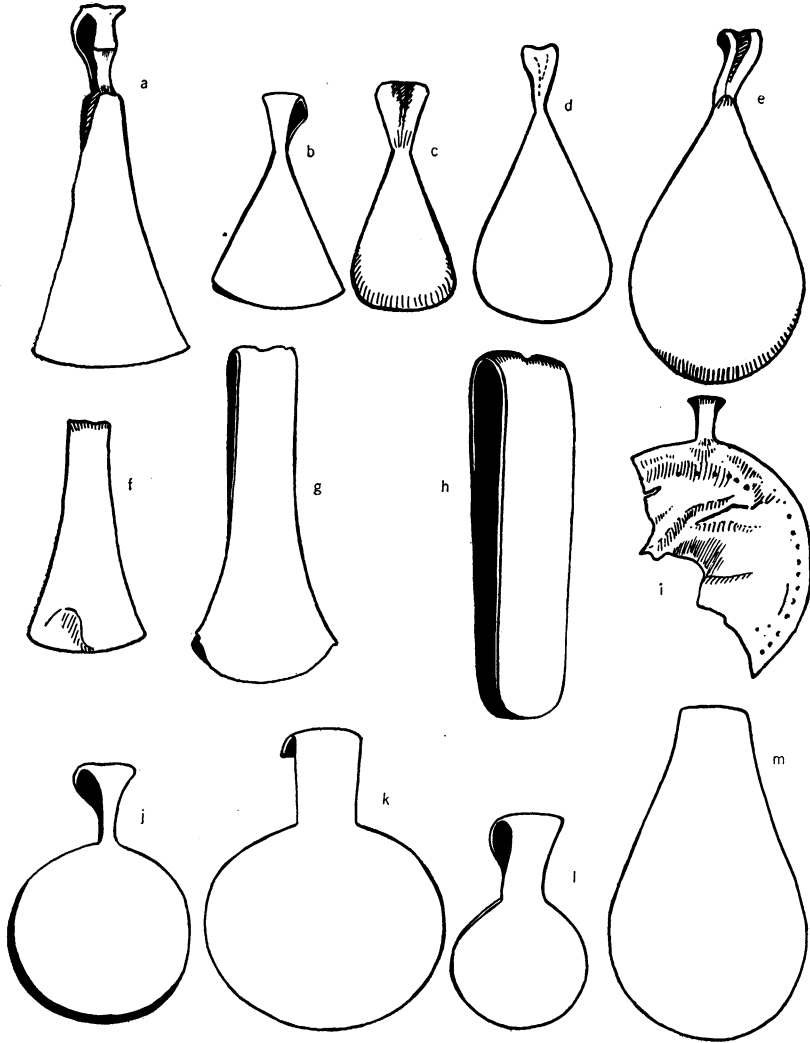


Fig. 22.—Types of tweezers, various periods and sites. Type 1: *a*, C5-3742. Type 2: *b*, E10-3957. Type 3: *c*, C5-3742. Type 4: *d*, E10-3957h; *e*, C5-3742. Type 5, *f*, C5-3742; *g*, F6-4130. Type 6: *h*, F1-4079. Type 7: *i*, C5-3742; *j*, E12(?)—3966a. Type 8: *k*, F1-3903; *l*, C7-3775. Type 9: *m*, F5-4106a. (× 1.)

The forms also vary. Nine shapes can be recognized, each represented by from 2 to 12 examples (fig. 22*a-m*). These may be grouped in three main classes: triangular, quadrilateral, circular.

About two-thirds of the specimens, however, are more or less intermediate; as, the rounded triangular, type 3; the kite or hourglass-shaped, type 4, which is as it were a hybrid between the triangular and the round; and the flaring quadrilateral, type 5, which approaches the triangular.

The quantity of contained metal also varies. Most varieties are rather thin, even at the spring and especially in the blades. Several of the quadrilaterals are much heavier except at the edge. The heaviest per surface area is type 1 (figs. 22*a*, 23*a*). Here the blades thicken steadily toward the shoulder, then abruptly fall away toward the neck. There is an angular, clean-cut appearance about these

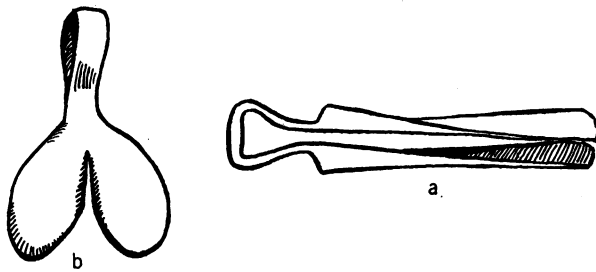


Fig. 23.—Tweezers. *a*, B5-3689 ($\times 1$), odd form; *b*, E13-4007 ($\times 1.33$), side view, showing shoulder.

tweezers which all the others lack. They suggest casting; if hammered, they are genuinely forged, not merely beaten out into a sheet and trimmed.

Another classification is possible on the basis of the spring portion, according as this is relatively narrow and still farther pinched at the neck, or relatively broad and with parallel sides. To the first group belong types 1 to 4, the triangular and kite-shaped (fig. 22*a-e*); to the second, types 5, 6, 8, the quadrilateral and broad-necked small-bladed circular (fig. 22*f-h, k-l*). Types 7 and 9 are intermediate (fig. 22*i, j, m*).

Arrangement of forms according to source gives the results shown in the adjoining table. It is clear that the characteristic Inca form is the shouldered triangular, type 1. All three of the determined Inca types are represented in bronze in grave E 10. Characteristic of LCa I are kite-shaped and small-bladed circular tweezers, types 4 and 8. LCa II graves contain all forms except the last mentioned, but the most prevalent are the rounded triangular, quadrilateral of both shapes, and large-bladed circular, types 3, 5, 6, 7. Nearly all types are represented in LCa II grave C 5.

	TWEEZERS				Total
	Inca Graves	LCa II Graves ⁹	LCa I Graves	Doubtful Graves or mixed Sites	
1. Triangular, with thickened shoulder (fig. 22a).....	3	1	....	....	4
2. Triangular, slightly thickened, no shoulder (fig. 22b).....	1	2	....	....	3
3. Triangular, rounded, approaching types 4 or 5 (fig. 22c).....	....	7	....	....	7
4. Kite or hourglass-shaped, edge round, middle triangular, neck more or less constricted (fig. 22d, e).....	1	4	3	3	11
5. Quadrilateral flaring toward edge, this curved (fig. 22f, g).....	....	7	....	5	12
6. Straight quadrilateral, parallel sides, edge slightly rounded (fig. 22h).....	....	3	....	1	4
7. Large circular blade, small spring, somewhat constricted at neck (fig. 22i, j)....	....	3	....	2	5
8. Small circular blade, spring broad with parallel sides (fig. 22k, l).....	....	....	1	1	2
9. Intermediate between types 4 and 8 (fig. 22m).....	....	4	1	....	5
	$\frac{5}{5}$	$\frac{31}{31}$	$\frac{1}{5^{10}}$	$\frac{12}{12}$	$\frac{53^{10}}{53^{10}}$

On the whole, the periodic differences in tweezer shape are not sharp. The LCa II graves contain both LCa I and Inca forms plus quadrilateral ones peculiar to themselves. The Inca tweezer is triangular, and when characteristic is thickened at the shoulder. The LCa I implement is round or roundish triangular. Circular blades are not necessarily a sign of antiquity, as they occur alongside definitely triangular ones in LCa II graves.

EAR PLUGS

Ear plugs are of the following types:

(1) Fairly small, thick plugs of wood or other material, sometimes covered with a sheet of metal and sometimes uncovered (fig. 24b). The diameter is from 18 to 27 mm., the thickness somewhat less. The grooving on the circumference is shallow (C9-3803a; F3-4083b; F6-4128; E3-3921a-b).

(2) A type of ear plug represented by C3-3733a-b (fig. 24a) about 40 mm. in diameter, with considerable groove, and a rim 3 to 4 mm. in width bearing an incised pattern of dots and lines. This pattern indicates that the plug was either worn hollow as it now appears, or was filled in with some substance which has been lost. That hollow plugs were worn is probable from two wooden specimens: C5-3747, which is oval and carved on the edge, and E14-4027, which is round and uncarved.

⁹ All from C 3 and C 5, except 8 tweezers from F 1-6, viz: 4 of type 5, 3 of type 6, 1 of type 7.

¹⁰ Plus a bifurcated specimen not included in the table (fig. 23b).

(3) Plugs of the general profile and size of the last, but with the hollow covered over on one or both sides with a sheet of metal (fig. 25*a*, *b*, *c*). This disk is sometimes lost, and in other cases it alone remains.

As between these three types, the first is represented in LCa I and II, but has not been encountered in undoubted Inca graves. The second has been found in metal only in LCa I grave C 4, but the wooden forms mentioned are from LCa II and Inca graves. The third form is represented in LCa II and Inca graves.

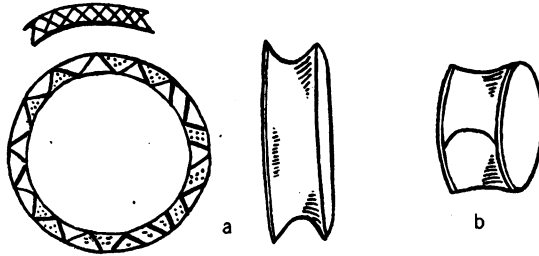


Fig. 24.—Ear plugs. *a*, C4-3733, ring; *b*, F3-4083, silver plated wood. ($\times .67$.)

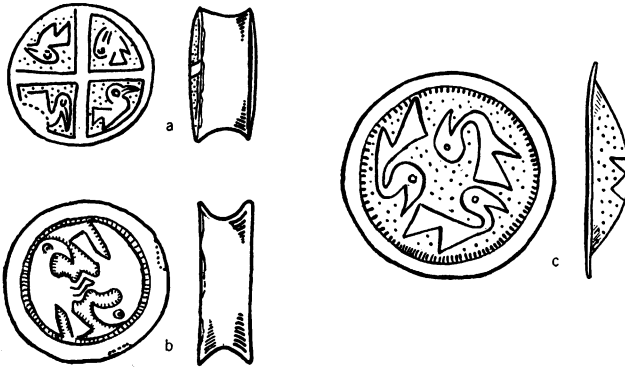


Fig. 25.—Incised ear plugs. *a*, C5-3744; *b*, E13-3986; *c*, F4-4092. ($\times .5$.)

Three pieces of the third type have the disk ornamented. These are C5-3744 (fig. 25*a*), F4-4092 (fig. 25*c*), and E13-3986 (fig. 25*b*), from LCa II and Inca graves. The F 4 piece is aberrant in that its disk, which is 53 mm. in diameter, was attached as a sort of false front to a plug not more than 14 mm. in diameter which passed through the lobe of the ear. One of the pair, whose disk is damaged, still preserves this plug, which is filled with a light white substance; the other has lost the plug, but shows definite marks of the solder attachment. In all three specimens the disk pattern consists of smooth bird figures surrounded by embossing or stippling. The C 5 piece has four birds, the F 4 specimen three, the one from E 13 two.

The normal diameter of ear plugs of types 2 and 3 is around 40 mm. F6-4127 measures 48 mm. in diameter.

"RINGS"

"Rings," mostly of silver and silver alloy, but also of copper and bronze, are numerous in grave E 13. Thirteen complete specimens, besides fragments of several others, were enumerated from this grave by the collector. There are no indubitable rings from LCa graves. C 5 contains two much corroded bands of metal about 10 and 25 mm. in width, bent on themselves with a radius of curvature about that of a finger ring. There is nothing, however, to prove that these pieces were actually such. None of the Inca "rings" show any decoration whatever. Several of them are clearly not rings at all, but small ear plugs, since their diameter is less in the middle than at the edges.

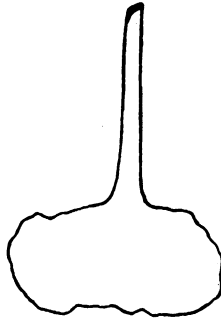


Fig. 26.—Tumi knife. E13-3987. ($\times 5$.)

OTHER OBJECTS OF METAL

There are other types of metallic objects, which however occur so sporadically as to prevent their being positively aligned, on the basis of the Chincha collection alone, with types of pottery or other material. They are mentioned here for such assistance as they may be in the interpretation of similar specimens found at other localities:

From Inca graves:

E13-3987: Copper tumi knife or topu pin (fig. 26).

E13-3990: Silver ornament in shape of a Maltese cross.

E13-3991: Four-cornered bell, and two bells or ornaments in the shape of birds.

E13-3967: Round bottomed bowl of base silver 62 mm. high, 78 mm. across the mouth, and 95 mm. in diameter.

E12:3965: Minute oval bowl of silver 37 mm. long and 20 mm. wide. It is pinched in at the middle, giving it a kidney-shaped effect. A similar larger bowl of copper-silver alloy was obtained by Dr. Uhle at site D. This is 111 mm. long, 83 mm. in maximum width, but only 51 mm. across the constricted middle.

From LCa II graves:

C5-3748: Twisted bar of silver. It is triangular in cross-section and therefore probably not an ear plug. The upper surface is cross-hatched.

C5-3746 may have been the disk of an ear plug. The surface is sieve-like. It appears to have been cast.

C5-3751b: Small bird ornament, solid, but much corroded.

F6-4132: Strip of copper 6 mm. wide, evidently beaten out of a wire, a hook of which remains at one end.

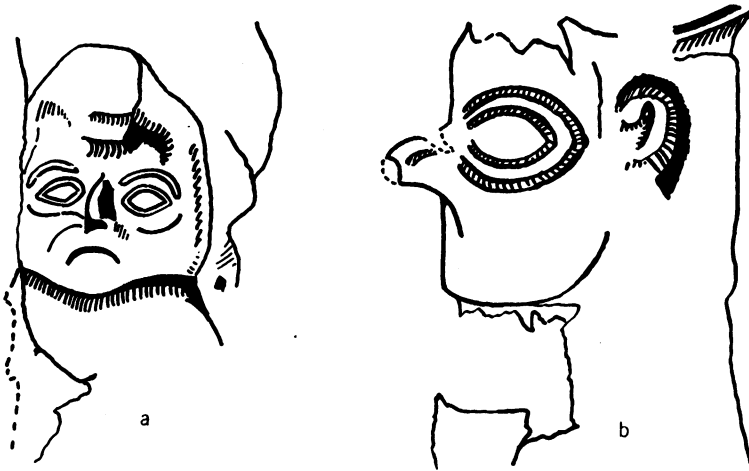


Fig. 27.—Silver goblets bearing faces; fragmentary. E3-3930a, b.

F4-4090 and F5-4105, copper wire neck bands, have been mentioned.

Embossed headbands or necklaces 30+ cm. in length and 1.5 to 3 cm. in width, were found in graves F 4, F 5, and F 6.

From LCa I graves:

C9-3781: Interlocking loops of silver, torn or broken off from whatever they were attached to. The loops seem to have been welded.

E3-3930b and a (fig. 27a, b): Much mutilated goblets or cylindrical cups with embossed hawk-nosed face, the latter fairly well preserved. B8-3710e may be the remains of a similar vessel. The metal in all of these is quite thin except at the lip.

B8-3709 and B5-3687: Small bowls respectively 10 and 7 cm. in diameter and 35 and 14 mm. high, of copper-silver alloy.

	LCa I	LCa II	Inca
POTTERY			
Aryballoid jars	0	0	7
Incised collar jars, black	0	2 approaches	4
Vessel with foot and lid	0	0	1
Ribbon handle	0	0	11
Ribbon-handle, edge up	0	0	2
Insect-worm-spot pattern	0	1 approach	3
Barrel jar	3, end-handles, black	1 approach	1, top-handles, striped
Bevel-lip bowls	15	1 approach	0
Textile pattern on jars and bowls	12	2 approaches	0
Fish or bird rhomboids on white	13	0	0
“Tear flasks,” black	7	1 approach	0
Swollen neck jars	4	0	0
Flat canteen flasks, small	4	0	0
Black yarn bowls, shouldered, incised	0	4	1 approach
Squash jars, striped	0	4	1 (unstriped)
Minute double jars	0	2	0
Flat female figures, pottery	15 white	1 aberrant white, 1 red	1 (wood)
OTHER THAN POTTERY			
Chalk	5 graves	1 grave	0
Whole spondylus shells	0	2	10
Pendants		White with inlay; animal forms	Plain oblong, spondylus
Beads		Various sizes and shapes	Fine, even, cylindrical
Spindles		Like Inca	Longer, thicker, middle painted
Spindle whorls of pottery		Like Inca	Various shapes, badly baked, [no polish]
Thick buttled spindles			3 graves
Weaving swords			Av. 44 cm.
Small gourds for yarn			Bowl shaped
Catalabash bowls, burnt ornament			12
Wooden spoons			4
Balances			1 with 2 bowls
Small thick ear plugs			14
Metal goblets with face			2 graves
Tweezers:			0
Shouldered triangular			60%
Rounded triangular			0
Quadrilateral			23%
Large-bladed round			0
Small-bladed round			10%
Kite shaped			0
All other forms			20%

SUMMARY FOR POTTERY AND NON-POTTERY OBJECTS

It will be seen that examination of the shell, wooden, textile, and metal objects from Chincha amplifies and confirms the segregation into three cultural types made on the basis of the pottery. In each of the two series there are found some fifteen forms as to which the LCa I, LCa II, and Inca graves differ, or as to which at least one of them differs from another—usually the first and the last. The only revision which the non-pottery objects suggest for the classification of graves previously classified from pottery alone, is that graves E 6 and E 10 are Inca, the suggestions of their single pottery vessels notwithstanding. This transposition simplifies the grave affiliations, E 5 to E 15, in fact probably to E 20,¹¹ now constituting an unbroken Inca series.

The table on page 46 shows the principal features in which graves belonging to the three types differ.

LATE CHINCHA II AS A TRANSITION

The thorough distinctness of the LCa I and Inca cultures is evident from this table. The question remains as to the LCa II remains. To set these down as transitional in time between LCa I and Inca is tempting, but may be unwarranted. First of all, there are no forms or traits incisively peculiar to LCa II. The nearest approach to a distinctive type is in the polished, black, incised yarn bowls; and of these there are only four specimens; and these are somewhat resembled by an Inca bowl. Second, LCa II grave F 4 contained a small green glass bead which was attached, with three stone and shell beads, to a silver tweezer, 4093. There can be no doubt of the attribution because the bead is on the original ancient string; and as to the authenticity of the glass, this is vouched for by Professor Andrew C. Lawson, who has been good enough to examine a section of the bead microscopically, and reports it as undoubtedly glass, although of poor quality—as indeed the irregular shape of the bead suggests. With grave F 4 go F 5 and F 6; and this raises the question whether C 1-5 may not also date from the period of the

¹¹ E 16 contained a work basket with spindles of Inca type; E 18, Inca pottery, previously discussed; E 19, a spondylus shell; E 20, oblong spondylus pendants.

Spanish conquest, and consequently all the LCa II material be Inca in time. Thus, one of the four yarn bowls is from F 4. With this of Inca epoch, the somewhat similar Inca bowl would be explained, and the three other bowls in C 1-5 might also be of Inca period.

However, this would be over-simplification. No yarn bowl has yet been found in the same grave with an aryballoid at Chinchu. Further, the graves assigned to LCa II contain only approaches to incised collar jars and the worm pattern; they do not contain pure types of these forms as they occur in aryballoid graves. Further, the LCa II graves contain partial approaches to LCa I forms such as bevel-lips and textile and rhombus patterns. Then there are circumstances like the fading out of pottery figurines and the appearance of spoons in LCa II graves, in comparison with their respective total disappearance and relative abundance in Inca graves; also the LCa II variety in tweezer forms, compared with the inclination of LCa I and Inca tweezers toward rounded and shouldered types respectively. Almost everything in short, were it not for the one glass bead, would point to the LCa II graves representing, not indeed a separate culture with independent traits of its own, but a phase when the LCa I and the Inca cultures had begun to come in contact and the former was beginning to break down and the latter not yet rigorously established.

The most probable explanation seems to be this: First, some or many of Dr. Uhle's "graves" were not literally such, but tombs or family plots in which a number of interments were made. He specifies several bodies for E 13 and F 5 and F 6. Interments in such "graves" may possibly have stretched over two or three generations. Tombs initiated when the local culture first began to waver before Inca influence may in some instances not have been abandoned before the pure Inca types had been introduced, or occasionally (like F 4) not until after Spanish conquest. The pure Inca graves, finally, would be those which were commenced only after thorough Inca dominance and acculturation. If something like this is what happened, there would be explained not only how a LCa II grave came to contain a glass bead, but the fact that no excavated grave contained both LCa I bevel-lips or textile patterns and Inca aryballoids or incised collars.

Secondly, with foreigners in residence and control during the Inca empire, there is every reason to believe that there must have been families or classes of population that differed culturally. Some would be descendants of the old local aristocracy or commoners;

others, officials or soldiers from Cuzco, and their families and offspring; some, even people transplanted temporarily or permanently from other provinces. For a generation or two at least, perhaps longer, the differences between these groups would be maintained, and should find a reflection in the interments, whether these were of individuals or family groups. That is, the pure Inca graves like E 5-20 might represent the cemetery of the Cuzco or Cuzcoized element in the population, and the LCa II graves like F 4-6 be the more or less contemporary burial plots of the old native strain, which still clung to its customs, though gradually modifying them. The families from Cuzco might be continuing to make their accustomed aryballoids and lidded bowls on feet and shouldered tweezers, perhaps here and there taking over from the Chinchans a balance or yarn bowl in modified form, but remaining averse to the pottery figurine of the local goddess. Meanwhile the native population, or its least influenced element, might have stepped pretty well out of the customs of its forefathers without fully attaining, or wishing to attain, those of their masters.

In short, the LCa II "graves" do not necessarily represent momentary acts of a long homogeneous population, but probably represent in some instances a family record of several generations from variant elements in an imperfectly assimilated population.

According to this interpretation the LCa II material would denote not an integral culture, but rather a culture phase, an episodic manifestation in the transition from the local pre-Inca culture to that of the fully organized empire at the time of its height and overthrow.

Such a view is hypothetical, but seems fairly to reconcile all the facts. It is also a priori reasonable. A sharp segregation of the pre-Inca and the Inca cultures would scarcely be expectable at a continuously inhabited site.

The interpretation also makes clear why Dr. Uhle, among his field catalogue references to pre-Inca and Inca, makes no mention of a phase corresponding to our LCa II: there was no such separate culture, and he allotted the LCa II phase between the pre-Inca (LCa I) and Inca periods. With his eye fixed on the wider problems of Peruvian culture development as a whole, he recognized the two culminations typified in the textile pattern and the aryballoid, and passed over the intermediates or transitions as something to be taken for granted. That is why he sometimes speaks of "pre-Inca and Inca" as if they formed a whole. But the authors, concerned with the one district, and operating intensively on the basis of individual

specimens and individual graves, had thrust on them the evidences not only of the wholly pre-Inca or Late Chincha I culture and the pure Inca culture, but also of the wavering connecting phase that they have called Late Chincha II; which, had Dr. Uhle been forced to proceed as they were, they feel confident he also would have recognized.

DATES

As to absolute dating, the following are pertinent. Means,¹² following Garcilasso, assigns the Inca conquest of Ica, Pisco, and Chincha to Pachacutec, whose reign, according to de la Rosa,¹³ was approximately from 1425 to 1478. This southern coastal tract was the nearest to the existing Inca realm of those conquered during this reign. Its annexation may therefore be set early in the reign, not long after 1425, or about a hundred years before the Spanish conquest. Unless, therefore, Inca cultural influence preceded Inca conquest, the Inca period at Chincha falls within a century.

The Late Chincha II phase would fall in the same century and perhaps somewhat earlier.

The Late Chincha I period is apparently the era from 1000 or 1100 on, regarding which Dr. Uhle in one of his latest publications¹⁴ says: "1100-1400, estilo de Ica local más nuevo;" "1000-1300, período de las conquistas de los Chinchas en el sur;" "1100-1300, formación de estilos de los Incas bajo el dominio de los Incas; dominio del estilo Chincha-Atacameño."

¹² *An Outline of Culture-Sequence in the Andean Area*, Intern. Cong. Americanists, XIX (1915), 236-252, Washington, 1917.

¹³ Cited by Means, p. 244.

¹⁴ *Los Principios de las Antiguas Civilizaciones Peruanas*, Bol. Soc. Ecuat. Estud. Hist. Amer., Quito, IV, no. 12, 1920; table, p. 11.

SITE D AND A PROTO-CHINCHA PERIOD

It will be recalled that at site D it proved impossible for Dr. Uhle to allot objects to graves, presumably on account of previous disturbance. Of the small number of pottery vessels obtained, part have been shown to have LCa I and part Inca affiliations. Specimens other than pottery divide in much the same way. Thus there may be listed as of LCa I type:

- 3857a-3860b, 3812b, 7 balance beams.
- 3854, 3894, white pottery figurines.
- 4135a, 4 pieces of chalk, including one carved into a head.

Of Inca type are the following:

- 3865, Thick-butted spindles, 2 with lenticular whorls.
- 3887, workbasket with slender but painted spindles, the whorls of poor pottery, painted red and yellow.
- 3850, 3851, 3852, fine beads and spondylus pendants.
- 3866, wooden spoon.

Evidently, therefore, LCa I and Inca graves were indistinguishably mixed at this site. Unfortunately, this prevents the assigning of a number of interesting objects to a particular style or period. Among such are:

- 3840, 3841, 2 small gourd bowls with pattern, one beautifully incised.
- 3856, pottery whistle.
- 3861, angular adze handle, cut away for the blade.
- 3863, wooden implement, 24 cm. long, one end flattened into a spatula, the other carved into a human figure.
- 3865, 4 pegs or stakes, points sharpened evenly, upper ends with a painted pattern.
- 3865f, 2 eyed needles of thorn. One has a flattened end. The other retains the original thick butt of the thorn, as if for aid in pushing. It is not an awl: its eye still contains thread.
- 3867a, b, needle case of wrapped cane, with cover; another, containing 4 eyed-needles—3 of thorn, 1 of copper.
- 3871-3875, 6 pairs of sandals, woven, twined or sewn 5-strand braid. The only other Chincha sandal is:
- 3876, rawhide sandal.
- 3889, short ear of black corn. All other corn from Chincha or Ica is or has turned reddish.

Dr. Uhle, in the introduction to the part of his catalogue devoted to site D, the Huaca de Alvarado, mentions this as a "mound-like older Huaca" in which had been dug "chamber-like tombs" whose

contents pertained not to an ancient period, as he had at first been inclined to believe, but "to the last pre-Inca period." The mound structure would accordingly be older than the tombs; and in his map, reproduced in pl. 1, he gives it a shading different from that of all other Chincha sites, to indicate its greater antiquity.¹⁵

He was however able to secure but a minimal representation of specimens that he felt able to associate with the early period in which the huaca was erected, and his determination of the age of these seems to rest rather on his typological judgment than on evidences of stratigraphy or grave affiliation. Apparently the later pre-Inca and Inca Chinchans disturbed the original condition of the huaca, and subsequent treasure hunting was superadded. In regard to the few pieces of supposedly early period, Dr. Uhle says in his catalogue:

Whereas the specimens listed hereinbefore belong to the last pre-Inca period and in great part even to the beginning of the Inca period, traces of a much older period were encountered more superficially on this huaca [Site D]. Occasionally objects of this [earlier] kind were associated with skulls of a quite different type [from those in LCa I and Inca burials]. I am able to catalogue but few objects of this older and very interesting period, since I have not yet been able to find in Chincha any interments made in this period.

3891. Woolen shawl, found in association with a very long skull like those of the highland of southern Peru and Bolivia. In part the technique and colors of the shawl are unique. In other respects there is observable a strong similarity to products of the period immediately succeeding the era of the monuments of Tiahuanaco ["Tiahuanaco-epigonal"].

3891a. Small fragment of gobelin tapestry.

3892a. Spatula of ivory.

b. Fragmentary snake head in pottery.

c. Bead of lapis lazuli.

d. Small worked pieces of spondylus shell.

e. Some characteristic fragments of pottery of an old style. Found in the superficial soil.

Of this little assemblage, the bead and spondylus have been lost; of the several sherds mentioned under 3892e, only one has been identified. So far as found in the Museum, the lot is shown in plate 20, the shawl being represented by a frayed fragment whose reproduction reveals the loose weave.¹⁶

There can be no question of the distinctness of type of these specimens. Not one of them has even an approximate parallel in

¹⁵ The Huaca de Alvarado is built of adobe balls or lumps—not bricks: cf. pl. 9.

¹⁶ In the same plate have been included 7 buff unpainted potsherds (D-4135c, pl. 20, below and right) incised with a stick, and listed by Dr. Uhle as from site D without reference to their exact provenience or supposed period. They are not necessarily of the "old period." They resemble a single incised sherd from B6 (3701b, fig. 12b).

all the remainder of the collection. The sherd, which is in four colors,¹⁷ carries a suggestion of the "Nazca" or proto-Nazca style of ware found by Dr. Uhle at Ica and to the south. The pattern is too incomplete to permit of assurance that it is close to that of Nazca ware, but the pigment tones are definitely similar. The snake (or cat) head is crudely but incisively modeled, with a feeling for plasticity that does not recur in other Chincha pieces. The tapestry is fine, hard, and in soft definite colors¹⁸ that can be more nearly matched in textiles from Ica and even Trujillo than in any from Chincha. The shawl or blanket is yellowish brown with a darker border, of thick, soft yarn, and texture much like that of some Pueblo and Navaho blankets. Warp and woof are of threads of about equal thickness, 2-3 mm. in diameter, two ply, each strand loosely twisted. Warp centers are 6-7 mm. apart, woofs 3-4 mm.

In spite of the sparseness of this evidence, it reveals with little doubt the presence in Chincha valley of a culture different from Inca and LCa I and antedating both. This culture may be designated as Early or Proto-Chincha.

The distinctness of this early material is corroborated by the long, deformed skulls with occipital protuberance (pl. 21), three of which were found at site D; whereas all other skulls obtained by Dr. Uhle in Chincha valley are undeformed or shortened occipitally.

The problem arises how this culture is to be correlated with other early cultures of Peru and Bolivia.

The various types of local and successive cultures recognized by Dr. Uhle fall roughly into four general horizons. These are, in retrograde order: Inca; pre-Inca, varying locally at Ica, Chincha, Pachacamac, Chancay, Trujillo, etc., and including our LCa I; Tiahuanaco and the "Epigonal" phase, also recognizable at Ica, Pachacamac, Ancon, Trujillo; and pre-Tiahuanaco, as exemplified by Proto-Nazca, Proto-Chimu, and the crude ware from the earliest shell-heaps of Ancon.¹⁹

Of these four horizons, the two earliest are obviously the ones between which choice has to be made in correlating the few early pieces from Chincha site D. Yet the evidence is slight for choosing between them. The colored sherd suggests Nazca—therefore pre-

¹⁷ White, red, brownish black, and slate produced by overpainting white on black and black on white.

¹⁸ Lake red; bluish green; dull yellow; black. The warp is white. The pattern fragments are nearly all rectangular.

¹⁹ See *ante*, fn. 1, 2, 3, 14.

Tiahuanaco. The serpent head and tapestry seem rather in the style of Tiahuanaco; which, as the later era of the two, would a priori be slightly more likely to have remains preserved. More decisive, perhaps, is the association of long deformed skulls with the early material; since at Ica the same type of skulls occur in Proto-Nazca graves, and only in those. The Proto-Chincha objects may therefore be tentatively equated in time with the Proto-Nazca culture. But the full content of the Chincha form of this culture remains to be determined.

CONCLUSION

In summary, then, it may be said that the Uhle explorations at Chincha picture in some detail an Inca culture and a pre-Inca Late Chincha (LCa I) culture, and provide some clues toward the recognition of an earlier culture, Early or Proto-Chincha. The Inca civilization did not sharply succeed the pre-Inca one, but was connected with it by a transitional or wavering phase, LCa II, which was somewhat overlapped by the pure Inca culture. The primary explorational problems in Chincha valley comprise the discovery of a well stocked cemetery or site of the early period, both to illuminate the culture of this era and to permit its more positive affiliation with other early Andean cultures; of remains falling chronologically between Proto-Chincha and Late Chincha; and of such traces as there may be of the antecedents of the relatively high Proto-Chincha culture.

SPECIMEN NUMBERS OF OBJECTS SHOWN IN PLATES

Plate 11: *a*, E1-3914; *b*, C7-3759; *c*, E3-3909; *d*, C14-3817. (× 0.)

Plate 12: *a*, C9-3788; *b*, C9-3790; *c*, C9-3789; *d*, C6-3756; *e*, E3-3913; *f*, E3-3917. (× 0.)

Plate 13: *a*, F5-4102; *b*, C4-3722; *c*, C4-3731; *d*, F6-4123; *e*, F4-4088. (× 0.)

Plate 14: Left to right, above, B8-3708 (182 mm.), C14-3823, E3-3918; middle, E6-3940; below, C9-3804a, E13-3976, E6-3941.

Plate 15: Above, E13-3975b (183 mm.); below, E13-3981.

Plate 16: Left, E3-3930f; next four, B4-3649; right, B4-3665 (268 mm.).

Plate 17: Two left, F5-4122f (151 mm.); next three, E11-4046; right, E14-4027 (284 mm.).

Plate 18: Left, F5-4122; next, E18-4056; two right, B4-3649. (× 0.)

Plate 19: D-3887. (× .27.)

Plate 20: Cloth, D-3891a; tapestry, D-3891; head, D-3892b; spatula, D-3892a (159 mm.); painted sherd, D-3892e; seven incised sherds, 4135c. (× 0.)

Plate 21: Left to right, upper: 12-2011, 12-2012; lower, 12-2013, 12-1989.