

tion of a large univalve shell. These were found within two feet of the bottom. A perfect flint knife (Fig. 6) was in the material of the deposit above the first two feet. The first two feet of earth in this reservoir seems to have been carefully placed. It was mixed to some extent with ashes and charred cedar-wood.

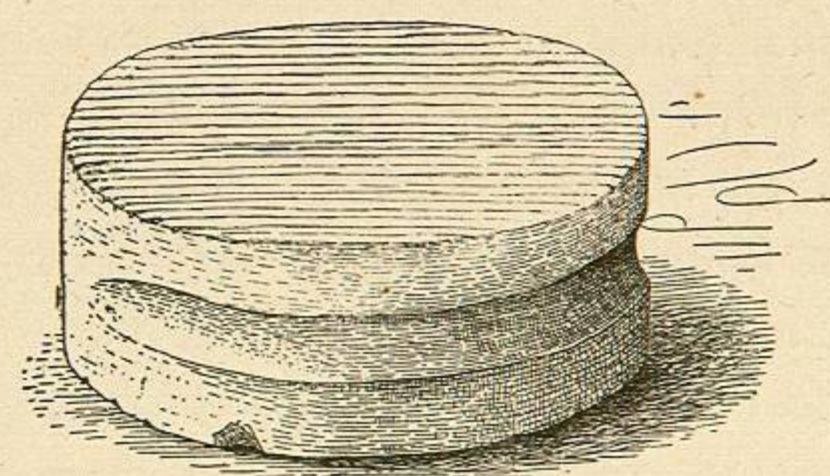


FIG. 7.—IMPLEMENT OF LIMESTONE USED IN THE PREPARATION OF AGAVE FIBRE. CHULTUN 6.  $\frac{1}{2}$ .

This reservoir was nearly filled with the zahcab of the falling roof and walls, the usual insect sapping and mining being aided in this instance by the powerful wedging and leverage of the great alamo roots. The cleaning out of the obviously natural débris left two feet of earth material, evidently artificially deposited. In this deposit were found many potsherds, a part of a terra-cotta whistle, two terra-cotta heads once forming portions of musical instruments (one of which is illustrated on Plate XII. Fig. 16), a bead of shell (Plate X. Fig. 10), one of lime cement painted green in imitation of jadeite, and fragments of flint and obsidian implements; also portions of the cellular part of bones, probably human.

Upon the southeast wall of this reservoir, at a height of three feet above the floor, is the figure of a long-necked bird done in stucco. A similar figure was found carved in stone by the expedition of 1889.

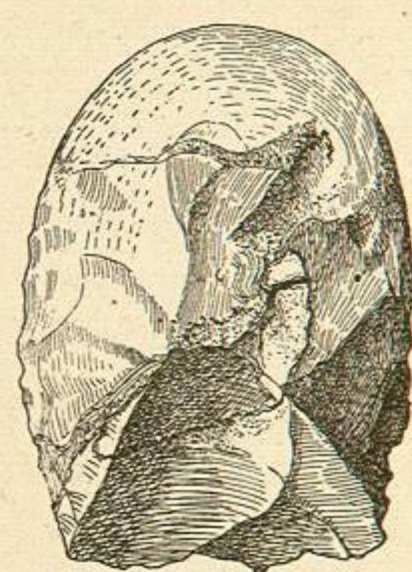


FIG. 8.—CHIPPED IMPLEMENT OF FLINT WITH POLISHED CUTTING EDGE. CHULTUN 6.  $\frac{1}{2}$ .

CHULTUN No. 6 (Plate II. Fig. 6) is situated one hundred and twenty-five feet south of No. 5. This reservoir had once been sealed, but the stone had become partially displaced, probably by the entering roots of some long-rotted tree. A confused mass of material was exposed to view,—entwined rootlets, cast-off skins of serpents, bones, excrement and teeth of bats, iguana bones, a thick covering of ancient mould, and over all the thick yellow colored webs of great spiders. Amid the earth on the bottom of the reservoir were found the usual potsherds, a portion of a flint knife, a well preserved grooved implement of limestone used in the preparation of agave fibre (Fig. 7), and a chipped implement of flint with ground cutting edge (Fig. 8). Various fragments of "katunes," or the roller of the maize grinding stone, were also found.

CHULTUN No. 7 (Plate II. Fig. 7) is situated eighty feet northwest of "Old Edifice." It contained the usual mound-shaped deposit. Directly upon the thin layer of ashes on the floor of the reservoir were found potsherds, a fragment of obsidian knife, a shell bead, a square ornament of shell with five perforations (Plate X. Fig. 15), and beads of lime cement.

In the earth material two feet or less above this ash deposit were encountered potsherds, fragments of bone, a long narrow flint implement (Fig. 9), and the mouth-piece of a terra-cotta whistle.

CHULTUN No. 8 (Plate II. Fig. 8) is situated two hundred and forty feet southeast of No. 3. It was well sealed, and in perfect state. The mound-shaped deposit was three feet high. The general conditions were similar to the other sealed reservoirs. The excavation yielded potsherds of various sizes and patterns, fragments of terra-cotta musical instruments, two shell ornaments (Plate X. Figs. 14 and 23), and two moulds of terra-cotta, about two inches long (Plate XI. Figs. 2 and 4). These moulds are most interesting, since they show the exact method by which the terra-cotta heads and masks were made (Figs. 1 and 3 on Plate XI. are casts from these moulds). This is, so far as I can ascertain, the first known instance of these moulds being found in Yucatan. It is by no means common to find a single terra-cotta head. Those that have been found are treasured in museums and private collections. We have during these expeditions not only made a large collection of these heads, but have also obtained the moulds in which similar heads were made.

Besides these specimens there are two others of a very interesting character, a stone head (Plate IX. Fig. 1) which was lying upon the reservoir floor, and a small jar (Plate XIII. Fig. 2, *d*) from the deposit about two feet above the floor.



FIG. 9.—FLINT KNIFE, CHULTUN 7.  $\frac{1}{2}$ .

CHULTUN No. 9 (Plate III. Fig. 9) is situated two hundred and ninety feet east of the northeast corner of the "Palace." The mound-shaped deposit is three feet high in the centre, and two feet six inches at the reservoir walls. The excavation yielded the usual potsherds, fragments of human bones, and human teeth, an obsidian knife, a worked crystal of calcite (Plate X. Fig. 28), a jadeite bead (Plate X. Fig. 26), and several beads of lime cement painted green in imitation of jadeite. The smaller cement beads are solid, but the larger specimens are hollow, and were probably made in this way to render them as light as possible (several of these beads are shown in Plate X. Figs. 29, 33, 34, 35, 38, 39, 40, 42, 43).

A well executed, mask-like head in terra-cotta (Plate XII. Fig. 15), painted black, was taken from this reservoir. The head is hollow, with an opening at the back and at the mouth and eyes. The upper portion of its



duplicate, evidently made in the same mould, was also recovered, together with several fragments of terra-cotta objects, including whistles.

Upon the walls of this reservoir there are two effigies in high relief, a long-necked bird, and a turtle.

CHULTUN No. 10 (Plate III. Fig. 10) was sealed in perfect shape. It yielded no specimens beyond a few potsherds. It was the only reservoir, sealed or otherwise, that we had found so barren of specimens. The usual mound-shaped deposit was also missing; the earth was nearly level all over the reservoir floor. Yet it may have contained originally the most precious treasures, for in the northeast corner I found a heap of brown, dust-like atoms rather regular in shape, four inches deep, nine long, and eight wide. The termites had eaten it and digested it; the crickets and borers had made it their home for many thousand generations of cricket life; it had been a mass of impalpable tobacco-colored powder for ages perhaps, before time had compressed it into a semi-coherent mass. Fancy consequently could have wide range without fear of contradiction and without hope of proof. Yet I could not help feeling that that brown rectangular heap of snuff-like dust once was what to us would now be a priceless treasure. With a sigh I put away the thought and turned to absolute facts once more.

CHULTUN No. 11 (Plate III. Fig. 11) is situated one hundred and forty feet north of the northwest corner of the "Old Edifice." It was uncovered and filled with rubbish and general débris of all kinds. The bones of a young deer and the skeleton of a wild pig, a javali, were found in the upper layer of débris. In the earth at the bottom of this reservoir were found a few potsherds, a small stone ball, and a piece of worked sea-shell. The appearance of the lowest earth deposit indicated that it was deposited under water, a well-defined layer of regular mud sediment four inches in depth. After this stratum had occurred, the lime material, caused by the boring insects, mixed with vegetable débris, bat and mice bones, and snail shells from above, settled down upon the mud sediment, by that time almost stone-like in its hardness. Thus the accumulation gradually grew; and I find no trace of man's hand in aiding the natural accumulation. The stone ball, the potsherds, and the sea-shell were deposited, probably carelessly dropped in, while the reservoir still held water, or else while the mud was still soft.

CHULTUN No. 12 (Plate III. Fig. 12) is situated seventy feet west of No. 11, upon the same ruined terrace. This reservoir is almost exactly described by the account given of the preceding reservoir. Several bone fragments were found, so decayed as to make identification impossible, and also a few beads of lime cement (one of which is shown in Plate X. Fig. 41). Close by the floor of the reservoir was found a stone collar, of the class previously described, broken into three pieces.

CHULTUN No. 13 (Plate IV. Fig. 13) is situated three hundred and fifty feet southeast of No. 3. This reservoir had been carefully closed in the

usual manner, but the entire north wall had caved in, covering the earth deposit with a layer of stone and lime over a yard thick. Removing this, we found a thin earth deposit only nine inches deep. From this we excavated a stone collar entire (Plate IX. Fig. 2), a small pitcher-like vessel almost intact (Plate XIII. Fig. 2, *e*), and some human bones very much decayed.

CHULTUN No. 14 (Plate IV. Fig. 14) is situated two hundred and sixty feet east of the "Palace." It was uncovered and half filled with débris. Excavations yielded potsherds and the terra-cotta heads shown upon Plate XI. Figs. 13, 18, 21, and 22, and Plate XII. Fig. 11.

CHULTUN No. 15 (Plate IV. Fig. 15) is situated one hundred and seventy feet north of No. 12. It was sealed completely. It contained the usual mound deposit. There was no evidence of any special care in depositing the first two feet of material. The excavation yielded potsherds, bones of animals, and a bead of lime cement.

Upon the walls of this reservoir are four figures in mezzo-relievo, — a snake, a turtle, a toad, and a nondescript creature.

CHULTUN No. 16 (Plate V. Fig. 16) is situated two hundred and eighty-four feet southwest of No. 13. It was uncovered and contained much débris. The excavation yielded only a few potsherds of the common classes and patterns.

CHULTUN No. 17 (Plate V. Fig. 17) is situated three hundred and twenty feet southwest of No. 16. The excavation yielded potsherds and a broken stone collar; also a portion of the skeleton of a native dog, including the skull.

CHULTUN No. 18 (Plate V. Fig. 18) is situated two hundred and twenty feet northwest of No. 14. It had been sealed, but the rock slab covering the opening had been cracked and forced apart by tree roots. The interior of the reservoir was a mass of roots. There was the usual mound-shaped deposit. The excavation yielded a broken stone collar, potsherds, fragments of human and animal bones, fragments of terra-cotta figures (one of which is illustrated upon Plate XII. Fig. 3), and a portion of a small jar similar to those already described. This jar was found lying on its side in the deposit, nine inches above the floor. An interesting specimen found in this reservoir was a large potsherd having the phallic emblem moulded upon it in low relief.

CHULTUN No. 19 (Plate V. Fig. 19) is situated two hundred and six feet northwest of No. 9. It was once sealed, but the cover is now entirely destroyed. The excavation yielded potsherds, several terra-cotta heads (Plate XII. 5, 6, 7, 10, 12, 13, 14), a shell pendant, fragments of obsidian knives, fragments of terra-cotta figures, and the portions of musical instruments illustrated on Plate XIII. Fig. 1, *e* and *i*. Fragments of bones were also found, but the dampness and other causes had left but little of them. This reservoir was built upon a low terrace densely overgrown with trees.