

CHULTUN No. 20 is situated three hundred and twenty feet southwest of the "Palace." It contained potsherds, fragments of animal bones, fragment of a bird-shaped terra-cotta whistle, beads of terra-cotta and white stone, and three terra-cotta heads.

CHULTUNES Nos. 21 & 22 (Plate VI. Figs. 21, 22) are situated three hundred and thirty feet southwest of No. 3. These two reservoirs are united. Evidently two pockets of zahcab had been worked until one broke into the other. When the zahcab was exhausted the two pockets were converted into reservoirs, each having its separate mouth, but with an open way connecting the two beneath the surface. This is the first instance of this class of reservoir encountered by me. No. 21 contained the usual mound-shaped deposit. The first three feet of this deposit, from the floor up, was clearly placed in position and apparently stamped or hand-pressed. Upon the floor of the reservoir, with only a few inches of earth beneath them, were found two human skeletons smashed to fragments and decayed into mere lime dust, but clearly discernible as skeletons. Skeleton No. 1 was placed with the head toward the northeast, lying on its side with knees drawn up toward the chin, and facing the north. Skeleton No. 2 was placed directly north, in the same general posture. With these skeletons were found several small potsherds. Nearly a day was spent on each skeleton, with soft hand-brushes, forceps, and white glue atomizer, but the only portions of the skeletons that could be preserved were the enamel of the teeth and a few of the hardest joints of the bones.

CHULTUN No. 22 contained only a few common potsherds.

CHULTUN No. 23 is situated in the northeast corner of the Lower Rear Terrace of the Palace. Possibly this was once sealed, but it is now so destroyed that no actual proof exists. The excavation yielded potsherds, animal bones, — rabbit and javali, — beads of shell and lime cement, and a small highly polished disk of iron pyrites.

CHULTUN No. 24 (Plate VI. Fig. 24) is situated two hundred and twenty feet northwest of No. 9. This reservoir had been left unfinished; one side was not "evened off," and the stucco finish had not been applied. It contained only the tailings of the zahcab, the small stones that are always, even in the present day, left by the zahcab workers, and the surface material washed and blown in through the opening. Nine inches was the average thickness of the layer of this surface mould. Thorough investigation of the tailing did not yield a single specimen.

CHULTUN No. 25 (Plate VI. Fig. 25) is situated three hundred and twenty feet south of the "Palace." It was completely sealed in the usual manner. Seven small openings showed the burrows of moles and insects. It contained the usual mound-shaped deposit, consisting of earth mixed with bits of charcoal and ashes. The excavation yielded fragments of terra-cotta objects, including the well-modelled heads of quadrupeds (shown

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on Plate XI. Figs. 12 and 20), animal bones, obsidian knives, worked sea-shells (including the pendant illustrated on Plate X. Fig. 18), two pieces of flint lance heads or knives, and a small terra-cotta vessel (Plate XIII. Fig. 2, *f*). The cylindrical stone of an ancient corn-mill was also taken from this reservoir.

CHULTUN No. 26 (Plate VII. Fig. 26) is situated one hundred and eighty feet northwest of No. 23. It was completely sealed, and filled almost to the neck with earth material placed by human hands in its position. Allowing for settling, etc., it must have been completely filled when closed.

The lowest layer, a yard thick, contained fragments of human bones and human teeth, teeth of the dog, a chalcedony knife (Fig. 10), also the lower half of a similar knife of flint.

The second layer of three feet, immediately above the preceding layer, contained innumerable potsherds, a terra-cotta whistle (Plate XIII. Fig. 1, *g*), a beetle of terra-cotta (Plate XI. Fig. 11), beads and ornaments of shell (Plate X. Figs. 1, 6, 12, 13), a bead of stone (Plate X. Fig. 24), beads of lime cement, and worked shell. This deposit was covered with a layer of lime and zahcab, borings of larvæ, and scalings from walls and roof.

CHULTUN No. 27 (Plate VII. Fig. 27) is situated in the north central portion of the rear high terrace of the "Palace." Huge stones, rectangular blocks, covered the mouth of this reservoir, but it is impossible to say whether it had been originally closed or not, as these stone masses had crushed the mouth out of all shape.

Very little material was upon the floor of this reservoir, less than two feet of earth material on a level. The excavation yielded small terra-cotta balls, and fragments of terra-cotta objects, including one of a human head and fragments of a mould shown on Plate XI. Figs. 8 and 9 (clay casts from these fragments are represented by Figs. 7 and 10 of this plate), bones of small animals, a portion of a flint knife, fragments of obsidian knives, a lime cement bead, painted green in imitation of jadeite, a stucco ornament similar to those illustrated on Plate X., a shell disk (Plate X. Fig. 19), a ball wrought from a calcite crystal, and a highly polished cylinder of the same material (Plate X. Fig. 27). Upon the eastern wall, at a height of three feet, we found the figure of a turtle on the stucco finish.

CHULTUN No. 28 (Plate VII. Fig. 28) is situated two hundred and



FIG. 10.—KNIFE OF CHALCEDONY. CHULTUN 26. $\frac{1}{2}$.



FIG. 11.—IMPLEMENT OF FLINT. CHULTUN 28. $\frac{1}{2}$.

forty feet west of the extreme right wing of the "Palace." It was uncovered, and filled to a depth of five feet with general débris. There was no evidence that man had placed the earth material within. The excavations yielded a great quantity of potsherds, a perfect obsidian knife, and two fragments, and the rude flint implements illustrated in Figs. 11 and 12.

CHULTUN No. 29 (Plate VII. Fig. 29) is situated one hundred and ten feet southwest of No. 28. It is a double-mouthed reservoir and is much destroyed. We commenced work under the belief that it had once been a closed reservoir, but subsequent investigation proved the stone covering of the mouths to be fallen building material. No specimens except ordinary potsherds were found in this reservoir.

CHULTUN No. 30 (Plate VIII. Fig. 30) is situated three hundred and ten feet northeast of No. 29. It contained the usual mound-shaped deposit. A large stone, that probably had once covered the mouth, had been moved to one side, evidently at a much more recent period. The earth deposit within did not seem to have been disturbed, as it retained its regular sequence of dark red earth capped by the zahcab castings.

The excavation yielded potsherds and terra-cotta fragments only. The earth was damp and mouldy, and any bones would probably have long since decayed.

CHULTUN No. 31 (Plate VIII. Fig. 31) is situated two hundred and twenty feet northwest of No. 30. It was well closed by a large stone and hard stucco. The deposit on the floor level was not mound-shaped. A thick layer of zahcab three feet deep, artificially placed, covered a mixture of



FIG. 12.—IMPLEMENT OF FLINT. CHULTUN 28. $\frac{1}{2}$

earth and ashes nine inches deep, placed directly upon the reservoir bottom. In this lower layer we found fragments of terra-cotta objects, a bead of lime cement and one of shell, worked shell and two shell pendants (one of the pendants is illustrated on Plate X. Fig. 20), a terra-cotta mould for casting the head of a monkey (Plate XI. Figs. 5 and 6. Mould and clay cast), and a small terra-cotta vessel (Plate XIII. Fig. 2, *g*), which may have been an incense burner, having the top closed with the exception of an orifice three-eighths of an inch in diameter. This interesting specimen, however, resembles one form of ancient Greek temple lamp far more than it does an incense burner. On one side of the flat top can still be seen the dark spot where the burning wick was placed. The terra-cotta mould is in perfect shape, and shows the method of casting the terra-cotta heads of which we secured so fine a collection.

CHULTUN No. 32 (Plate VIII. Fig. 32) is situated one hundred and forty feet northeast of No. 12. This had once been sealed, but the stucco had been gradually worn away by gullies during the rainy seasons. The earth material within was damp and mouldy. The excavation yielded a few potsherds and bones of small animals. The steel sounding rod revealed the fact that this reservoir had a second bottom four feet beneath the first. This filling was composed of red earth and zahcab, mixed with field stones and stone chips. The excavation yielded two stone heads of rude workmanship.

CHULTUN No. 33 (Plate VIII. Fig. 33) is situated two hundred feet northeast of Mound 41. It was sealed, and the stone cover was in position. Less than a foot of earth deposit was upon the floor. This deposit had been placed and levelled by man. It contained a stone grinding mill or metate (Fig. 13), and a peculiar stone, — large, egg-shaped, and well worked, — and three shell ornaments (similar to Fig. 14 on Plate X.).



FIG. 13.—METATE, OR GRINDING MILL OF LIMESTONE. CHULTUN 33. $\frac{1}{2}$

CHULTUN No. 34 is situated seventy feet northeast of Mound 41. It had been sealed, but the stone cover had been upheaved by the roots of a huge cholul tree. The space of the reservoir was completely filled by roots and rootlets, some as thick as a man's wrist, others as fine as a silken thread. The level earth deposit was two feet deep, and was covered with zahcab from the roof and walls. The deposit was damp and mouldy. The excavation yielded bones of quadrupeds, fragments of terra-cotta objects, two human heads of terra-cotta, and a head of a bird of the same material, two terra-cotta whistles, a broken musical instrument of terra-cotta still showing some of the blue paint with which it had been painted (Plate XIII. Fig. 1, *h*); also broken shell ornaments, a bead of lime cement, and a cylinder made from a calcite crystal.

To enumerate or attempt to describe the subterranean reservoirs which furnished no data would only serve to fill up the report with useless matter. Many of these were so situated that they naturally received all the washings of the neighboring mounds, and they were often filled nearly to the mouth with débris closely packed by the rains and hardened by ages into an almost stone-like mass, which made the work of excavation extremely difficult. We carefully investigated every chultun that could be worked with any

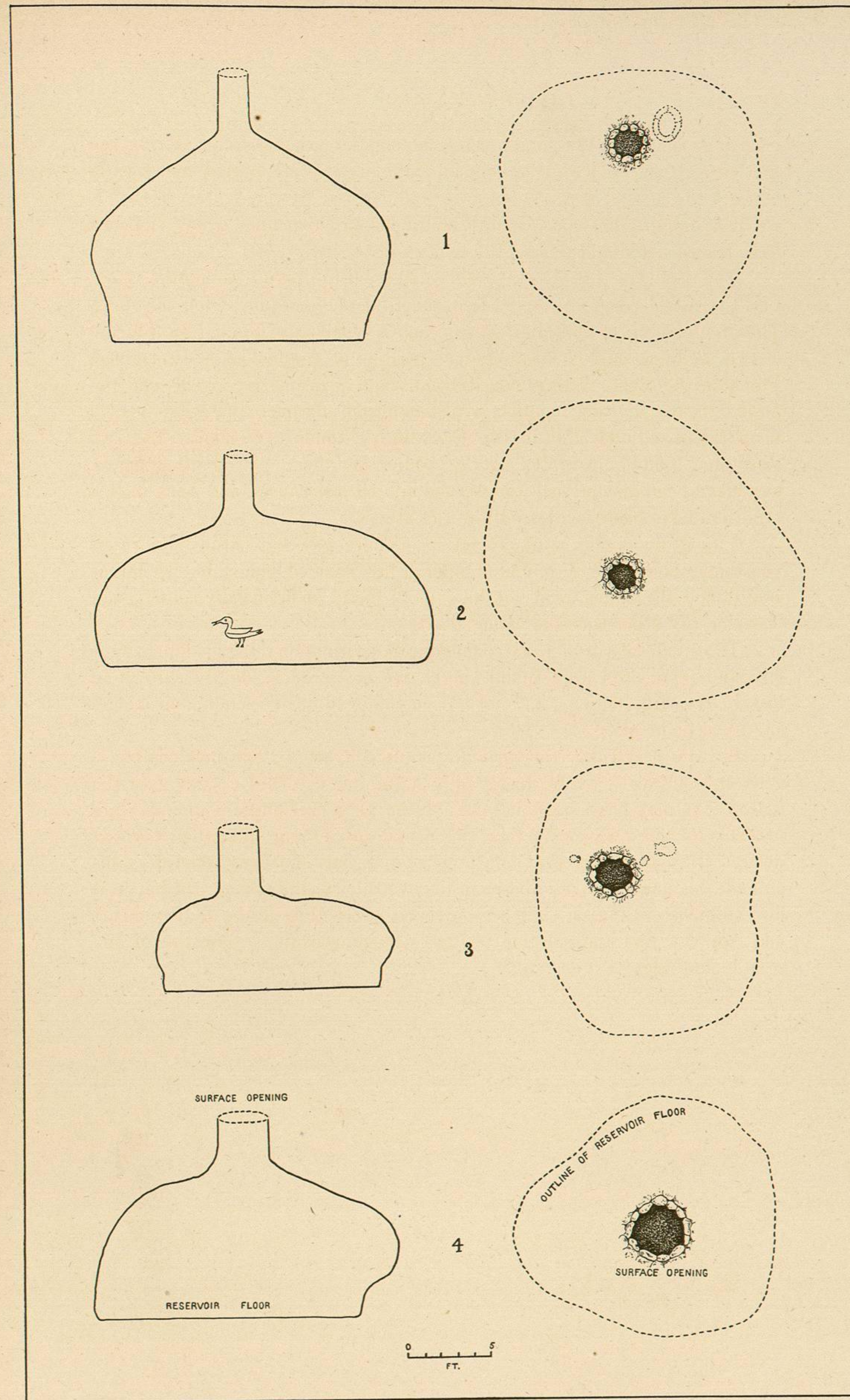
chance of success. We found many new ones unknown to us during our first expedition; and while others undoubtedly still lie buried many yards beneath the masses of the fallen walls and covered by the dense vegetation, we feel certain that most of the chultunes in this ruined group of Labná have been located and thoroughly explored.

The results of this investigation would seem to prove, among other facts, that the sealed reservoirs were used as ultimate depositories for the dead. The greater number contained human bones or traces of them. In the case of two skeletons only could the actual position of the bodies be ascertained. Probably the others were removed from some previous receptacle and deposited in the chultun, together with the burial offerings, the earth heaped upon them, and the chultun converted into a tomb and sealed. The two skeletons, found apparently as the bodies had been placed after death, may have been exceptionally preserved by natural causes, and thus in this condition have been re-interred like the others.

I found no evidences of cremation. There was charcoal in these reservoir-tombs and ashes also, and I found a few charred bones, but so far as ascertained the bones were not human. I found no artificially split human bones or any other traces of cannibalism.

The numerous beads and pendants of gypsum, crystals, jade, chalcedony, and terra-cotta were found singly and scattered, evidently thrown in loosely as death offerings, and not left on the dead or deposited as necklaces or corded pendants.

If I am asked why this ancient people converted their precious reservoirs into ultimate tombs, I can only state the fact and cannot give the reason. It may have been because of the very preciousness and absolute necessity of these reservoirs that the people gave them up to their revered dead. In some lands the mourning one gashes his body, sacrifices his animals, his human slaves, and even his own life, to the memory of his dead lord and master. In this almost universal prompting of the human heart may we not find the solution of this strange problem,—the use of the sealed chultunes of Yucatan?



VERTICAL SECTIONS EAST AND WEST THROUGH
SURFACE OPENING.

HORIZONTAL SECTIONS SHOWING OUTLINE OF FLOOR
AND SURFACE OPENING.

THE CHULTUNES OF LABNÁ, YUCATAN.