THE ANCIENT STRUCTURES OF YUCATAN NOT COMMUNAL DWELLINGS.

BY EDWARD H. THOMPSON.

I DESIRE to state with all the emphasis of an absolute conviction, that the ruined structures of Yucatan were not communal dwellings, as has been by many believed.

I have examined over sixty groups of ruins and have never yet failed to encounter, where circumstances made investigation possible, sites of the lower class of homedwellings in every way as different from the imposing edifices of stone, as are the humble abodes of the day-laborer from the palatial structures of modern luxury.

In the neighborhood and enclosing many ruins, as for example those of Uxmal and Chichen-Itza, modern haciendas have been maintained for many decades, and the ancient structures have served as granaries and cattle-pens, while the modern huts of the peons have dotted the region. These huts, prototypes of the ancient dwellings of the lower classes, are fragile structures of withe-work and mud, thatched with the leaves of the guano-palm. They are abandoned on the slightest pretext.

The quick decay of the tropics, and wood-eating insects, in a short time, convert their fragile structures into hutsites almost as ancient in actual appearance as are the house-sites left bare centuries before. This fact of course almost precludes obtaining reliable data of the kind desired from such ruined groups.

My most systematic and searching investigations have been made in a ruined group absolutely free from such intrusive modern structures.

Labna, a ruined group lying among the Sierras, beyond the frontier towns of Yucatan, has for seven years been the field of my principal archæological labors. Surrounding this group of ruined stone structures, temples, palaces and priestly dwellings, I have found hundreds of sites once covered by the mud-walled, palm-thatched homes of the humbler classes, the Na's of the past. Excavating these sites, I find the ever-present Koben, the three-stone fireplace, the broken pottery in the ashes, the fractured metatl and roller with which the corn for the daily "uah" was ground, and children's toys in the shape of polished sea-shells and bits of figured clay, hard burned.

In the Ohio excavations, carried on with so much skill and patience by Professor Putnam and his assistants, even the post-holes of prehistoric structures have been found. The post-holes of similar structures in Yucatan I cannot find, and although I know they once existed, I hardly hope to find them.

A broad-mandibled digging ant, called by the natives " ∂ay ," infests the forests and jungles of Yucatan to an extent that will often convert a former level plain into a series of cellular mounds sometimes several feet high, leaving the apparently level earth so honey-combed that a careless traveller will often find himself sinking up to his knees in the loosened earth. When these ants work as they generally do amid the ruined groups, it is useless to think of encountering post-holes or indeed any small objects, except such as by hardness of material or otherwise defy the destructiveness of these insect vandals.

The huts of the aborigines were, judging from the contours of their sites, of various sizes and shapes. The majority were oval, some were nearly round with a diameter of twenty-five feet, while a few were rectangular. This last form was rarely encountered and when found is invariably larger than the oval or round structures. Some of the larger structures were connected by a pathway, whether

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covered or not of course I cannot say, with a smaller structure in the rear. I find no trace of streets as we understand the term; meandering paths winding among the huts apparently served the purpose and were probably allsufficient, as they had no beasts of burden or cattle of any kind. The hut-sites are rarely separated by more than forty feet of land space, and often much less. These huts, built directly upon the low, moist soil of the valleys, must have been very damp and stifling in the wet season. The sanitary conditions must have been terrible. Death undoubtedly laid a heavy hand upon the lower classes. Great pestilences, reference to which is found in all traditions of the natives, could easily have been nursed amid such conditions.

Within the precincts of the palaces and the priestly abodes all was different. Smoothly levelled terraces of different elevations were so constructed as to furnish perfect sanitary drainage. The imposing structures erected upon these terraces were constantly swept by refreshing breezes, giving a temperate coolness to the fortunate inmates, while the luckless dwellers in the huts upon the plain below were steaming in a torrid heat. This description is not imaginary on my part; I have lived in the palaces and steamed in the plains beneath. The difference in temperature can hardly be realized. At Labna, after perspiring at every pore from the simple act of taking notes, I have ascended the terrace of the temple and have been actually chilled by the freshness of the constant breeze prevailing at that altitude.

The immense terraces and the structures that once crowned them, many of which still remain, indicate the existence of superior intelligence to command the labor necessary to erect them. Such labor, it is fair to presume, was either the forced task of slaves, or the voluntary service of religious devotees. Possibly both factors were utilized. Authorities commanding less valuable labor had

to be content with terraces of less altitude and stone structures less imposing. I find many structures of this class in all of the ruins, including Uxmal and Chichen-Itza.

Generally, near the great palace of each group, I find small structures of stone, often entirely without ornamentation and almost always upon a lower level than the palace proper. That these structures were actual habitations seems more than probable from evidences that exist, projections for hammocks, etc. It seems but natural to suppose that these were quarters for the servants of the palaces or sacred structures. This is of course but supposition, as no proof is at hand, but the idea is the commonsense one.

Of the home life of the humble dwellers there is much yet to be learned. We do know, however, from abundant proofs, that their life in general was much like that of the servile class of to-day, but unrelieved by the potent aids and ameliorations that the present civilization affords to even the most ignorant and to the humblest class. Their cutting implements were of stone or obsidian, broken to a serrated edge or chipped to a cutting one. Obsidian was scarce among them, and the finds made would seem to prove that they possessed themselves and utilized the smallest fragments, possibly the pieces rejected and thrown out as useless by the dwellers in the stone structures.

Indian corn or maize was then as it is to-day an important article of food. I find nearly the same proportion of broken *metatl*, or corn-grinders of stone, and their Ka's, or rollers, among these ancient sites that I do around the native hamlets or pueblos of to-day. I have made close calculations from personal observation, and find that of the food of the lower classes of to-day, eighty (80) per cent. is of Indian corn in its various forms, twelve (12) per cent. of vegetables and fruits, and the remaining eight (8) per cent. of meat. With this great preponderance of demand for grain-food, it would seem as if the ancient people of

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Yucatan must not only have been essentially an agricultural people, but that the laboring classes must have had so much to do in raising the Indian corn for their own sustenance, and also for the numerous non-producers practically dependent upon them for their food-supply, that no time could be afforded to erect these immense, terraced mounds, or cut the innumerable carved stones and hewn blocks to face the huge structures with which they were crowned. The Indian of to-day in Yucatan is pre-eminently a corn raiser; whatever else he may neglect he never neglects his corn-field, or milpah. Notwithstanding this, not enough corn is raised in Yucatan to satisfy the demands of the nonproducers, by a quantity varying from one hundred thousand to two hundred and fifty thousand bushels yearly. It must be borne in mind that the great demand of the present day is caused in part by the necessities of the domestic animals, horses, cattle and fowls. We have no evidence to prove that the ancient inhabitants of Yucatan had a single species that could be called a domestic animal as the term is used by the world in general. Whether these reflections coincide with the ancient facts or not cannot be proved, but it is clear that maize was in sufficient quantity to supply the demands, that the terraced mounds¹ and massive structures were erected, and that these great labors were accomplished by the sweat and painful toil of the humble laborers of the land.

Upon the interior walls of a certain edifice at Chichen-Itza, apparently a temple, standing upon the highest artificial pyramidal mound of the group, and approached by flights of stone steps upon its four sides, still exist mural paintings that, although faded by time and still more defaced by vandals, are to-day the most perfect examples of mural paintings by the ancient dwellers in Yucatan that

¹ Moreover, it is easily proved by investigation that a large proportion of the terraced mounds were artificially constructed, except when they chanced to be located in a hilly country, which is rather the exception than the rule.

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AN INDIAN WOMAN SELLING FOOD. (Mural paintings in the ruins of Chichen-Itza, Yucatan.)

Plate 1.

are known. Among the many interesting scenes represented, are several which depict thatched houses like those in use the present day. Within one of these a woman is seen seated upon a kanche or native chair, before her is the koben or three-stone fireplace upon which is cooking some object, a fish or some small animal. By her side is a basket filled with some round or disk-like objects, presumably the uah or tortilla. From the rear of the house or hut, a man is going out in an attitude of leave-taking, while at the front of the hut another man is standing, apparently desirous of purchasing or begging the food displayed. (See Plate 1.) The same scene is now met with in every native village, with all the accessories, kanche, koben and all the rest, every day. So far I have found no evidences leading to a belief that these early builders were not the ancestors of the present native race in Yucatan. At the same time, I am bound to state that the dress of the ancient women as depicted upon the walls at Chichen-Itza does not seem to have been the *uipic* and *uipil*. the hitherto-supposed ancient female apparel of Yucatan.

The copies of the mural paintings upon the walls of the Chichen-Itza structure, now in possession of the American Antiquarian Society, are undoubtedly the most truthful reproductions of this ancient work in existence. In making these copies the greatest care was taken to obtain accuracy in detail in color. The room was, by reason of its situation and structure, obscurely lighted, while the colors upon the walls were dimmed and in places hidden by a coating of ancient grime. Care and a series of large reflectors made of white cloth stretched upon frames, so placed as to throw a soft, white light upon the different walls, overcame the above obstacles. Great care and attention were also required to eliminate the intrusive work of those in modern times who, not finding the ancient paintings entirely to their liking, had striven by pencil and brush to make them so. By the aid of a good magnifying-glass, line, after line was

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traced out, until as a result that which was proven authentic was transferred by a skilful artist to his paper, and these fac-similes of this ancient work are now safely guarded in the archives of the above-mentioned society.¹

The water-supply of a people is always a most important and interesting study. It becomes doubly so when considering a land where no rivers intersect the country, or lakes

¹ The two plates here given are selections from the copies thus taken of these mural paintings, and show several very interesting features.

The ancient artists whose works these mural paintings were, had a peculiar method of placing one layer of pigment over another and as some of these layers seem to have had but slight adhesive qualities it follows that by the lapse of time and other agencies, many of the original designs have become changed. For example, the ancient artist desired to depict a warrior carrying a green shield with yellow bosses studding it. The shield was first painted entirely over with green, then against this as a background was overlaid a thick chalky pigment forming the round disks or yellow bosses. To-day, the point of a penknife, or even a slight jar is sufficient to dislodge many of these disks, thus changing the device of the shield very materially. Generally, however, the colors used retain their shade in a remarkable degree under the adverse circumstances that surround them.

Plate 1 represents a woman seated upon a *kanche* or native chair close by the open door of the house, just without the house is the *koben* or three-stone fireplace. Upon this is placed a pecullar cooking-utensil within which some small animal is being cooked. By her side is placed a basket containing many round or disk-like objects, probably the kind of bread to-day generally known as tortillas. The woman wears a garment resembling the *uipil*, the embroidered edge of which has a design strikingly resembling a line of cornice ornaments very common among the ancient structures of Yucatan. Two other figures are visible, both apparently men, both are clothed in loose upper garments, apparently white, fringed with a brown material, possibly tanned deerskin cut into fringe-like ornaments. One of these figures, the one apparently requesting food of the woman, has the ear-lobe orifice filled by a huge ear ornament. The other figure, just outside of the rear door, is in the attitude of leave-taking. The two figures, in general appearance, strikingly resemble the peripatetic mendicants that abound in Yucatan at the present day.

Plate 2 presents the section of an inhabited group. The thatched houses are shown, even the markings of the palm thatch are clearly visible in places where time and man have not succeeded in erasing them. Close by these houses women are depicted watching with very intense anxiety the result of the battle being waged before them. The emotion is very clearly shown in the attitude of the women.

The student of this plate will note the fact that the garments worn by the women depicted, are colored and otherwise quite different from the pure-white tastefully-embroidered *uipil* and *uipic*, the supposed garments of the sex in ancient times.

As soon as certain investigations which I have commenced are finished, I shall try to explain these apparent differences of dress in a special paper.



INDIAN HOUSES AND INTERIORS. WOMEN IN THEIR PECULIAR COSTUME.



Plate 2.

dot the surface. Not that Yucatan lacks either lakes or rivers, but as they are generally from fifty to two hundred feet beneath the surface, and that surface mostly solid limestone, it manifestly becomes difficult to have always immediate access to these sources of supply. There are huge crevasses, deep holes and water caves, all called indiscriminately chenes or cenotes, existing in many portions of Yucatan, and where the groups of ancient ruins are situated near them the problem is easily solved, as they offer an abundance of the precious fluid. But there are groups situated in districts where I have been able to find no such sources of *natural* supply, notwithstanding diligent search. In such places it is not hard to find the sources of watersupply for the stone dwellings, nearly every one of which had its reservoir or series of reservoirs, each one holding when in use an average of eight thousand gallons, but I am unable to find the method of water-supply for the laboring class. The large pot-holes in the hillside ledges called sartenjas probably supplied the wants of a portion, while hollow trees fire-hewn into water reservoirs may have served likewise. Both of these methods of supply are in use to-day among the Indians of the unexplored interior.

How little absolute knowledge we have of this mysterious people whose very existence would have been denied were not the massive evidences of their former presence still in sight. And yet like the gradually unfolding details of a negative, fact after fact is being continually discovered by patient investigation, until we can hope before many years to have at least an outline history of these prehistoric Americans, until the life-histories of their famous warrior chiefs or priestly rulers are known to us, and we learn of the pains and tasks and trials of the bone and sinew of all temporal prosperity and pride of power, the field-laborer and worker.

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