

CHAPTER III.

EXPLANATION OF FIGURES AND CHARACTERS ON PLATES XX-XXIII OF THE MANUSCRIPT TROANO AND 25-28 OF THE DRESDEN CODEX.

As heretofore stated, the figures that occupy the spaces on Plates XX-XXIII¹ appear to relate, in part at least, to the close and commencement of the more important periods of time. I have already given my reasons for believing that the blue figure in the upper compartment of Plate XXIII represents an Ahau, and that the piercing of the eye with the dagger signifies that the last year of the period has arrived and is about to close.

Referring to Landa's *Relacion de Cosas* §§ XXXV-XXXVIII, I find the following account of the religious festivals which occurred during the intercalated or closing days of the old and the commencement of the new year, each of the four years, Kan, Muluc, Ix, and Cauac, having its own peculiar ceremonies.

As this is really the key to the explanation of the figures on the four plates mentioned, I quote his statement in full, translated from Brasseur's French, giving the original Spanish in Appendix No. 1.

“XXXV.—*Fetes of supplemental days—Sacrifices of the commencement of the new year of the sign Kan.*”

“It was the custom in all the cities of Yucatan that there should be at each of the four entrances of the place—that is to say, the east, west, north, and south—two heaps of stone facing each other, intended for the celebration of two feasts of unlucky days. These feasts took place in the following manner:

¹The reader is reminded again that Plates XX-XXIII of the Manuscript are the same as our Plates I-IV, a fact which will not be repeated hereafter in the text.

"The year of which the dominical letter was *Kan* the omen was *Hobnil*, and, according to the belief of the Yucatecs, they both reigned in the region of the south. This year, therefore, they fabricated a hollow image or figure of baked earth, of the idol which they called *Kan-u-Uayeyab*, and carried it to the heap of dry stones which was on the south side. They elected a chief from the citizens, at whose house they celebrated the feasts of these days. At this ceremony they made also the statue of another god, named *Bolon-Zacab*, which they placed in the house of the chief elect, in a spot where every one could approach.

"This done, the nobles, the priest, and the citizens assembled together. They returned, by a road swept and ornamented with arches and foliage, to the two piles of stone, where they found the statue, around which they gathered with much devotion. The priest then perfumed it with forty-nine grains of bruised maize mixed with incense. The nobles placed their incense together in the censer of the idol and perfumed it in their turn. The maize mixed with the priest's incense is called *zacah*, and that which the nobles present is called *chahalte*. Having incensed the image, they cut off the head of a fowl and presented to it.

"When this was finished they placed the statue on a litter called *Kanté*, and on its shoulders an 'angel' as an omen of water and the good year which they should have. As to these 'angels,' they were frightful in appearance.

"Then they carried the statue, dancing with much gaiety, to the house of the chief, where he found the other statue of *Bolon-Zacab*. While they were on the way one of them carried to the nobles and the priest a drink composed of four hundred and twenty-five grains of burnt maize, which they called *Picula-Kakla*, and all partook of it at the same time. Arrived at the chief's house, they placed the image which they carried, face to face with the statue which was already there, and made many offerings of drinks and viands, of meat and fish. These offerings were afterwards divided among the strangers who were present, and they gave the priest only a leg of venison.

"Others drew blood from themselves by scarifying their ears, and anointed with it a stone which they had as an idol, called *Kanal-Acantun*.

They modeled a heart from the dough of their bread, and in the same way another loaf, of gourd seeds, which they presented to the idol *Kan-u-Uay-eyab*. It was thus that they guarded this statue and the other during the unfavorable days, perfuming them with their incense and with incense mixed with grains of bruised maize. They believed that if they neglected these ceremonies they would be subject to the calamities which were the result of this year. The unlucky days having passed, they carried the statue of the god *Bolon-Zacab* to the temple, and the image of the other to the eastern entrance of the city, in order to have it for the next year. They left it there, and returning home each one occupied himself with preparations for the celebration of the new year.

"As soon as the ceremonies were terminated and the evil spirit dispelled, according to their mistaken idea, they believed this year to be fortunate, because with the sign *Kan* reigns the *Bacab-Hobnil*, who, as they say, has not sinned as his brothers, and for this reason no calamity befell them in that year. But as it frequently happened that this occurred notwithstanding, the demon was conciliated by establishing these ceremonies, so that in case of misfortune they attributed the fault to their ceremonies and to those who served in them, so that they remained always in error and blindness.

"At his instigation, then, they fabricated an idol called *Yzamna-Cauil*, which they placed in his temple, and burnt before it in the court three pellets of milk,¹ or resin, which they called *kik*; they sacrificed to it either a dog or a man, which was done with the ceremony spoken of in chapter one hundred on the subject of victims. There was, however, some difference in the manner of offering this sacrifice; they put in the court of the temple a large heap of stones, and the man or animal who was to be sacrificed was fastened to a sort of elevated scaffold, from whence they hurled him onto the heap of stones; the officers immediately seized him and tore out his heart, which they carried to the new idol, offering it to him between two plates. They made still other offerings of comestibles. At this feast the old women, selected for this occasion, danced, clothed in peculiar garments. They believed that an angel descended then and received the sacrifice.

¹ By the term "milk," as here used, is meant the milky juice of some plant.

"XXXVI.—*Sacrifices of the new year at the sign of Muluc—Dancing on the stilts—Dance of the old women with the dogs of baked earth.*

"The year of which the dominical letter was *Muluc* had for the omen *Canzienal*. When the time arrived, the nobles and the priest elected the chief who should celebrate the feast. This done, they modeled, as in the preceding year, the image of the idol called *Chac-u-Uayeyab*, and carried it to the heap of stones at the eastern side, where they had left it the year before. They made a statue of the god called *Kinch-Ahau*, which they placed in a suitable spot in the house of the chief; then, from there, setting out by a road neatly swept and ornamented, they returned together with their accustomed devotion to the statue of *Chac-u-Uayeyab*.

"Having arrived here, the priest perfumed it with his incense and forty-three grains of bruised corn, which they called *zacah*; he gave to the nobles the incense called *chahalte* to put in the censer, after which they cut off the head of a fowl, as formerly. They raised up the statue on a litter called *Chacté* and carried it with devotion, while the crowd executed around it certain war dances called *Holcan-Okot*, *Batel-Okot*. They carried at the same time, to the leaders and the principal citizens, their drink composed of three hundred and twenty-four grains of burnt corn, as before.

"Arrived at the house of the chief they placed the statue facing that of *Kinch-Ahau*, and presented to it the customary offerings, which they divided afterwards as at the last time. They offered to him bread made in the form of the yolk of an egg, and others like the hearts of deer, and another composed with diluted spice. There were, as ordinarily, good men who drew blood from themselves by piercing their ears and anointing with it the stone of the idol named *Chacan-Cantun*.¹

"Here they took small boys and forcibly pierced their ears, making incisions on them with knives. They guarded this statue until the end of the evil days; meanwhile they burned before it their incense.

"When these days were passed they carried it to the north side, where they were to receive it the next year, and deposited the other in his temple, after which they returned home to prepare for the ceremonies of the new year. They believed that if they neglected to celebrate the aforesaid ceremonies they would be exposed to great evils of the eyes.

¹ Doubtless intended for *Chac-Acantun*.

"This year, of which the dominical letter was Muluc and in which reigned *Bacab-Canzianal*, they regarded as fortunate; for they said that this was the greatest and best of the gods Bacab; also they made him the first in their prayers. With all this, however, the demon inspired them to fabricate an idol named *Yax-Coc-Ahmut*, which they placed in the temple, after having taken away the old statues; they set up in the court which is towards the temple a heap of stones, on which they burnt the incense with a pellet of resin or milk (*kik*), invoking the idol and asking of him deliverance from the misfortunes of the present year. These calamities were the scarcity of water, the abundance of shoots in the maize, and other things of the same kind. As a remedy for these evils the demon commanded them to offer up squirrels and a cover of cloth without embroidery, woven by the old women, whose office it was to dance in the temple in order to praise the god *Yax-Coc-Ahmut*.

"They threatened them still more with a crowd of other misfortunes and evil signs relative to this year, although it was considered fortunate, if they did not accomplish the duties which the demon imposed on them; one among others was a feast with a dance, which they executed mounted on very high stilts, and a sacrifice which they offered of the heads of turkeys, of bread, and of drinks of maize. It was also imposed on them to present images of dogs in baked earth, carrying bread on the back. The old women were obliged to dance with these images in their hands, and to sacrifice to the god a small dog with black spots, and which was still virgin. Those who were the most devoted to this ceremony were to draw blood from the animal and to anoint with it the stone of the god *Chac-Acantum*. These rites and this sacrifice seemed to be very pleasing to the god *Yax-Coc-Ahmut*."

"XXXVII.—*Sacrifices of the new year at the sign of Yx—Sinister prognostics; how they prevented those results.*

"The year of which the dominical letter was *Yx* and the omen *Zac-Ciui*, the election of the chief who celebrated the feast being finished, they formed the image of the god called *Zac-u-Uayeyab* and carried it to the piles of stone where they had left the other, the year before. They mod-

eled a statue of the god *Yzamna* and placed it in the house of the chief, after which, by a road ornamented according to the custom, they returned devoutly to the image of *Zac-u-Uayeyab*. On their arrival, they perfumed it with incense as they had done before, and there cut off the head of a fowl. The image having been afterwards placed on a litter called *Zachia*, they carried it devoutly, accompanying it with dances called *Alcabtan-Kam-Ahau*. They carried their usual drink on the way, and arriving at the house the image was placed in order before that of *Yzamna* and they made their offerings, to divide them afterwards; before the statue of *Zac-u-Uayeyab* they presented the head of a turkey, patties of quails, different drinks, etc.

"As formerly, there were among the spectators some who drew blood from themselves, with which they rubbed the stone of the god *Zac-Acantun*. In this manner they guarded the idols during the days preceding the new year, and incensed them according to their custom until the last day; then they carried *Yzamna* to the temple and *Zac-u-Uayeyab* to the west of the city, leaving it there until the following year.

"The misfortunes to which they were exposed this year, if they happened to neglect these different ceremonies, were fainting fits, swoons, and diseases of the eye. They considered it as a year unfortunate as to bread, but abundant in cotton. It was this which they signalized with the character *Yx*, and in which the *Bacab Zac-Civi* reigned, who foretold nothing very good; according to their belief, the year must bring calamities of all sorts, a great want of water, days when the sun would shine with excessive heat which would dry up the fields of maize; the consequence would be famine; from famine arose robberies and from robberies slavery for those who rendered themselves guilty. All this would naturally be the source of discord and internal wars among the citizens and among the towns. They believed that in the year marked by this sign there also generally happened changes among the princes or the priests, in consequence of the wars and dissensions.

"Another omen which they also held, was that some of those who sought to gain authority would not arrive at their end. This year was also sometimes signalized by an irruption of locusts, the consequence of which would be famine and the depopulation of a large number of locali-

ties. In order to remedy these calamities, which they feared entirely or in part, they made, at the instigation of the demon, the statue of an idol named *Kinch-Ahau-Yzamna*; they placed it in the temple, where they offered to it all kinds of incense and oblations, drawing their blood and sprinkling with it the stone of the god *Zac-Acantun*. They executed different dances, the old women dancing as usual; at this feast they formed anew a small oratory to the demon; they assembled there to offer sacrifice to him and to give him presents, and finished with a solemn orgie, where every one became intoxicated, for this feast was general and obligatory. There were also some fanatics who, of their own accord, and through devotion, made another idol, like that which is mentioned above, which they carried into other temples, making it offerings and intoxicating themselves in its honor. They regarded these orgies and sacrifices as very agreeable to their idols and as preservatives capable of preventing the misfortunes with which they believed themselves threatened."

"XXXVIII.—*Sacrifices of the new year at the sign of Cauac—Evil prognostics prevented by the fire dance.*

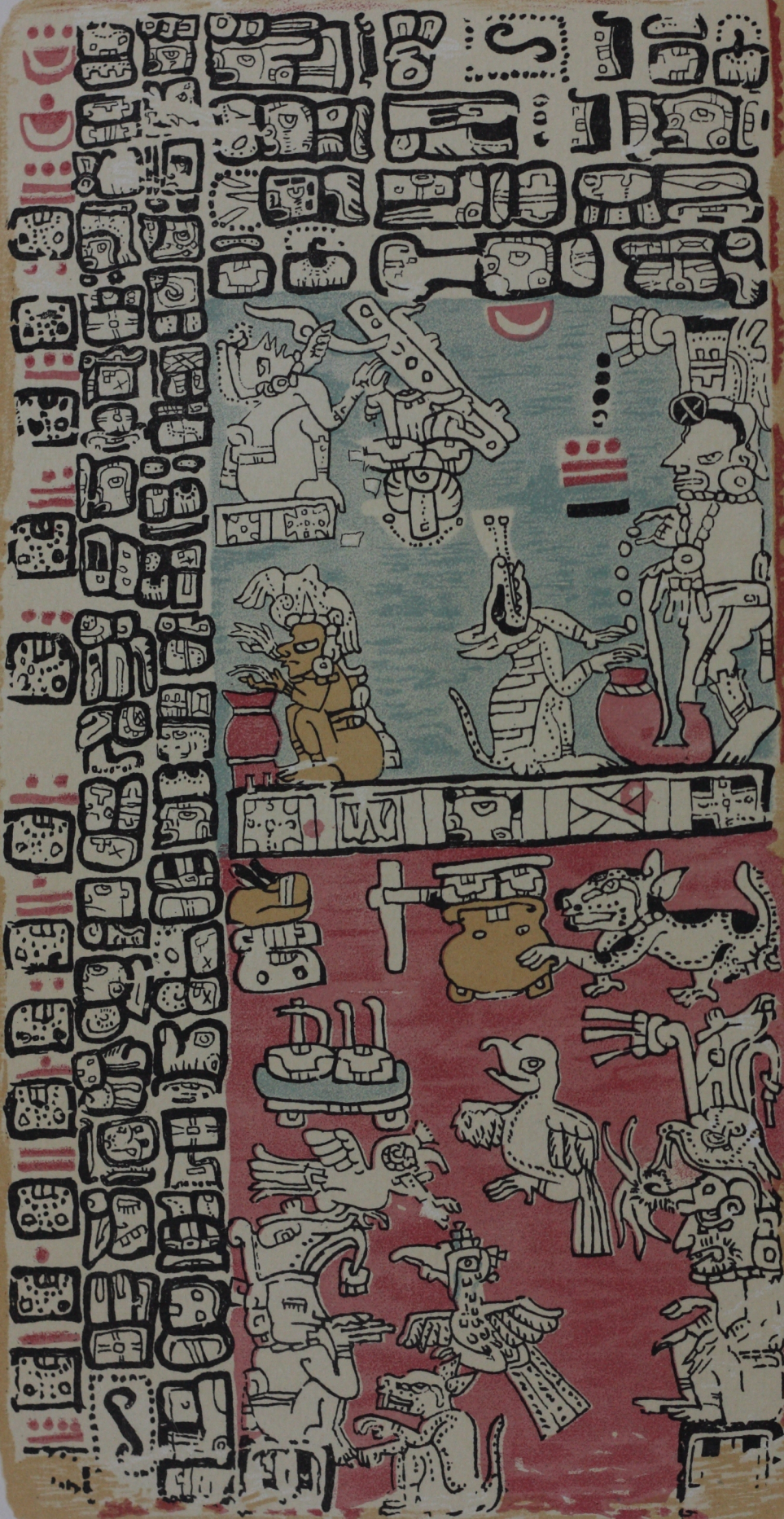
"This year, of which the dominical letter was *Cauac* and the omen *Hozanek*, after they had elected a chief of the ceremonies, they formed, in order to celebrate it, the image of the god *Ek-u-Uayeyab*; they carried it to the piles of stone at the west entrance, where they had left the image of the year before. They made at the same time the statue of the god called *Uac-Mitun-Ahau*, which they placed, as usual, in the most convenient spot in the chief's house. From there they went together to the place where they found the image of *Ek-u-Uayeyab*, having taken care previously to ornament the road; arriving there, the nobles and priests incensed this image, after their custom, and cut off the head of a fowl. When this was finished, they took the statue on a litter called *Yaxek* and placed on its shoulders a gourd with a dead man and, besides, the ashes of a bird which they called *Kuch*, as a sign of great mortality; for this year was considered very unfortunate.

"They afterwards carried it about in this manner, with devotion mingled with sadness, executing several dances, among which there was one

like the *crottees*, which they called *Xibalba-Okot*, which signified dance of the demons. In this interval the cup-bearer arrived with the drink for the nobles, which they drank in the place where the statue of *Uac-Mitun-Ahau* stood *vis-à-vis* with the image of which they had the care. Immediately they commenced the oblations, the perfuming, and their prayers; a great number drew blood from different parts of their bodies and anointed with it the stone idol called *Ekel-Acantun*. Thus passed the unfortunate days, after which they carried *Uac-Mitun Ahau* to the temple and *Ek-u-Uayeyab* to the south entrance, where they left it until the following year.

"This year, signalized by the character Cauac, and in which the *Bacab-Hozanek* rules, besides the plague with which it was threatened, was particularly regarded as fatal; they said that the extreme heat of the sun destroyed the fields of maize, without considering the multiplication of ants and birds that devoured the remainder of the seed; however, they added, these calamities need not be entirely general, there were some places where subsistence could be obtained, although with great difficulty. To prevent these calamities they made, at the instigation of the demon, four idols, named *Chichac-Chob*, *Ekbalam-Chac*, *Ahcan-Uolcab*, and *Akbuluc-Balam*; after having placed these together in the temple, where they perfumed them as usual, they presented to them two pellets of resin named *kik*, to be burned, also iguanas, bread, and a miter, with a bouquet of flowers and a stone which they considered of great value. Besides, they raised, for the celebration of this feast, a large arch of wood in the court, filling it with wood above and on the sides in order to burn, leaving in it, however, gateways for entering in and going out. Then, the greater part of the men took each one a bundle of long dry sticks and, while a musician mounted on the top of the funeral pile sang and beat the tambour, all danced with much order and devotion, entering in and going out, one after the other, under the arch. They continued to dance in this manner until evening, when, leaving their bundles of sticks, they went home to rest and refresh themselves.

"When night fell they returned, accompanied by a great crowd; for this ceremony was regarded with great respect among them. Each one taking then his bundle, lighted it and put the fire on the funeral pile, which



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immediately caught fire and burned rapidly. As soon as there was only one brand left burning they announced it to the throng, and those who had danced before assembled together and attempted to cross it, some passing over without injury and some being slightly or seriously burned, imagining that thus they prevented the plague and the anger of the gods, and to avert the evil omens of the year, in the belief that nothing could be more conciliating to their gods than this kind of sacrifice.

"This finished, they returned home to drink and intoxicate themselves; for this was required by the custom of the feast and the heat of the fire."

If we turn now to Plates 25, 26, 27, and 28 of the Dresden Codex and study them carefully, I think we shall find enough there to warrant us in deciding that they are intended to represent these four festivals.

In the first place, it is apparent that these four plates, which are copied on our Plates V, VI, VII, VIII, all relate to the same subject, and that they are quite different from those which precede or follow them.

In the second place, the left-hand day-column of each plate contains but two days, and in each case these are the last two of the intercalated days; those on Plate 25 (Pl. V) being Eb and Ben, the last two days of the Muluc years; on Plate 26 (Pl. VI), Caban and Ezanab, the last two of the Ix years; on Plate 27 (Pl. VII), Ik and Akbal, the last two of the Cauac years; and those on Plate 28 (Pl. VIII), Manik and Lamat, the last two of the Kan years. A fact worthy of note in this connection is that each of these days is repeated thirteen times, the exact number of each of these years in a cycle.

In the third place, we see in the lowest compartment of each plate the priest holding in his hand a headless fowl; agreeing exactly with Landa's words, "*degollavan una gallina y se la presentavan o offrecian*"; "they beheaded a fowl and presented it as an offering."

In the upper division of each we see the chosen assistant with the head and tail of the Chac, bearing on his back the newly-formed image on his march to the heap of stones at the border of the village, or to the house of the selected chief.

In the middle division we see the priest burning incense, in order, as was their custom, to drive away the evil spirit; the sign or glyph "Ik" in

the midst of the flame renders almost certain the correctness of this interpretation.

This agreement in so many particulars between these plates and Landa's statements is certainly sufficient to warrant us in assuming that the two refer to the same things; that is, to the festivals held during the *Uayeyab haab* or closing days of the different years.

Before attempting to show the relation these plates of the Dresden Codex bear to those of the Manuscript Troano, it will be necessary for me to ask the reader to examine them carefully as I enter into more particular details.

It is apparent from Landa's language that the festival of the last days of one year was intended as a celebration of the new or incoming year; that is to say, the festival of the last days of the Kan year was intended as a celebration of the incoming Muluc year, and, in fact, did not close until the first or second day of the latter. This being the case, we presume that the plate containing the last two days of the Kan year, for example, represents the commencement of the Muluc year, and that some, at least, of the figures and characters shown on it refer to that year. Following up this idea, I conclude that Plate 25, on which the days are Eb and Ben, the last days of the Muluc year, refers to the commencement of, and may properly be called the plate of the Ix years; that Plate 26 refers to the beginning of the Cauac years, Plate 27 to the Kan years, and Plate 28 to the Muluc years.

Taking for granted that this conclusion is correct—which I think few if any will doubt—let us see what further can be deduced from it.

Landa, Cogulludo, and Perez tell us that each of the four dominical days was referred by the Indians to one of the four cardinal points. As the statements of these three authorities appear at first sight to conflict with each other, let us see if we can bring them into harmony without resorting to a violent construction of the language used. Perez's statement is clear and distinct, and as it was made by one thoroughly conversant with the manners and customs of the natives, and also with all the older authorities, it is doubtless correct.

He says, "the Indians made a little wheel in which they placed the initial

days of the year. *Kan* at the east, *Muluc* at the north, *Gix* or *Hix* at the west, and *Cauac* at the south, to be counted in the same order.”¹

The statement of Cogulludo, which agrees substantially with this, is as follows: “They fixed the first year at the east, to which they gave the name *Cuch-haab*; the second at the west, and called it *Hiix*; the third at the south, named *Cauac*, and the fourth, *Muluc*, at the north.”

Turning now to Landa’s work (*Relac. des Cosas*, §§ XXXIV), we are somewhat surprised to find the following language: “The first of these dominical letters is *Kan*. The year having this character was the first, and had for its sign the *Bacab*, the other names of which were *Hobnil*, *Kanal-Bacab*, *Kan-pauah-tun*, *Kan-xib-chac*. They placed this on the south side. The second letter is *Muluc*, which is placed on the eastern side, and this year has for its sign the *Bacab*, which is called *Canzienal*, *Chacal-Bacab*, *Chac-pauah-tun*, *Chac-xib-chac*. The third of these letters is *Yx*. The sign during this year was the *Bacab* named *Zac-zini*, *Zacal-Bacab*, *Zac-pauah-tun*, *Zac-xib-chac*, and it signified the northern side. The fourth letter is *Cauac*; the sign of this year is the *Bacab* called *Hozan-ek*, *Ekel-Bacab*, *Ek-pauah-tun*, *Ek-xib-chac*, which is assigned to the western side.”²

This, as we see, places *Kan* at the south, *Muluc* at the east, *Ix* at the north, and *Cauac* at the west, conflicting directly with the statements made by Cogulludo and Perez. If we turn now to the descriptions of the four feasts as given by Landa, and heretofore quoted, I think we shall find an explanation of this difference. From his account of the feast at the commencement of the *Kan* year (the intercalated days of the *Cauac* year), we learn that first they made an idol called *Kan-u-uayeyab*, which they bore to the heap of stones on the south side of the village; next they made a statue of the god *Bolon-Zacab*, which they placed in the house of the elected chief,

¹ “Estos indios pintavan una rueda pequeña, en la cual ponian los cuatro geroglificos de los dias con que principiava el año, *Kan* al oriente, *Muluc* al norte, *Hix* al poniente, y *Cauac* al sur, para que se contasen en el mismo orden.” (*Cronologia Antigua*, § VII.)

² “La primera pues de las letras dominicales es *Kan*. El año que esta letra servia era el aguero del *Bacab* que por otros nombres llaman *Hobnil*, *Kanal Bacab*, *Kan-pauah-tun*, *Kan-xib-chac*. A este señalavan a la parte de medio día. La segunda letra es *Muluc* señalavanle al oriente, su año era aguero el *Bacab* que llaman *Canzienal*, *Chacal Bacab*, *Chac-pauah-tun*, *Chac-xib-chac*. La tercera letra es *Yx*. Su año era aguero el *Bacab* que llaman *Zaczini-zacal-Bacab*, *Zac-pauah-tun*, *Zac-xibchac*, señalavanle a la parte del norte. La quarta letra es *Cauac*; su año era aguero el *Bacab* que llaman *Hozanek*, *Ekel-Bacab*, *Ek-pauah-tun*, *Ek-xib-chac*; a este señalavan a la parte del poniente.”

or chief chosen for the occasion. This done, they returned to the idol on the southern stone heap, where certain religious ceremonies were performed, after which they returned with the idol to the house, where they placed it *vis-à-vis* with the other—just as we see in the lower division of Plates XX–XXIII of the Manuscript Troano. Here they kept constant vigil until the unlucky days (*Uayeb-haab*) had expired and the new Kan year appeared; then they took the statue of *Bolon-Zacab* to the temple and the other idol to the heap of stones at the *east* side of the village, where it was to remain during the year, doubtless intended as a constant reminder to the common people of what year was passing.

Similar transfers were made at the commencement of the other years; at that of Muluc, first to the east, then to the house, and then to its final resting place on the north side; of Ix, first to the north, then to the west;¹ of Cauac, first to the west, then to the south.

This movement agrees precisely with the order given by Perez; and the final resting places of the idols for the year being the cardinal points of the dominical days where he fixes them; that is, Kan at the east; Muluc at the north; Ix at the west, and Cauac at the south.

There is therefore no real disagreement between the authorities on this point.

If we turn now to Plate VI of the Manuscript Troano we find these four characters in the spaces of the upper and middle divisions. No. 3

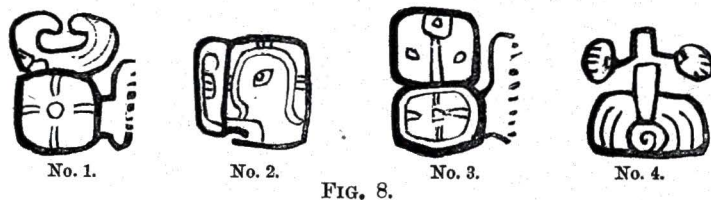


FIG. 8.

is in the upper left-hand corner; No. 2 in the lower left-hand corner; No. 1 in the lower right-hand corner, and No. 4 in the upper right-hand corner. We find the same characters placed in the same order in the upper and middle divisions of Plate VII and the upper division of Plate VII*. They are also found in the corners of the spaces of Plates XVIII*, XXVI, XXIX*, XXX*, XXXI*, and XXXII*, but not always in the same order.

¹ Brasseur makes a mistake in his translation, giving east instead of west.



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Turning to the "title page" of the same manuscript, we find that these are the first four characters in the second transverse line.


The position of the characters on the plates mentioned led me, at an early stage of my investigations, to believe they were intended to denote the four cardinal points; but the fact that the order was not always the same, and the apparent impossibility of finding words in the Maya lexicon agreeing with Landa's letter characters and at the same time denoting the cardinal points, induced me for a time to doubt the correctness of this theory; but the discovery of the signification of these four plates of the Dresden Codex induces me now to believe that this first impression was correct. It is possible these characters have also some other signification, but that they are intended to designate the cardinal points I can no longer doubt.


In the last or lowest transverse line of characters on Plate 27 of the Dresden Codex (our Plate VII)—the one relating to the close of the Cauac and commencement of the Kan years—we find the character No. 1 (Fig. 8) in close proximity with another character, which I will presently show signifies "stone" or a "heap of stones." If this indicates a cardinal point it must be south or east; if it refers to the place to which the idol was first taken it would then signify south, if to its last resting place it would then signify east. In the corresponding line of Plate 28 (our Plate VIII) we find character No. 2; in that of 25 (our Plate V), character No. 3; in that of 26 (our Plate VI), character No. 4. If we suppose these characters to indicate the final resting places of the idols then character No. 1 would signify east, 2 north, 3 west, and 4 south; but if the first resting place, then character No. 1 would signify south, No. 2 east, No. 3 north, and No. 4 west. That Nos. 1 and 3 relate to the places of the rising and setting of the sun, I think is evident from the following facts:

First. That these are the only two out of the four characters which have anything similar in them.

Second. The lower half of each is precisely like the lower half of Landa's symbol for the month Yaxkin, from which we may infer that it signifies *kin*, "sun." This also agrees with the fact that the Maya words for east and west (*likin*, *chikin*) both end with "kin," which signifies sun or day. Although Landa gives this figure without the wing as the character

for the letter "T," I think there can be no doubt that when combined with the side wing it signifies "sun" or "day," both words being the same in the Maya language. I find that Brasseur and Dr. Valentini¹ reached the same conclusion respecting this character, which bears some resemblance to the

Mexican symbol for day , and a still closer resemblance to that for

year.  I am satisfied, therefore, that these two characters refer to

the east and the west, and hence that the only point left for us to decide is, which appertains to the east and which to the west. This I think may be determined from the plates of the Dresden Codex. If No. 1 on Plate 27 must there be either south or east, and our reasoning showing that it could not be either south or north be correct, it follows that it must signify east, the direction assigned to the Kan year, and that here it refers to the final resting place of the idol *Kan-u-Uayeyab*.

If I am so far correct then character No. 1 (Fig. 8) signifies east, No. 2 north, No. 3 west, and No. 4 south.

If we turn now to Plates 46, 47, 48, 49, and 50 of this Codex we find on each, two square groups or masses of characters consisting of either five or six transverse lines and four columns. One transverse line of each group is composed of these four characters, which, as I believe, are here used to indicate the cardinal points. Assuming my interpretation of them to be correct, it will be necessary to read these lines from right to left to obtain the order given by Perez; for example the lines on these plates read, as the characters stand, thus:

First group, Plate 46.—North, east, south, west.

Second group, Plate 46.—West, north, east, south.

First group, Plate 47.—North, east, south, west.

Second group, Plate 47.—West, north, east, south.

First group, Plate 48.—North, east, south, west.

Second group, Plate 48.—West, north, east, south.

And the same on Plates 49 and 50. Reading these from the right to the left we have the order given by Perez, but the initial days will be as

¹Also Rosny.

follows: for the groups marked "first," Ix, and for those marked "second," Cauac, and the order in which they succeed each other, as follows:

1st. Ix, Cauac, Kan, Muluc.

2d. Cauac, Kan, Muluc, Ix.

The first agrees exactly with the order of the days referred to by Plates 25–28 of this Codex, and the second precisely with Plates XX–XXIII of the Manuscript taken in reverse order to the paging. The first also agrees exactly with the order in which the first four characters in the second line of the title page of the Manuscript come, if read from left to right as the numbers above them indicate. If we turn to Plate XXXII* of the last-mentioned Manuscript¹ we will see that the left-hand column of the upper division consists of the four dominical days placed in the following order, reading from the top downward: Ix, Cauac, Kan, Muluc, precisely in the order of the four plates of the Dresden Codex; we also find in the space of this division the characters which I have supposed mark the cardinal points, but placed as shown here.

West.	East.
North.	South.

Landa, speaking of the ceremonies connected with the making of idols of wood, remarks (p. 308) that "they offered incense to the four gods called *Acantunes*, which they had placed at the four parts of the world" (the four cardinal points). But these were of stone, as we have already learned from the extracts referring to the festivals of the supplemental days.

In the lowest division of Plate XXV* there are four idols over which are these four characters; the first, or left-hand one, is the headless figure seen on Plate XXIII, the character over it that which denotes the west; the second the spotted dog seen on Plates XX and XXI, the character over it signifies the north; the third a monkey, possibly the same as seen in the lower division of Plate XXI, the character over it the east; the fourth a bird, the character over it the south.

¹ Roman numerals refer to the plates of the Manuscript; Arabics to those of the Codex.

There are other plates on which these characters appear to indicate the cardinal points, but what has been given is sufficient to show the evidence upon which I base my opinion as to the meaning of the characters. The presence of these on Plates 25-28 of the Codex, in the manner there given, is perhaps the surest guide as to the quarters to which they respectively belong; the fact they are so often found occupying the four corners of the spaces of the plates of the Manuscript is what leads us to suspect that they indicate the cardinal points. The chief, and, so far as I can see, the only objection to this interpretation is the occasional change of order in the spaces; but, as we have seen, this seldom, if ever, occurs where they are in a line. The chief doubt is as to the points assigned them.

If my explanation is correct, then it is possible that the Maya words which they represent are as follows:

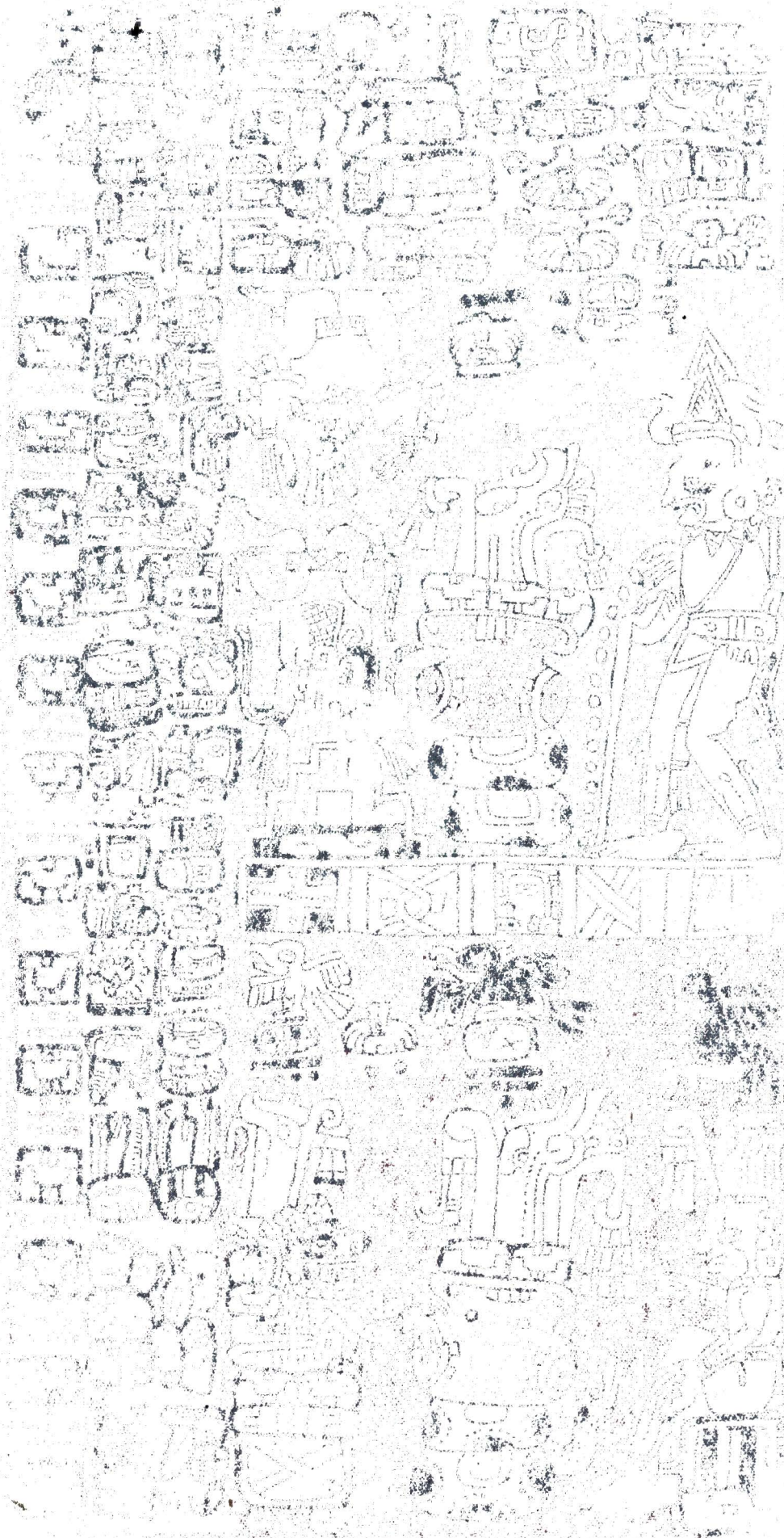
No. 1 (Fig. 8), *Likin*, "east." No. 2, *Xaman*, "north."

No. 3, *Chikin*, "west." No. 4, *Ma-yam*, "the middle of the earth" (south), or *Nohol*, "south."

The inverted character for Ahau in No. 3, and that for Manik in No. 1, may raise an objection in the minds of some to this interpretation, but the reader must bear in mind that I do not yet insist that these characters are the symbols for the words above given. They may refer to priests, utensils, or other things connected with or used during religious ceremonies; for example, No. 3 may be the symbol for *Ahkin*, "priest," No. 4, for *Mayac*, "table"; No. 2 for *Am*, the sacred stone used in casting the horoscope, &c., but at the same time these, by the relative positions they occupy during ceremonies, may serve to indicate the cardinal points, and hence the days. This being the case, the characters, by long usage for this purpose, would ultimately become the symbols of this secondary signification.



Referring again to Landa's account of the festivals, heretofore quoted, we observe that one of the idols was finally placed on the heap of stones at the margin of the village. In the lowest division of each of the plates—25-28 of the Codex—we see an idol resting on a character like this (Fig. 9); the idol on Plate 25, with a head somewhat similar to that of the Tlaloc





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figures in the Manuscript; those on Plates 26, 27, and 28 apparently part of the trunk of a tree clothed, and around which a serpent is coiled. From this fact I infer that the character signifies a "stone" or "stone-heap." The same character is also found under the figures placed opposite each other in the lower divisions of Plates XX-XXIII of the Manuscript, the only exception being that under the left figure in the lower division of Plate XXII. I had, from a study of the character itself, come to the conclusion, previous to the discovery of the signification of the four plates of the Codex, that it was the symbol for stone, especially for the stone used in marking the divisions between periods of time. I was led to this conclusion by a careful comparison of Landa's symbol for the month Pax with other similar characters in the Manuscript. If I am correct in this opinion, then the character probably represents one of the two Maya words *Piz*, signifying "a stone serving to form the divisions in a Katun or cycle," or *Ppic*, "stones placed one upon another, serving to count the intervals in the cycles." We find this character, as before remarked, in the lower transverse lines of the plates of the Codex, in close proximity to the symbols of the cardinal points, which agrees very well with Landa's statement.

In the third or lowest division of Plate 27 we see the figure of a *fish* on two Kans, which are in a vessel. This probably represents the "angel" placed on the "palo" or litter "as a sign of water;" though it is possible it simply denotes one of the offerings made to the idol before which it is placed. It is worthy of note that a similar figure is found in the second character of the fifth line of the title-page of the Manuscript; but, in this case, it is in the column which has the symbol for "south" as its second character. As Plate 27 of the Codex relates to the close of a Cauac year, as well as to the commencement of a Kan year, the presence of this figure in these places agrees very well with the interpretation above given.

Although we have by no means exhausted our explanation of the four plates of the Codex, we are now prepared to compare them with the four of the Manuscript, and will proceed to make the comparison, reserving what further interpretations we have to give of them to a subsequent part of our paper.

There are four plates in each, relating to the four dominical days or

year bearers, and the days used to designate the years are repeated thirteen times on each plate; in the Codex, the last two days of the year are selected for this purpose; in the Manuscript the first only, but even here we see the symbols of the terminal days in the transverse line between the two spaces.

The idols in each are placed on the same character—that which I have interpreted as signifying the “stone” or “stone heap” used to mark the divisions of time. The serpent appears in three plates of each work, and is wanting in the fourth, the latter in both cases being that which relates chiefly to the Ix years. At the bottom of the lower division of Plate 28 (Codex) we see a figure resembling the leg of a deer bound by a double cord; a similar figure appears at the upper left-hand corner of the lower division of Plate XX (Manuscript), our Plate I. I think it is evident that Brasseur was right in interpreting this as the symbol of the Maya word *hau*, “the quarter of a deer or other animal,” from Landa’s statement in his account of the festival of the Kan year—“*davan al sacerdote una pierna de venado*,” “they gave the priest a leg of venison.”

It is true that this figure is found, in the Codex, in the plate supposed to relate to the Muluc year, while in the Manuscript it is in that which applies to the Ix year, and that in Landa it is mentioned in connection with the ceremonies of the Kan year; but this is not sufficient to destroy the value of these coincidences in our effort to interpret these plates. For, in the first place, there is no reason for supposing the Codex relates to the same time and place as the Manuscript; in the second place, each of the plates in both works appears to refer, in part, to two years; in the third place, Landa’s description is not sufficiently exact and minute to make the comparison full and complete. I may also add that, while the plates of the Codex appear to relate only to the ceremonies of the supplemental days, those of the Manuscript apparently refer to other festivals, especially those held at the close and commencement of long periods of time. For example, what is symbolized by the two left-hand figures of the upper division of Plate XXII of the Manuscript appears to be represented in Plate 30 of the Codex.


The Uayeyab idols of the two works are certainly different from each other, though I think it very doubtful whether the figures in either are true representatives of the images; possibly those on the Codex plates are.

A careful comparison of the chief figure in the lowest division of Plate 27 of the Codex with the left-hand figure in the lower division of Plate XXIII of the Manuscript convinces me that the two are intended as symbols of the same idea or as representatives of the same person. That the former is essentially different from the corresponding figures on Plates 25, 26, and 28 is apparent to any one who will take the trouble to compare them. The cape is here in front instead of on the back. The anklets and bracelets—which appear to be used as tokens of caste—are different from the others. There is also a wide variation in the head-dress, which, together with the exposed bone of the lower jaw, the docked nose, and lines of dots on the limbs, indicate that this priest is here representing Death or the god of Death. A cursory examination of other plates of both works where the same figures will be found is sufficient to satisfy any one of the correctness of this opinion. I refer the reader who may have the works at hand to Plates XXX, XXXIV, III*, XXII*, XXX*, XXXII* of the Manuscript, and also Plates 6, 11, 12, 18, 45, and 53 of the Codex.

A somewhat similar figure is borne on the back of the Chac in the upper division of Plate 28 of the Codex, on which we see the same bracelets, head-dress, exposed jaw-bone, and lines of dots. Landa states, as will be seen by reference to his account of the festivals of the intercalated days heretofore given, that at the commencement of the Cauac year they carried, among other things, a “dead man.” According to the interpretation given, Plate 27 refers to the close of the Cauac and commencement of the Kan year, and 28 to the close of the Kan and commencement of the Muluc year, which would place this ceremony in the year following that given by Landa.

Referring now to Plate XXIII of the Manuscript, which relates in part at least to the Cauac years, we see in the lower left-hand corner of the lower division a white figure with the same anklets and bracelets; and, although portly and apparently clothed with flesh, the ribs denoting death are plainly marked. A hand is stretched out as if to catch the skull, which is dropping from the head-dress that arises out of the earthen vessel.

I note the following additional items in which they correspond; in the

canopies, or whatsoever they may be, behind the sitting priests in the middle divisions of the four plates of the Codex we observe this figure , a St. Andrew's cross, surrounded by the usual circle—those on Plates 26 and 28 with the cross white on a black ground. Precisely the same figures are found on three of the plates of the Manuscript, those on XX and XXIII with black ground and white cross.

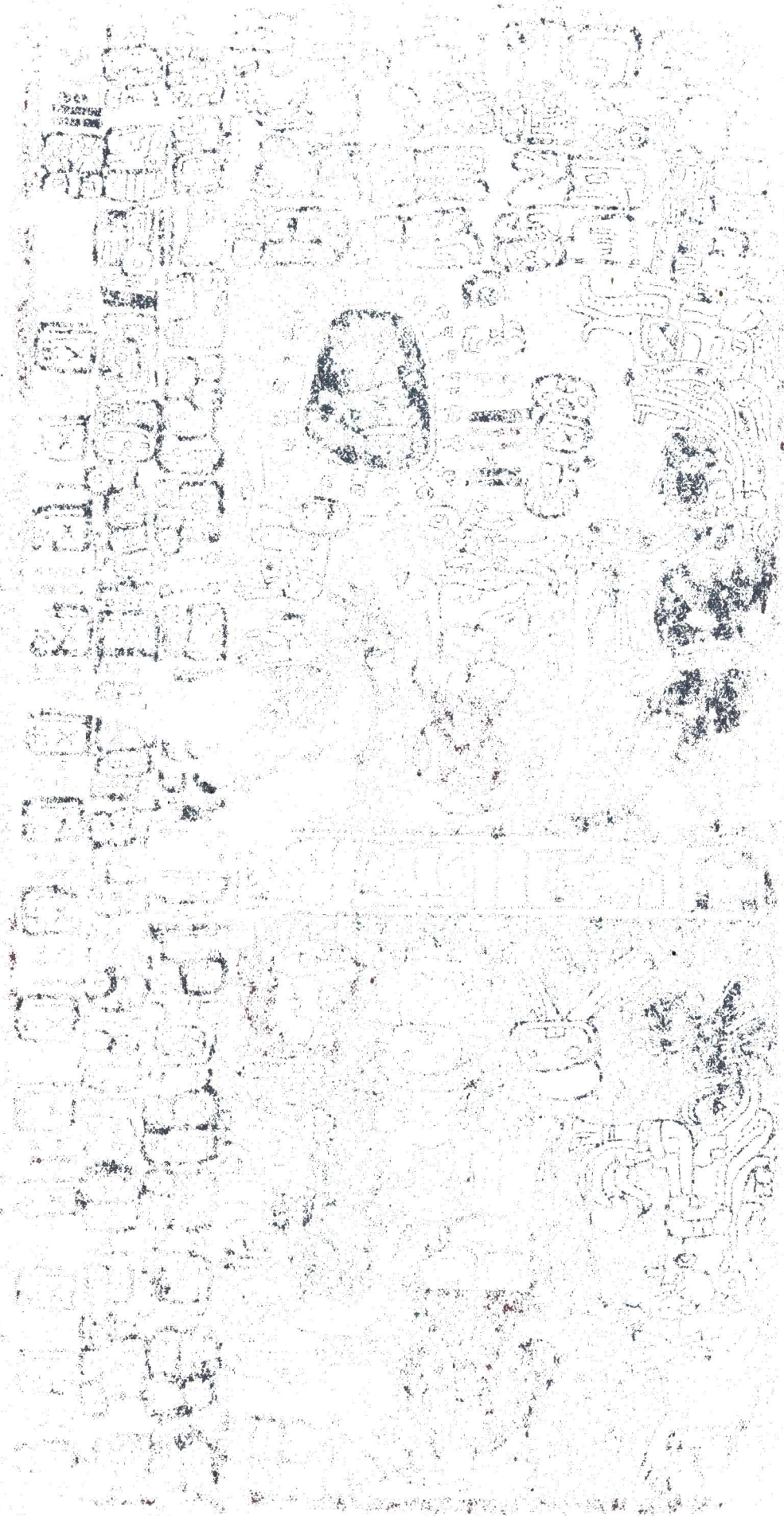
In the lowest transverse line of characters of each of the four plates of the Codex, we find, as heretofore remarked, a symbol of one of the cardinal points. The same thing is true of the plates of the Manuscript, as will be seen by examining the lowest transverse line above the upper space.

The head of the Ara is seen on Plate 28 of the Codex in the same space (lowest division) as the bound "leg of venison." The two are in the Manuscript (Plate XX, lower division), but here the whole bird is figured.

In the upper division of Plate XX we notice issuing from the mouth of the dog two lines of dots each terminating in a little circle or circular dot. In the lower division of Plate 25 of the Codex we see two similar dotted lines arising from the severed neck of the bird. In both works these peculiar lines are on the IX plates only.

Such are the chief resemblances between the plates of the two works. Some, it is true, are those of common occurrence, and taken alone would not be sufficient evidence to indicate that the plates relate to the same subject: but when we take all the resemblances into consideration, especially the more important ones mentioned, I think there can be but little doubt left upon the mind of any one that these four plates of the two works, in great part, at least, relate to the same subject—the festivals described by Landa as occurring at the close of the years. To which year or years a given plate refers I admit is a point in regard to which there is yet some uncertainty. This necessarily leaves us in some doubt respecting the proper assignment of the cardinal or direction symbols; but this fact does not affect the general correctness of my conclusions as to the subject-matter of these plates and the meaning of the figures and characters.

Leaving the further consideration of the plates of the Codex to a future page, I will now call attention to other figures and characters on the four





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plates of the Manuscript and give the signification of them so far as I have been able to make this out. I will start with the assumption that the conclusion drawn from the comparison just made—that they relate in part at least to the festivals of the supplemental days—is correct; and as affording additional evidence, I first call attention to the following facts: Landa, in his account of the ceremonies relating to the Muluc year, remarks that “the devil commanded them to offer squirrels and a cloth cover (or cloth ornament), without embroidery, woven by the old women whose office it was to dance in the temple for the purpose of appeasing the god *Yax-coc-Ahmut*.”

In the upper division of Plate XXI (that relating to the Muluc year) we see this cloth, which we judge from the figure was to be worn by the priests. It is plain and without ornamentation, save what is on the strips at the side.

The same account, as will be seen by reference to the quotation in full heretofore made, mentions that “among other things performed at this festival was a ballet or dance executed on very high stilts” (*en muy altos zancos*). In the upper division of the same plate (XXI) we see one of the dancers on stilts.

It also states that “they were required to present dogs of burnt clay bearing bread on the back”; that “the old women were obliged to dance with these dogs in their hands, and to sacrifice to the god a little dog with black shoulders.” In the lower division of the same plate we observe three figures of small unspotted dogs, two of which are seated on human feet, which is doubtless intended to denote that they are carried during the dance. To the right is another figure of a dog marked with large black spots, and bearing on its back the symbol of Ymix or Imix mounted on that of Kan.

It is true these figures do not agree exactly with Landa's description, as he does not appear to refer to the two classes of dog images—the plain and the spotted—but to the latter only. But we may expect this writer, who mentions these things more incidentally than otherwise, to be more or less confused where so many particulars are to be remembered, especially if his work was written in Spain, where he had necessarily to rely to a great extent upon his memory. But the fact that these figures are found on

the plate that relates to the Muluc years; the peculiarly marked dog, bearing these symbols on its back; the little dog images on the feet, together with the agreement in other particulars, are sufficient to warrant us in concluding that these figures relate to the ceremonies he describes. Taking the figures and statement together I conclude that the little plain dog-images, three of which are represented, were those carried during the dance, while the spotted one bearing the characters on its back—of which there is but a single figure—represents that which was to be sacrificed. In the collection of pottery made by Colonel Stevenson in 1880 among the Pueblos of New Mexico, are quite a number of plain little animal images, chiefly those of birds, which he informs me were used in like manner by the Indians of these pueblos.

If I am correct in this interpretation, we will then be warranted in concluding that the double character (Fig. 10) signifies "bread," doubtless



"bread of maize." Taken separately we know that the upper is used as the symbol of the day Ymix or Imix, and the lower of Kan; but the primary significations of these words, or rather the words

FIG. 10. that these symbols stand for, is somewhat doubtful. Perez gives no definition of the former, neither in his lexicon nor *Cronologia*. Brasseur gives the following signification in his *Vocabulary*—"Deep pit; issue from a focus or of the breast"; but in a note to the *Cronologia* (§ II) he makes this remark: "*Ymix*, written *Imox* in the Quiche Calendar, in that of Chiapas is represented under the image of a marine monster of a peculiar form; it is the *Cipactli* of the Mexican Calendar, given by Nuñez de la Vega, as the first father of the race of these countries." The latter (*Kan*) has several significations, such as "a cord or string of henequin," "yellow," "a certain measure," "red earth," "clay," &c. He also gives as other meanings, "increased," "elevated," "manifest," "consolidated," &c. But I judge from Perez's language that the ancient signification was somewhat uncertain.

The Maya word for "maize" is *Ixim*, and I am strongly inclined to believe that Imix is but a synonym, also that the symbol was originally used to signify this great food plant. I think it also probable that the symbol for Kan was used originally to represent the "grain" of corn, hence the gathered and stored corn or ears, and that the name was derived from the

yellow or golden color. On Plates XIX* and XX* of the second part of the Manuscript—lowest division—we observe women bearing burdens on their backs in baskets; the substance carried by three out of six is represented by Kan symbols, and is probably gathered maize.

It is worthy of notice that one of the names of their chief deity Zamna or Itzamna, is *Itzen-caan*, signifying the “dew of heaven,” or “substance from heaven.” *Itzen* and *Itzam* are given by the lexicons as equivalents, and *tzen*, and its derivatives, contains throughout the idea of food or that which sustains life. *Ixkan-Leox* was the name of a female divinity supposed to be the spouse of Zamna; the signification of the name, according to Brasseur, is “*Celle de la fronde jaune aux grains de mais*”; in other words, the “silk.” In the upper division of Plate 19 (Codex) is the figure of a woman bearing the same characters on her back, one above another, as on the Manuscript plate. Just behind her is the figure of a man or male deity, which I judge from the long beard to be Kukulcan, or Zamna, bearing on his back the same two characters. From these facts and others which might be mentioned I am satisfied there was an intimate connection in the minds of this people between maize and this deity.

The two symbols in this form (Fig. 11), and also in reverse order, sometimes with and sometimes without the accompanying characters over them, are of very frequent occurrence in the Manuscript and Codex. That characters similar to the accompanying ones here shown are used in the Mexican Codices to represent cakes of bread or tortillas is well known; whether they have the same signification in this connection is a point that will be discussed hereafter.



FIG. 11.

Our next step will be to determine, if possible, which of the figures shown on these plates represent the *Uayeyab* idols. As we have already shown, there were, according to Landa, four of these, as follows: *Kan-u-Uayeyab*, for the Kan years; *Chac-u-Uayeyab*, for the Muluc years; *Zac-u-Uayeyab*, for the Ix years, and *Ek-u-Uayeyab*, for the Cauac years. We may assume, I think, without any fear of being in error, that the left-hand figures in the lowest division of the four plates of the Codex are intended as representatives of these images. They are the only ones placed on the stone-heap

symbol; three of them are exactly alike, and to them the priests are offering the decapitated fowls.

Turning to the plates of the Manuscript we find the question more difficult to solve; first, because there are on each plate (except one) two figures seated on stone symbols; and second, because these figures are wholly different from those in the Codex. I think there can be no doubt that one of each of these pairs represents one of these idols. But which one? The one not seated on the symbol is that at the left of the lower division of Plate XXII. We may therefore assume that the white figure at the right with a sinuous line down the face, and seated on the stone symbol is the idol *Kan-u-Uayeyab* or *Chac-u-Uayeyab*; the former, if the ceremonies here shown refer to the commencement of the Kan year, the latter if they refer to the close. As the corresponding figure on Plate XXIII (Cauac year) bears on its head the Kan symbol it most likely represents the former, and that on Plate XXII the latter. The corresponding figure on Plate XXI varies considerably from the other two noticed; still there is sufficient resemblance to induce me to decide that it (the one at the right in the lower division) is the Uayeyab idol—*Chac-u-Uayeyab* or *Zac-u-Uayeyab*.

The figures on Plate XX present still greater difficulty, if possible, that on the right being wholly different from the others. As this plate refers to the Ix years we should expect this variation, having found such to be the case on the Codex plates, and would decide at once, notwithstanding this difference, that it represented the Uayeyab idol, were it not for certain facts to be noticed. During the festival of the Ix years one of the images made represented the god Yzamna or Itzamna. Whether this deity was identical with Kukulcan or not is a question in reference to which the authorities are undecided. If we assume they are identical, the beard on the figure at the right would lead us to conclude that it was intended to represent this deity. But, on the other hand, the bird with the protruded tongue seated on the head-dress of the figure at the left is one of the symbols of Quetzalcoatl, the equivalent of Kukulcan. We also observe that the Ara, the sun emblem, is immediately opposite the latter, toward which he is pointing his fingers, which is a well-known symbol of Itzamna. Taking all these facts into consideration, I conclude that the figure to the right is the Uayeyab idol,



FAC SIMILE OF PLATE 25 OF THE DRESDEN CODEX.

and that the one at the left represents Itzamna, whom I believe to be a distinct personage from Kukulcan. I have been unable to arrive at a satisfactory conclusion in regard to the opposite or left-hand figures on the other plates, except that on Plate XXIII, which I think represents the god of death.

We will now turn to the upper division of Plate XXIII and examine some of the figures contained in it. Near the left margin is the figure of a headless trunk marked with dotted lines and little circles; on it is the symbol of Caban and the figure of a machete. It is probable that this represents the body of the "dead man" which Landa says was carried during the festival of the Cauac years, as the dotted lines and circlets thereon correspond with that borne by the Chac in the upper division of Plate 28 of the Codex. As the festival of the Cauac years was observed during the closing days of the Ix years—those with which, according to the theory I have advanced, the lustres, ahaues, and cycles closed—I think it probable this figure is intended to signify the close of one of these periods, possibly the first, as this appears to be the idea signified in the Codex. I am fully aware of the difficulty of reconciling this explanation with the fact that this figure appears on the plate in the Codex which apparently refers to the Muluc years and is marked by the terminal days of the Kan years. But this fact will not warrant the rejection of my interpretation, as the error, if there is one, relates to the order in which I have arranged the years. I would also suggest that it is possible the calendars of the two works are not precisely alike—one may commence the series with a different year from that with which the other begins; in fact, the order of the plates in the two works seems to indicate this. It can scarcely be doubted that 25 of the Codex corresponds with XX of the Manuscript, yet that in the Codex is first while that of the Manuscript is the last of the four (the order here being, as I have shown, the reverse of the paging). The year in which the figure appears, according to the Manuscript, corresponds with Landa's statement, while that of the Codex does not. If we decide that the series of years commenced with Kan and ended with Cauac, the interpretation would still agree with the Manuscript and Landa, as then we would have to suppose that Plate XXIII refers chiefly to the close of the Cauac and commencement of the Kan years.

In the lower left-hand corner of the same division we observe the figure of a deity, with a fiery red face, marked as the symbol for Ahau, bearing in his hand a torch and on his head what appears to be two little wings. This I presume represents *Kinch-Ahau-Itzamna* (Kinch-Ahau, the lord of the mouth or eye of the sun or day), one of the idols made during the festival of the Ix years. Here it appears to be sinking out of sight below the western horizon, casting back its fiery rays as indicated by the torch. As it belongs to the Ix year, which is here brought to a close, it would of course be retired. The headless figure immediately above it, and the Caban or Cab which signifies "to descend" or "sink below," and the signification of the blue figure, as heretofore explained, all agree exactly with this interpretation. The wings [if such they be] on the head probably refer to the Ara, the sun token. The bird in the center, seated on the head-dress, may possibly represent or symbolize the "burnt bird," or "bird reduced to ashes" (the meaning of the original is very obscure), of which Landa speaks; the bill in the figure, it is true, is scarcely appropriate for a rapacious bird, which the *Kuch* appears to have been, but exact representations are not to be expected in this work.

The color appropriate to the Cauac year (the one assigned to the south), as indicated by the Maya word *Ek*, was black; according with this, the large figure at the right of the upper space, and the bird in the lower space, are of this color.

The serpent, we know, was a symbol used in the Mexican Calendar to denote a long period of time, especially the cycle of 52 years. It is also a prominent figure on these plates of the Manuscript, being found, in three of them, coiled under the clay vessels. (See both divisions of XXI, XXII, and XXIII.) Under each of the vessels in XXIII, and that of the upper division of XXII, it is in two coils; in the lower division of the latter the head is thrust out, apparently in compliance with the solicitation of the white personage to the right; on Plate XXI (both divisions) but one coil remains; and on Plate XX we see nothing more of it. What is it designed to represent on these plates? That it is a symbol of some period of time will scarcely be doubted; but what period?

Turning to the plates of the Codex, we find that it appears there also on but three out of the four, being absent in both cases on the page referring to the IX years. We also observe that on each plate of the Manuscript where the serpent appears the vessels bear Kan symbols.

It is evident, from what has already been shown, that the four plates in each work are intended to cover exactly one cycle. This is proven by the fact that on each the day symbols are repeated thirteen times. It is true that the period embraced by the plates of the Manuscript does not coincide with any one cycle, but it covers the thirteen different years of each of the four dominical days, giving them in regular order, thus making one complete cycle. The design in the Codex appears to be to indicate in a general manner the character of the feasts of the supplemental days only, and to show by the thirteen day-symbols that this is to be applied to all the years of the cycle; while the plates of the Manuscript are apparently designed to give the same general idea, but at the same time to refer to a specific period, and also that this period shall include the close and commencement of the two great periods; hence the years are specified in the latter, while they are not in the former; the latter also includes allusions to other festivals than those of the Uayeyab.

Taking for granted, then, that these plates are intended to cover one cycle, and that the serpent denotes a period of time, the natural presumption would be that it here represents a cycle, for, although we find evident allusion to the Ahau in these plates of the Manuscript, we see nothing of the kind in those of the Codex.¹

We might very reasonably suppose those on the plates of the Codex indicated the year, but a close inspection of that on Plate 26 will show that it differs considerably from the other two, is evidently in a dying condition, and is marked with the fatal dotted line. I can see no reason for this difference if they were used to denote the year, and, aside from this, the fact that each one of the idols around which they are coiled is crowned with four leaves, indicating the four dominical days, would seem to forbid this interpretation, which certainly cannot be applied to those in the Manuscript.

¹ The reader will understand that the word "plates" in this connection is to be understood as meaning only the four of which I have been treating.

If they refer to the cycle, then each coil will denote two Indications, a supposition with which the pyramid of four steps on Plate XXII (to which I will presently allude) agrees very well. A fact worthy of notice in this connection is that, proceeding with the pages in the order I have adopted, we find on XXIII, where Cauac is the ruling day, the two coils are complete; on the lower or closing division of XXII, where Kan is the ruling day, one coil is partially withdrawn; on XXI, where Muluc is the day, there is but one coil; and on XX, where Ix—the year with which the cycle closes—is referred to, there is none.

The most serious objection to this theory is that if any allusion to the Indications were intended there should be four coils instead of two, as there are four of these periods in a cycle. But the serpent may be used here only as the symbol of the cycle and the coils may have no particular signification; still I think they do have, as there are two to each on the Codex plates, and that they denote the two halves of the cycle. Landa mentions the fact that the two halves of the Ahau were specially noted by the Indians.

It is possible that on the Codex each serpent represents the series of years of one dominical day included in one cycle; that is to say, one column of a cycle as given in the previous tables. I have been led to make this suggestion from what I find on Plate 43 of the Borgian Codex.

Here we see four serpents,¹ coiled so as to form the sides of a square, and the four squares brought together so as to bring the heads to the center. On the body of each is a series of circles representing as I believe years; counting the small subcaudal one, there are exactly thirteen on each serpent.

Each of these serpent figures may represent an Indication, but the figure and the day signs in the spaces and the order in which they stand incline me to believe that they relate to the series under the respective dominical days. The five day signs in the spaces are doubtless the five added days—this can, I presume, easily be determined; but as I have not entered upon the study of the Mexican Calendar, and have not the proper works at hand for this purpose, I leave this for others to decide. In the upper right-hand square the inclosed figure is black, reminding us of the

¹ These are really monsters, as they are represented with anterior limbs.



FAC SIMILE OF PLATE 26 OF THE DRESDEN CODEX.


black figure in Plate XXIII of the Manuscript. In front of each inclosed figure, and immediately over the head of the serpent, is an urn. The snout of each serpent is crowned with a plume-tipped process. These resemblances, notwithstanding the otherwise great dissimilarity of the figures of this plate of the Borgian Codex to those of the other two works, render it quite probable that they relate to the same general subject.¹ I think it very probable that the serpent was sometimes used to symbolize the Ahau, as for example on Plates 33, 34, 35, and 69 of the Dresden Codex; that on Plate 33 to denote the 6th Ahau, that on 34 the 3d; that on 35 the 8th, and that on 69 the 10th. The lustres are evidently indicated on the last by the colors.

Turning again to the plates of the Manuscript, we notice the figure of an animal of some kind mounted on the right-hand personage in the upper division of XXI, XXII, and XXIII. The peculiar form of the eye shows these to be quadrupeds. They are doubtless mounted on these individuals to show that they are Chacs, corresponding with those in the upper division of the Codex plates.

We may as well call attention here to the fact that several of these things which appear on the other plates and seem to be equally applicable to all the years alike, are wanting on Plate XX, which relates to the Ix years. For example, the serpent is wholly wanting here; there is no animal denoting the Chac, and one at least of the clay vessels is missing. What does this signify? I confess that I am somewhat at a loss how to account for it, but, from my examinations and what has been ascertained, am disposed to explain it by the fact that Ix is the closing year of the lustres and cycles, and that the things mentioned, being symbols of one or the other of these periods or depending upon them, properly disappear with this year. If this view be correct, it will probably enable us to assign a signification to the large (supposed) red-clay vessels placed on the serpent coils in Plates XXI-XXIII. *Uayeb-haab* or *Uayeyab* (the latter is but a contraction of the

¹In a pamphlet by Sr. J. M. Melgar, of Vera Cruz, entitled "A comparative view of the symbolical signs of the Ancient Systems of Theogony and Cosmogony, and those existing in the Mexican MSS., as published by Kingsborough, and the alto-relievos on a wall in Chichen-Itza," 1872, which Dr. Foreman, of the Smithsonian, has very kindly translated for me, I find a somewhat different interpretation of this plate of the Borgian Codex. This will be found in my Appendix No. 2.

former) signifies the "bed of the year." As the vessels are placed on the serpent, and hence cannot represent incense-burners, it is not impossible that they are symbols of the idea expressed in these Maya words.

The character  which, according to Landa is the hieroglyph for the letter *u*, which in Maya signifies "vase" (also "moon"), is common on the vase-figures throughout the work; but on these vessels we notice parts of other characters which together with the one given may be the symbols for *Uayeyab*. This I admit is a mere supposition, but it does not appear to be a forced one; moreover, the following explanation by Perez may serve to strengthen it: "They called them [the added days] also *uayab* or *uayeb-haab*, which may be interpreted in two different ways. The word *uayab* may be derived from *uay* which means 'bed' or 'chamber,' presuming the Indians believed the year to rest during those days; or *uayab* may equally be derived from another signification of *uay*, viz: 'to be destroyed,' 'wounded,' 'corroded by the caustic juice of plants,' or with ley and other strong liquids."¹

I think it probable that these are cinerary urns, given as symbolic representations of the idea that the years have closed—are dead—and as the ashes of the dead rest in the urns so the ashes of the years may be said to rest in these vessels. This idea appears to be borne out by the fact that the vessel in the middle division of Plate 28 of the Codex, which appears to correspond to these of the Manuscript, has on it the figure of cross-bones, on the top of which are placed three Kan symbols.

Stephens in his "Yucatan" mentions the fact that it is the custom of the Indians to gather up the bones of the dead and preserve them in baskets, boxes, and other similar vessels. He mentions one case where "they were clean and bright as if polished, with the skull and cross-bones in front, the legs and arms laid on the bottom," &c.² It is more than probable that this custom was handed down from ancient times.

What the Kan symbols contained in these vessels signify is a question that puzzles me, and which I have so far been unable to answer satisfactorily. In the Manuscript we see three in both vessels of Plate XXIII; three in the upper and two in the lower division of Plate XXII; also three in the upper and two in the lower division of Plate XXI, but the top one

¹ Appendix to "Stephens's Yucatan," I, 437.

² Vol. I, p. 417.

in the upper is surrounded by a heavy black border, while in the lower a black bird appears to be in the act of devouring a third, presented to it by the white personage at the right. On Plate XX there are two in the similar vessel in the lower division, and two connected with another character in the upper.


Turning to the Codex, we find the arrangement, so far as these characters are concerned, quite different. On Plate 25 we see but one, and that in the middle division; on 26 one in the middle and two in the lower division; on 27 two in the third or lowest division, with the figure of a fish upon them; on 28 three in the middle, above the cross-bones. If the vessels are to be considered as cinerary urns, figuratively holding the ashes of the dead years, these Kan symbols must be in some way connected therewith, but the numbers on the different ones cannot easily be made to agree with any of the periods of the calendar. Possibly they may simply represent ears of maize or tortillas cast into these vessels. The fish placed on those in the third division indicate, as I believe, that here they are intended to represent corn or bread, for the position of the figure shows that it is meant for one of the offerings made to the idol, which Landa says consisted of "drinks, dishes of food, meats, fish," &c. The vessel just above this, in the same division, probably contains fruits or gourds (calabashes).

If we suppose them to be time symbols, we may possibly find an argument in favor of interpreting them years in the fact that on Plate XXIII, where there are three in the vessel in the lower division, there is a fourth one on the head of the personage at the right, who we have supposed is the personage that represents the year. By counting this we have the four years. The one withdrawn and placed upon the head of the image represents (say) the Cauac year. This leaves three, as shown in the vessel. In the lower division of Plate XXII there are but two, another having been withdrawn to represent the Kan year. So far we meet with no obstacle to our interpretation; but when we come to Plate XXI we find there are three, and on Plate XX two, a fact which is difficult to explain on this theory.

Turning again to Plate XXII, we observe on the head of the individual at the right of the upper compartment two triangles. These remind

us very strongly of the triangles on the outer circle of the Mexican calendar stone, and, although these are at the head of the animal, while those are at the tails of the serpents, I think it probable they have the same signification—the completion of the cycle. This opinion, I believe, is confirmed by the figures at the left of the same compartment. Here we observe two falling figures. The lower, pale brown, with cords on his arms and legs, is being dashed to pieces on the pyramidal pile, on which he falls, as shown by the blood which is streaming over it. The upper one is white, the side of the head marked with a sinuous line, as that in the lower right-hand corner of the lower division of Plate XXIII. That these two figures symbolize periods of time can scarcely be doubted, the dark one striking the pyramid that which is expiring. The four steps of the pyramid probably denote “indications” or “weeks of years,” and, hence, all taken together represent the cycle. In the dark base we see a sigmoid character similar to that which Landa gives for the letter *N*, which may possibly be the symbol for the Maya word *Noh*, “grand.” Here we see that one of the steps is black, which is the characteristic color of one of the four dominical days and of one of the four plates of the Manuscript. These facts, I think, are sufficient to warrant us in assuming that the whole pyramid represents the cycle, and is, no doubt, the “monument” raised at the termination of this period, in reference to which Perez makes the following remark: “This period of fifty-two years was called by the Indians *Katun*, and at its conclusion great feasts were celebrated, and a monument was raised, on which a large stone was placed crosswise, as is signified by the word *Kat-tun*, for a memento and record of the cycles or *Katunes* that had elapsed.”

The two falling figures probably represent years, the dark one the closing year of one cycle or other period and the white the first of the following. I am led to this conclusion from the strong resemblance of the white figure to those in the lower right-hand corner of the lower division of Plates XXII and XXIII, which I have supposed represent the Uayeyab idols.

At the top of the left-hand, or day, column of Plate XX, and elsewhere in these four plates, we find this unusual red character 



FAC SIMILE OF PLATE 27 OF THE DRESDEN CODEX.

sometimes with and sometimes without dots over it. Over the Ix column—Plate XX—there are two of these characters, the upper with three dots over it, the other with one. In the upper edge of the upper space of the same plate there is another without any dots over it. Those over the Muluc column—Plate XXI—are too thoroughly obliterated to be made out, but in the upper space of this plate we see a very distinct one with two dots over it. There are none over the Kan column of Plate XXII, but in the upper space there appears to be one, though too badly defaced to be made out with certainty. There is one over the Cauac column—Plate XXIII—with one dot over it, and in the upper space another, with two dots over it, above which is another in black, but reversed, and without dots. On the title page there are two lines of somewhat similar figures, but presenting some differences, which render it doubtful whether they have the same signification as those on the four plates.

There can be but little doubt that these characters are used here to denote certain periods of time. But what periods is a question I have so far been unable to answer satisfactorily. I will therefore postpone the discussion of this point to a subsequent page.

In the broad line separating the two divisions of each plate we observe certain square characters, some of which are readily recognized as day symbols. Those on Plate XXIII reading from left to right are—first, *Ezanab*; second, *Akbal*; third, the character which Brasseur says stands for *M*, and fourth, possibly a variant of *Lamat*. On Plate XXII, reading in the same direction—*Lamat* (?), *M*?, *Ezanab*, and *Akbal*; on Plate XXI, *Ezanab*, possibly a variant of *Been*, *Akbal*, *Lamat*, and (?); on Plate XX, *Been*, *Akbal*, *M*?, *Ezanab*, and *Lamat*. Two only in each line can be determined with any degree of certainty. These days are the closing ones of the different years, and are very appropriate in this place, and bear the same relation to these plates as those in the columns of the Codex do to those plates. Their position here also confirms the view I have heretofore incidentally advanced, that the upper division of these plates relates chiefly to the closing days of one year and the lower to the commencement of the following. The character which I have denoted by the letter *M* is the same as that which I have interpreted as designating “the north,” except that it is without the prefix.

I strongly suspect that it is the symbol for *Am*, the sacred stone by means of which they cast the horoscope, and which was doubtless the same as those named by Landa *Acantun*. The loop or knot on Plates XXI and XXII probably signifies the tying of the years, the close of one cycle or other period and the commencement of another.¹ There are but two of these, and they probably correspond with the figures on which the Chacs in Plates 27 and 28 of the Codex are walking. These appear to be bundles of cords or reeds bound at four points, representing the four dominical days (the four years), each representing thirteen years of the cycle, or possibly only one year of the luster.

Plate XX, which has *Ix* as the dominical day, appears to bear one or two of the tokens mentioned by Landa in his description of the festival of the Cauac years. This author remarks that, "after they have placed the images in the temple, they perfume them, as is their custom, and present to them two pellets of resin from a tree called *kik*, for the purpose of burning them, also some iguanas, bread, a mitre, a bouquet of flowers, and a stone which they hold in great honor." We see projecting from the head-dress of the figure in the lower right-hand corner of the lower division what appears to be a flower. In the upper division we see at the left an individual burning incense. In the corresponding plate of the Codex (25), middle division, is this figure (Fig. 12), which I have concluded is a symbol of the particular incense here mentioned.



FIG. 12.

¹ It resembles the Mexican character for the day *Ollin* or "Earthquake."

CHAPTER IV.


SUGGESTIONS AS TO THE PROBABLE MEANING OF SOME OF THE FIGURES ON THE OTHER PLATES.

PART FIRST OF THE MANUSCRIPT.

Plates II to VII of the first part appear to relate to one general subject, if we can judge of this by the figures and symbols, but what that general subject is I am as yet unable to determine positively, but am of the opinion that they relate, in part at least, to the festivals and profession of the traveling merchants.

The first division of Plate II contains two figures. The one to the left, a quadruped upon a brown ground, has its hind feet upon an oblong figure, apparently a stone, holding by its fore feet to a cord which passes round the object on which its hind feet are placed. A machete is plunged into the back, forming a great wound, from which we see the blood flowing out. The character on which he stands is marked with the trembling cross, which signifies "Ezanab" or "flint." I think it more than probable that this is intended to denote the sacrifice of this animal. It was the custom to sacrifice a dog at the merchants' festival, but it is doubtful whether this figure is intended to represent a dog.

A similar figure and with similar accompaniments is found in the upper division of Plate III. I find among the characters immediately above both

of these, this one.  The right-hand portion appears to be Landa's character for the letter "L." If we suppose the inscription to have any reference to the figures in the spaces, we may give this two possible interpretations—the first *Ol*, "heart," probably denoting the sacrifice of the animal or person by the usual method of taking out the heart. Or, supposing

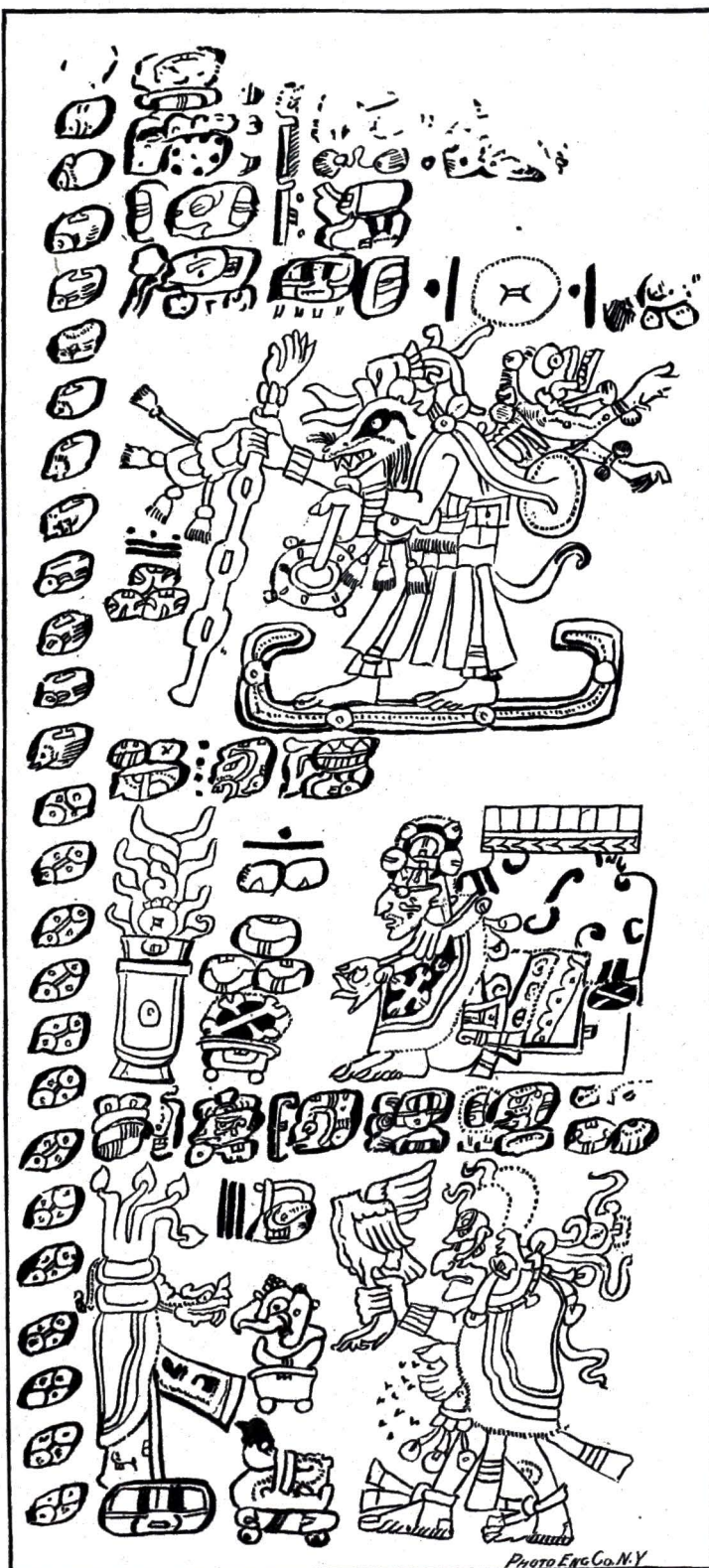
the first part of the compound character to be simply a prefix or a particle, the chief character may indicate the Maya word *Le*, signifying "a cord," "a lasso," or cord with a slip knot. I find the same character over the middle figure of the second division of this plate (II), also, slightly varied, over the left figure of the first division of Plate III. In each case we see the cord and also the indications of sacrifice. The same character is also found immediately above the open breast of the sacrificed individual on Plate 3 of the Dresden Codex, but in this case we also see cords around the hands and feet.

In the right-hand compartment of the upper division is a squatting human figure in black on a blue ground, doubtless representing some deity. He has a fiery red mouth and a very prominent nose, and is holding by the hand a cord, which passes round a character at his feet, probably representing a peddler's pack. On his head he bears an interlaced or cross-hatched figure as a head-dress. This figure I think represents the ancient divinity *Chicchac-Chab* or *Chichac-Chob*.¹ The cross-hatched character on the head appears to be used to indicate the sound *tzi*, *zi*, or *chi*, and is probably placed here to denote this deity. Similar figures are found in various parts of the Manuscript, as, for example, on Plates IV, V, VI, VII, XIX, XVII*, XVIII*, XXII*, XXIII*, XXV*, XXIX*, XXX*, XXXI*, and XXXII*.

There appear, in fact, to be two different personages represented by these figures, as may be seen by reference to the upper division of Plate VI, where the two are brought face to face. The only difference observable is in the form of the eye. According to Landa, the Indians, during the festival of the Cauac years, made four idols named *Chicchac-chob*, *Ekbalam-chac*, *Ahcan-Volcab*, and *Ahbuluc-Balam*; the first of which is doubtless one of those referred to. It is also possible that some of the figures on this group of plates refer to others of these four deities.

In the middle division of this plate (II) is a stooping human figure, with his arms bound behind his back with a cord, and a kind of yoke on the back of his head. The edge of a machete is descending upon his neck as if to sever his head from his body. That this figure is intended to show that the individual is about to be slain can scarcely be doubted, as we see,

¹I am aware that *Eckhuah* was the merchant's patron.




FAC SIMILE OF PLATE 28 OF THE DRESDEN CODEX.

by turning to the middle division of Plate III, the same person, although still represented as standing, a headless trunk and covered with blood, while in close proximity is the fatal machete.

Above the bound figure we find the character heretofore given, which we have supposed may be the symbol for *Ol*, or "heart," and, if so, tends to confirm the idea indicated in what has been said concerning these figures. Be this as it may, we have here, undoubtedly, indications of human sacrifice. The mode indicated may not be exactly what we may have been led to expect from what has been stated by the old authors, but this does not necessarily prove our interpretation wrong. It is a significant fact that on the third page of the Dresden Codex we see human sacrifice distinctly shown. Thus it appears that each of these manuscripts bears the evidence of this horrible custom.

As bearing upon my interpretation of these characters, I call attention to the fact that they are also found on Plate 3 of the Codex, in connection with the figure denoting human sacrifice.

The white left-hand figure in the third division (Pl. III), holding in his right hand the symbol of *cu* or Cauac, and in his left a spear head, represents, as I judge from the markings and this accompanying character, , one of the gods of death or underworld.

Plates III to VII, taken together, appear to represent among other things a journey of some kind, probably the journeyings of traveling merchants or peddlers. This is indicated by the marks of footsteps and by the figures of individuals with staves in their hands and packs on their backs, which are bound with cords.

The two individuals in the upper division of Plate VI appear to be in the act of producing fire by whirling a stick between the hands with the point pressed on a piece of wood, as was the custom.

The figure in the lower division of this plate is interesting chiefly on account of the peculiar head-dress of the large central figure. This, which is shown in the annexed cut (Fig. 13), represents a couch or seat in the form of a double-headed animal, on which is placed the head of a deer. This bears such a striking resemblance to the double-headed

couches or seats found in the ruins of Yucatan¹ as to induce us to believe that they have the same signification in both places, or that the figure in our plate refers to that which was represented in the older sculptures and



FIG. 13.

paintings. The peculiarity in the figure of our plate is that the personage seated on the couch is here symbolized by a deer's head, and that on the cheek of the right head there is one of the death symbols. Is the deer's head here a symbol of the personage represented as seated on the couch in the sculptured tablet of the Palenque palace, and the Beau Relief in stucco? We have no means by which to determine this, but it is my opinion it is.

I suggest, as a possible explanation, that this singular head-dress is a symbol

used to denote the peninsula of Yucatan, or, rather, *Etel-ceh*, the name by which it was known in ancient times. *Ceh*, as is well known, is the Maya word for "deer." *Etel* signifies "companion," and *Etelet*, from "hand to hand" or "side to side." Hence it may be intended as a symbol of dominion.

This, I am aware, is a somewhat visionary guess, and I give it as such; still it is not impossible that it is substantially correct.

On the jaw of the head, looking to the right, is an imperfect character, which, from evidence found elsewhere in the Manuscript, I am satisfied is a variant of Cimi.

We find that the same deity represented in the second division of Plate VII assumes a different form. The scene appears to be an open, grassy prairie, leading us to infer that here the javelin is being hurled at game, although none is figured.

In the lower division of Plate VII, and extending into the margin of VIII, is a series of five similar blue figures, each seated on a large character like the one here shown.

¹Bancroft's *Native Races*, vol. iv, pages 317, 318, and 329; Stephens's *Yucatan*, vol. ii, page 182; Waldeck, plate xvii; Dupaix, plate xxvi (Plate 20, Kingsbury, iv).

The black numerals not obliterated are as follows, and in the following order: 11, 10, 9. Is it not possible that these signify Ahaues? The head-dresses on three are similar to that seen so often throughout the work on the head of Tlaloc, and which, I presume, signifies the tying of the years. I merely suggest this as a possible explanation, although the order of the numerals is not the usual one.



FIG. 14.

Plates VIII to XIX appear, from the figures, to relate to the chase. VIII-XIII are devoted almost wholly to figures of animals (mostly deer) caught in snares. It appears from these figures that the method of snaring animals was to fasten a cord to the top of a slender tree, bend it down, and fasten a slip-knot around a spring or trigger, so that when touched by the fore foot of the animal it would slip up and tighten, and thus hold up the fore part of the body. There can be no doubt that the elongate white stems to which the cords are tied represent trees or wood. If the nodes marked upon them were not sufficient to show this, a study of the similar figures throughout the work would satisfy any one on this point.

The curved figure at the foot of the deer in the second division of Plate VIII probably represents a kind of spring or trigger around which the slip-knot is fastened in such a manner that when touched above by the foot of the animal it closes or bends together, so that the knot slips off it and on to the leg.¹ I am aware that this interpretation is widely different from the profound explanation given by Brasseur, still I think it is as near the correct one.

The animal represented in the upper division of Plate IX is an Armadillo. It is evidently in a pit, into which it has fallen through the trap arranged for this purpose. We see no cord here, as none was needed.

The pit appears to have been lined around the sides with upright pieces of wood, to prevent the earth from falling in; then two layers around the top of these, and finally covered with a layer of sticks or small beams, through which a hole was made in the middle, and then pieces laid loosely on this, so that the ends met over the middle of the opening. The animal

¹ Herrera (Dec. iii, Bk. vi, chap. 3) says they killed their game with gins and snares. The Gentleman of Elvas speaks of a method of catching conies with snares similar to that figured in the Manuscript (Hackluyt Transl. ii, 183).

passing over steps on these, and, tilting them, falls in. I introduce here a figure of this pitfall, an exact copy of that on the plate. We here see the method of joining the ends of beams together.

A similar figure, but on a smaller scale, is given on Plate XXII*. The

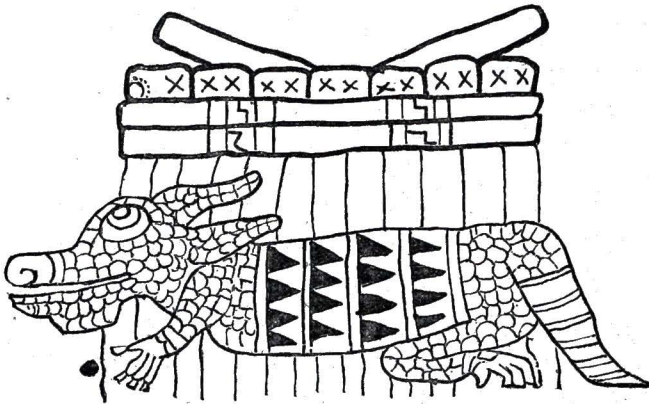


FIG. 15.—Pitfall and armadillo.

crosses on the ends of the beams are parts of the character so often found on wooden articles. This is evident from the fact that the full character is found on the ends of the cross-beams in the figure on Plate XXII*. The probable signification will be given here-

after, in the chapter relating to the written characters.

In the third space of this plate, and also in the second and third spaces of Plate XIII, there is an outline figure of a scorpion, and in each case the claw at the end of the tail grasps a cord to which a deer, rabbit, or fox is attached. I confess my inability to interpret these figures.¹

In the left portion of the upper division of Plate X² is a broad transverse line containing characters similar to those in the line between the divisions of Plates XX–XXIII. The left-hand character (of the three) bears a strong resemblance to the symbol of the Mexican day *Ollin*, or "Earthquake," but here possibly represents the Maya day *Ezanab*, and the middle one, *Been*. The character to the right is the "death symbol," or symbol of the day *Cimi*. The red and blue scrolls which are attached to and hang below this line probably denote the supposed character of two different years or days, so far as they relate to the chase. It is a fact worthy of notice that on these six plates there are just *eighteen* of these captured animals, or one for each month of the year. We can readily understand why the festivals or religious observances denoted by these figures and the day and numeral characters are so numerous and occupy

¹ Sr. Melgar (*Comp. View, &c.*) suggests that it denotes the zodiacal sign *Scorpio*, and hence *autumn*. But such a supposition would imply a knowledge of Oriental astronomy not warranted.

² See Fig. 97.

such a large portion of the Manuscript. The priests were fond of the savory venison hams which fell to them. In other words, it was a scheme on their part to use the religious fervor of the people to supply their larders with this choice meat.

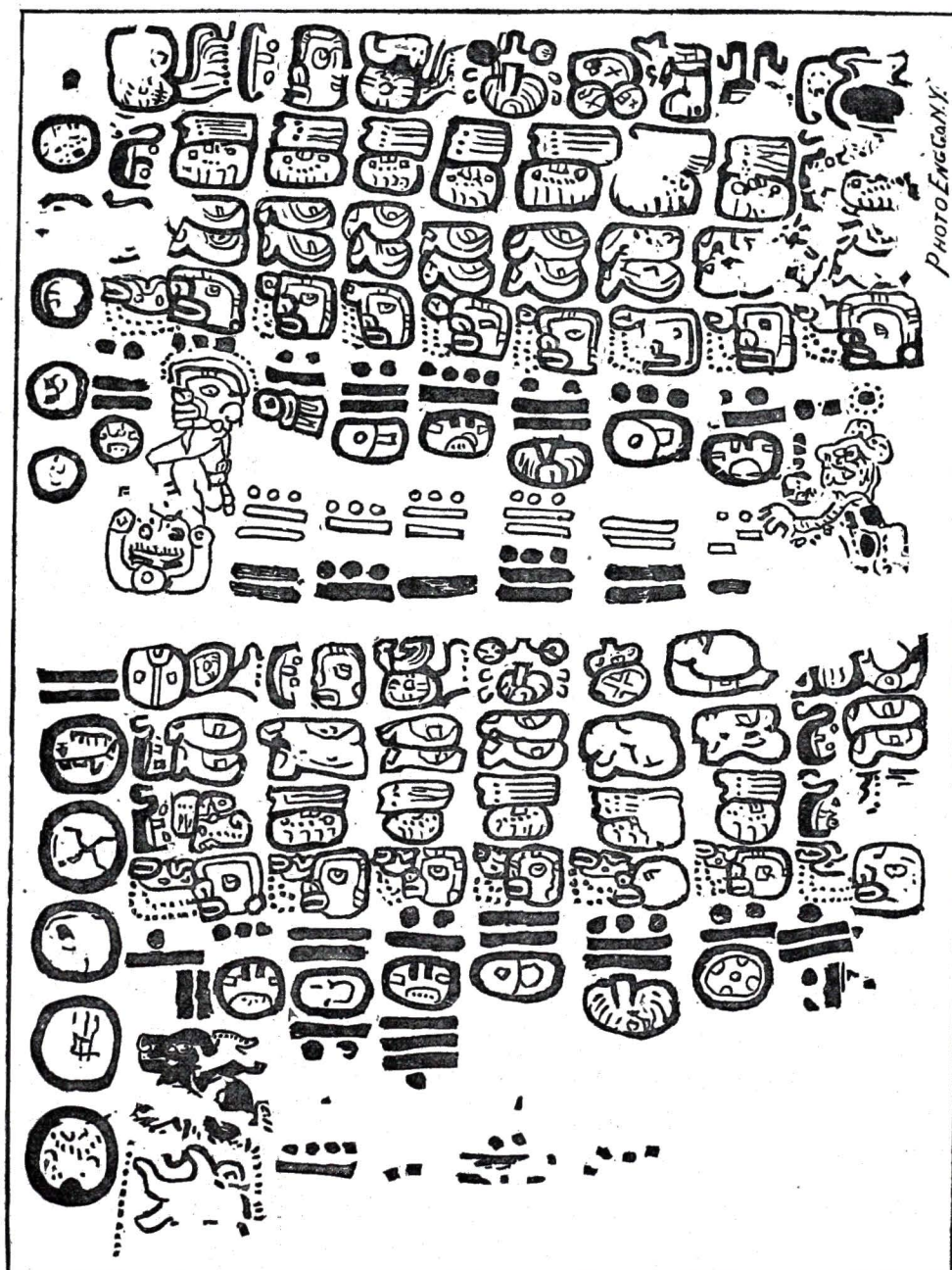


FIG. 16.

Plate XIV—the middle and lower divisions of which are reproduced in Fig. 11C—I take to be a ritual relating to the hunters' festivals. In the upper division we see two persons dressed as Chacs, and bearing the emblems of the festival to the temple or appointed place. The middle and lower divisions contain entire transverse lines of the same character repeated. If we take them in columns, instead of transversely, we will find that they differ from each other only in the top and bottom characters and the numerals. As an example, I refer to the third column from the left of the middle division (omitting from the count the usual day column at the left). The character at the top is the one already interpreted as signifying "the east"; three of the other columns have each one of the cardinal points, the rest of the characters being the same in each column and in the same order except the numeral and the character below it. The same is true in reference to the lower division. As these appear to designate mere repetitions, either of actions or words, varied slightly as to direction or number, I conclude that, taken together, they form a ritual for the ceremonies that relate to the chase.

Plates XV–XIX appear to represent tokens of hunting scenes and the ceremonies of the hunters' festival. In the upper division of XVII, XVIII, and XIX we see the hunters returning from the chase, some bearing their game, others their weapons, and others flowers in token of success.

On Plates XV and XVII we see some of the game left behind for the vultures, which are devouring it. The middle division of XVI and XVII relate to the same subject; the left figure in the latter is represented as being bitten by a rattlesnake, one of the dangers to which they are subject while pursuing their calling. The figures at the right of the upper division of the same plate represent a master punishing his slave or follower; the difference in the belt anklets and dress showing the difference in condition.

It is more than probable that these figures are to a certain extent cabalistic and also that it is a part of the ceremonies of the festival to represent these incidents of the hunter's profession.

The large figure in the middle division of Plate XV I presume represents an idol, made for the occasion, in the form of a deer. If so, we see here a strong indication of phallic worship.

In the lowest division of Plate XVII we observe a woman piercing her tongue with a maguey leaf, while in front is an incense-burner.

The two figures in the upper division of Plate XIV are doubtless Chacs selected for the occasion, who are carrying to the festival the implements of the chase and a sun image. The character on which the figure in the lower left-hand corner, middle division of the same plate, is standing, is probably a representation of the trap, or rather trigger, used in snaring game.

We observe that the left-hand figure of the lower division of Plate XVI is bearing in his hands a Kan symbol on which is placed a deer's head. We see exactly the same combination in the fifth transverse line of the title-page—a deer's head on a Kan symbol, emblems of their chief means of subsistence, maize and venison.

The figures in the middle division of Plate XVIII are evidently symbolical, as the positions are unnatural. I am inclined to believe the upper of the two figures denotes a supposed phantom, which, according to the superstitions of the Indians, flew through the air, destroying game as it passed. This is a mere supposition based wholly on the figures themselves, yet one that I think is warranted.

The figure in the lower division of this plate (XVIII) probably represents a priest clothed in animal skin, or an idol.

The black and white figures in the middle and lower division of XIX are grinding paints to be used in their ceremonies. The black is the same personage as the right-hand figure in the upper division of Plate VI (Chic-chac-Chob). The white one in the middle division is a personage we frequently meet with on the pages of this work and in reference to which I will have more to say hereafter. The white figure in the lower division is certainly the same as those on Plates XXII and XXIII, which I have decided represent Uayeyab idols. It here no doubt signifies a priest dressed to represent this idol.

Plates XXIV-XXVIII appear to relate to one subject—the rainy season, or rains, storms, clouds, &c. I think it quite probable that pictures of this kind seen by the early writers on the manuscripts which they inspected, were the ones they supposed related to the great floods which inundated that country.

From a careful study of them I conclude they are of general application, and refer simply to the storms, clouds, &c., of the rainy season of the year, and not to any particular event.

As each of these plates is complete in itself, there is nothing in them, except the subject treated of, to indicate the order in which they are to be taken; but this is too uncertain a guide for us to base any confident opinion upon. All I can say on this point with confidence is that XXIV and XXV appear to relate to severe and destructive storms, and XXVI and XXVII to beneficial and fertilizing rains. The figures in the lower division of the first two I think indicate the formation or commencement of the storm. We see in both a young or small serpent, which, I think, is here the symbol of a cloud. That on Plate XXV is a rattlesnake, indicating its deadly character, as does also the death symbol near by. The apron of the great, robust female is cross-hatched—which here may signify *Zih*, "origin" or "birth"—and denote that the serpent, which is issuing from behind it, is in process of birth. The character held in the right hand is *Ik*, "breath," "wind," or "spirit"; the blue lines from the mouth, which strike against the falling figure with the dead eye, denote the fierce storm on its errand of destruction and death.

The beam shooting out from the eye may possibly denote lightning, though in the similar figure on Plate XXVII this appears to be indicated by the red dots in the bound serpent on the head. The intention appears to have been to indicate the Maya equivalent of the Mexican female deity, *Chalchihuitlicue*. This deity, according to Sahagun, was the sister of the Tlalocs. "She was honored because she had power over the waters of the sea and of the rivers to drown those that went down to them, to raise tempests and whirlwinds, and to cause boats to founder. They worshiped her, all those that dealt in water, that went about selling it from canoes or peddled jars of it in the market. They represented this goddess as a woman, painted her face yellow, save the forehead, which was often blue, and hung round her neck a collar of precious stones, from which depended a medal of gold. On her head was a crown of light-blue paper, with plumes of green feathers and tassels that fell to the nape of her neck. Her earrings were of turquiose, wrought in mosaic. Her clothing was a shirt

or upper body garment, clear blue petticoats, with fringes, from which hung marine shells, and white sandals. In her left hand she held a shield and a leaf of the broad, round, white water-lily, called *atlacuezona*.¹

Clavigero makes the following statement in regard to this goddess: "*Chalchiucueje*, otherwise *Chalchihuitlicue*, was the goddess of water and companion of Tlaloc. She was known by some other very expressive names, which either signify the effects which water produces, or the different appearances and color which it assumes in motion. The Tlascalans called her *Matlacueje*, that is, clothed in a green robe; and they gave the same name to the highest mountain of Tlascala, on whose summit are formed those stormy clouds which generally burst over the city of Angelopoli. To that summit the Tlascalans ascended to perform their sacrifices and offer up their prayers. This is the very same goddess of water to which Torquemada gives the name *Xochiquetzal*, and the Cav. Boturini that of *Macuilxochiquetzalli*."²

The interpreter of the Codex Telleriano-Remensis says: "*Chalchiutli*, who presided over these thirteen days, saved herself in the deluge. She is the woman who remained after the deluge. Her name signifies, 'The woman who wears a dress adorned with precious stones' They here fasted four days to Death. They painted her holding in one hand a spinning-wheel and in the other a certain wooden instrument with which they weave; and in order to show that of the sons which women bring forth, some are slaves and others die in war, and others in poverty, they paint her with a stream, as if carrying them away, so that, whether rich or poor, all were finally doomed to perish."³

We may therefore, I think, safely assume that the figure in our plate is intended to represent the Central American or Yucatec goddess *Xnuc*, who appears to be an equivalent for the Mexican female deity described, and that here, at least, she is but a symbol of the mountain range where the storms were formed, and from whence they rushed down into the valleys and plains below. Whether the large figure in the lower division of Plate XXVII is intended to represent the same deity is somewhat uncertain, but

¹ Bancroft's Native Races, Vol. iii, p. 368.

² History of Mexico, Vol. i, p. 252, Cullen's Trans.

³ Kingsborough's Mex. Antiq., vi, p. 120.

judging by the blue hair, blue ear-circle, the bound serpent on the head, and the similarity in the form of the mouth, anklets, and wristlets, I am disposed to believe it is, notwithstanding the material differences in other respects. The mouth of the latter, the peculiar form of which is more distinctly shown than in the former, reminds us very strongly of that of the symbol of the Mexican day *Ehecatl*, "wind," as given in the various Codices. I am disposed to think that the figure in Plate XXV represents her as the storm-brewing goddess, while that in Plate XXVII shows her as the giver of beneficial and fructifying rains. In the former the eye simply shows the lightning flash, while in the latter it is surrounded by the curved Tlaloc sign, or what is supposed to be the sign of the Tlaloc eye, though certainly not limited to this deity.

The figure in the lower division of Plate XXIV is evidently intended to express the same idea as that in the lower division of XXV; but I am at a loss to decide what deity is denoted. A god with four hands, as here shown, is an anomaly in Mexican and Central American mythology. I have failed to find any such represented in the Codices, though I have looked through them somewhat carefully for this purpose. Nor have I found any mention of such an one in any of the works I have at hand.

Prof. Edward S. Holden thinks he sees four hands to the figure on the Leyden Stone, but I must confess I have been unable to find more than two which appear to belong to the principal personage. He is of the opinion that the figure on our plate is intended to represent the Mexican god of war, *Huitzilopochtli*.¹ It is possible that this surmise is correct, as it agrees in several important respects with the dark figure in the upper division of Plate XXV, which I think beyond doubt represents this deity.

As the reader will find the characteristics and symbols, and also a very reasonable and probably correct interpretation of these given at length by Bancroft in his *Native Races*, I will omit the mention of them here. I only add that here we see the feathers, the shield, the snake belt, the arrows and spear, and everything, even to the attitude, that betokens a warlike deity. The accompanying serpent, which here clearly denotes a cloud, is not wanting; the rain pours down in fearful torrents, and on each side is the

¹ "Studies of American Picture Writing"; in Annual Report of the Bureau of Ethnology.

death symbol. This god we know was a companion of, or, rather, accompanied by, Tlaloc, whose figure we see by turning to the adjoining Plate XXIV. But here, instead of being in his favorite blue, we see him clothed in black and bearing on his arm the shield that forms one of the tokens of the war god. On this we see the symbol for *Ik*, "breath" or "wind," twice given, betokening the storm and the whirlwind. In his right hand the spear-hurler, or, as here used, the lightning symbol, while in front of him is the Uayeyab idol or figure representing the year, upon whose head the torrents are descending, and upon whom the angry Tlaloc appears to be venting his wrath. If a supposition, hereafter more fully explained, that this figure represents Zamna, or corn, prove correct, the signification of what is here shown is at once clear.

Above the head of the god, sailing through the air, is a batrachian, or frog-like animal, a symbol of abundant water.

The large character in the middle, which has the inner space blank, was doubtless intentionally left so. I am unable to guess its meaning, unless it be a time symbol of some kind. The transverse line of partially obliterated characters at the top are similar to those found in the middle transverse line on Plates XX-XXIII, which probably have the same signification here as there.

As before remarked, Plates XXVI and XXVII appear to belong together, and to refer to the milder and beneficial rains.

In the upper division of the former we see Tlaloc, accompanied by his four Chacs, the latter without any marks of distinction, as here the intention appears to be to represent them as rain-givers only. The former is shown here in his usual blue color, but the scorpion-like caudal appendage is uncommon, and, taken in connection with the plate on the loins to which it is attached, is, as I believe, a time symbol of some kind. We notice that the claw at the tip appears to clasp the single red numeral character surrounded by dots. In this space we also observe the symbols of the four cardinal points, one by each Chac.¹

¹I have been in considerable doubt as to whether these minor deities are Chacs or Bacabs, as there appears to be much confusion in the writings of the old authors in reference to them; but have decided to apply the name Chacs to those which appear to be related to the rain gods. I think it probable that the two terms apply to the same deities.

The figures in the lower division of this plate, I think, are easily interpreted. Here is the cloud, or moisture, represented in the form of a serpent, with a Tlaloc head to denote its beneficial and fertilizing influence. Tlaloc, who has been riding upon it, now starts upon his descent to earth, bearing upon his back the symbol of abundance of food—a vase filled with corn and a vine loaded with fruit.

I am aware that I have heretofore referred to the serpent as a symbol of time, but this diversity in the application of this symbol has been recognized by others. Bancroft, after a thorough consultation of the numerous authorities in his extensive library, remarks, in speaking of the attributes of the Mexican god Huitzilopochtli: "Huitzilopochtli is also a snake god. * * * * If the snake signifies in one case time, in another world, and in another instance water, or the yearly rejuvenation of germs and blossoms, the eternal circle of nature, divination, soothsaying, it is quite proper, for all these qualities are found united in the god."

The figures in the upper division of XXVII are very similar in character and signification to those just described. Here is the snake cloud floating along, the crimson underlining indicating either the lightning or the effect of the setting sun. On the head stands Tlaloc, while he pours out the rain from the inverted vase in his hands. On another part stands a goddess, possibly *Ixmol*, also pouring the refreshing rain on the parched earth.

The central figure in the lower division of this plate has already been alluded to and the conclusion reached that it is the female deity *Xnuc*, the mountain, or mountain range, from which the rains of that region mostly come. The chief parts of the figures in this division may be thus explained: The blue lines, the rain flowing out from the skirts and down the sides; the serpent, the embryo cloud on the summit, through which the lightning, represented by the red dots, is playing. Here we see the four Chacs, with their distinguishing marks upon them; also Tlaloc, with a singular head-dress.

From a careful study of these four plates I conclude that XXV precedes XXIV, and that XXVII precedes XXVI, in other words, should proceed to the left in the order paged.

Plate XXVIII appears to relate somewhat to the same general subject as the preceding group just described, but is not so directly connected with them as they are with each other. It seems, in fact, to belong between this group and the one which follows (in the order of the paging), and apparently precedes the former.

The chief objects of interest on this plate are the figures in the second and lower division. The larger figures either represent two deities closely allied and belonging to the same class, or are symbolic. As they are frequently met with throughout the Manuscript I presume they are recognized deities. In this place I think they represent the earth or soil, which, parched and dry in consequence of a severe drought, are here represented as looking up toward the heavens, as if supplicating rain upon the planted and sprouting maize, the emblems of which they bear in their hands. As will be noticed elsewhere, there are very strong reasons for believing that the lower figure, and probably both, represent gods of death, or that they are symbols of death. This agrees very well with the explanation I have suggested. The lower figure has in one hand the bread symbol, in the other that of sprouting corn. In the hands of that of the second division are smaller figures, bearing *Kan* characters, here doubtless used as corn symbols.

These smaller figures with the two-colored face, which will be found frequently introduced on the next five plates, certainly represent something of the utmost importance in, or bearing a close relation to, Maya agriculture.

Without stopping just here to give my reasons for the belief, I venture the opinion that they are here given as figures of the deity *Zamna*, or *Itzamna*, but with the—as I presume generally understood—idea, or belief, that *Itzamna* and maize were equivalents, or so closely related, that to figure this deity in connection with agricultural subjects was equivalent to figuring maize, or possibly seed in a broader sense.

The blue, serpent-like figure with purple margin in the third division of this plate (XXVIII) is possibly intended as the symbol of a floating cloud. The chac in front, Tlaloc resting quietly on one of the curves, the blue color and purple lining all correspond with this idea. But the *Zamna*

figures and vegetable sprouts upon it do not agree with this interpretation. Still I believe it to be the idea intended.

Plates XXIX-XXXIII appear to relate entirely to agricultural pursuits, especially to the cultivation of maize, cacao, some vine, and possibly cotton.

In this connection I would call special attention to the first (top) and second divisions of Plates XXX and XXXI, and the two Tlaloc figures in the lower division of XXXIII. In these we undoubtedly have the planting of seed, most likely corn, represented. The number of grains deposited in a place appears usually to be five, but occasionally six seem to be dropped. The opening or hole in the soil is made with a pointed wooden stick, always more or less bent or curved in the figures. According to Landa the custom of the native farmers was to make holes at regular intervals, and in each deposit "five or six grains" of maize. The number appears to be indicated in the plates, not only by the figures of balls dropped, but also by the spread fingers with knobs at the tips, showing that five was the established number. As further evidence of the correctness of this interpretation, the individuals represented on Plates XXX and XXXI, as engaged in this work, have their heads covered with a kind of matting or straw hat, indicating that they are in the sun, where the head needs protection. The character in this head-gear, as will hereafter be shown, probably signifies *ppoc*, "a hat" or "head-covering."

The similar operation represented in the lower division of Plate XXXIII, where Tlaloc, or a priest attired as this deity, is the planter, probably refers to the seed of some other plant, possibly the gourd or bean, or the leguminous plant figured in the second division of the same plate.

As I have expressed a belief that the figures with a two-colored face are given to represent Zamna, or Itzamna, one of the chief Maya deities or culture heroes, I will give here in part my reasons for this opinion.

First. As has been heretofore intimated, and as will hereafter be more fully shown, the Imix and Kan symbols are undoubtedly often used to denote bread and maize, and the word, or name, Itzamna has as its primary signification seed from which plants issue, the chief reference being to maize.

Second. In the plates now under consideration the figures with the two-colored face appear to have some intimate relation to agricultural pursuits.

Third The Kan symbols and these figures are both represented as being attacked by quadrupeds, birds, and worms.

For example, on Plate XXIX, left-hand figure of the second division, we see a bird picking up the planted seed before it has sprouted; in the next figure to the right, same division, we see a small fox-like quadruped seizing it after it has sprouted; in the third division, same plate, and lower divisions of Plates XXX, XXXI, XXXII, and XXXIII, we see quadrupeds, birds, and worms attacking these supposed Zamna figures.¹ In the latter cases the intention was probably to signify that the plant was attacked by these enemies. The figure in the lower left-hand corner of Plate XXX shows three worms at different heights, probably signifying that the root, foliage, and fruit were attacked. The symbol *ca* in the eye of this figure may be considered a symbol of the cultivated calabash, though it is probably intended to signify that the plant (which I take to be a maize symbol) is dead, having been killed by the attacks of these insect foes.

I am aware that the explanations here given may be considered as somewhat overstrained, yet I am convinced that a close and careful study of these figures and all that can be found relating to them will end in leading others to the same conclusion. I may also add that the difference in the plants or varieties represented by these figures (if such be their signification) is shown by the eye and the marks on the head-dress, which here appear to refer to foliage. Possibly these differences have reference only to the different kinds of corn, but this I think is indicated by the color. See, for example, Plate XXX, third division, the yellow and white.

The peculiar birds in the third divisions of Plates XXX and XXXI may have reference to certain auguries; otherwise I can give no guess as to their meaning.

The next to the right-hand figure of the third division, Plate XXIX, probably represents some such plant as maguey, or yucca.

The lower left-hand figure of Plate XXXI I think simply represents

¹ The reader is referred to the quotation from Landa in reference to the ceremonies of the Cauac year (page 66).

the act of watering the parched and dying maize plants. The Kan character here bears a sprout, or plant, which appears to be drooping and dying. Although the figure holding the jar is Tlaloc, I think this represents artificial watering, and not rain.

Plates XXXII and XXXIII appear to relate principally to the cultivation of cacao, cotton, and some climbing plant, and to severe drought.

The figures in the upper division I think relate to the cultivation of the cacao, either to the festival held specially by the planters, as described by Landa,¹ the particular part taken by them in the festival held to induce the gods to give them rain, or some incident in the process of cultivation.

Landa, in his description of their special festival in the month *Muan*, states that "they gave to each of the officers a branch with the fruit of the cacao." This is doubtless represented by the figures holding branches in their hands.

The figures in the second division of these two plates represent two different plants—one evidently a vine supported by a stake, just as grape vines are now supported, on which hang what appear to be pods, possibly beans of some kind. The other plant has a fruit represented by a little circle surrounded by a ring of dots, possibly cotton.

In the third division of these plates there are figures of fox-like animals bearing torches and leaping over a sleeping *Zamna* figure and an incense-burner. In the place of the eye is a character resembling that for *C* or *Chuen*. It is possible that it here stands for the Maya word *chocou*, "hot," or *chocoual*, "heat," and that the animal with the torches is a symbol of the scorching, burning heat of the sun.² This idea agrees very well with what we see in the division above (second). The figures here appear to represent cultivated vines, which are parched and dying from the effect of heat and drought. The Tlaloc head at the foot of one of these shows that they are also to some extent symbolic.

The third and fourth divisions of Plates XXXIV and XXXV evidently relate to painting the vessels, &c., alluded to by Landa, where he says that

¹ See Appendix No. 3.

² I call attention here to Landa's statement, heretofore quoted, in reference to the calamities to be expected in the IX years, especially severe droughts. Also to the fact that an image of *Zamna* is introduced in the festival.

"during this month (*Yaxkin*) they commenced to prepare themselves, according to custom, for a general festival which was celebrated in *Mol*, on a day which the priest designated, in honor of all the gods. They called it *Oloh-zab-kam-yax*. After the ceremonies and usual incensing which they wished to do, they smeared with their blue paint the instruments of all the professions from those the priest used, even to their wives' spindle and the doors of their houses." Here we see the priests dressed up to represent certain deities, with paint-pot in one hand and strip of yucca or maguey leaf in the other, applying the blue paint to their vessels (see Fig 25).

The following statement, by Col. James Stevenson, regarding the method in use among the Zuni Indians in making and applying paints to their pottery, will illustrate this: "When the pigment is properly reduced and mixed with water so as to form a thin solution, it is applied with brushes made of the leaves of the yucca. These brushes are made of flat pieces of the leaf, which are stripped off and bruised at one end, and are of different sizes adapted to the coarse or fine lines the artist may wish to draw. In this manner all the fine lines on the pottery are produced."

The figures in the upper division of these two plates perhaps represent priests with calendar wheels, determining the time at which the coming festival shall be held.

Those in the second division of Plate XXXV are probably in the act of preparing the paint.

PART SECOND OF THE MANUSCRIPT.

The title-page.—Although this is occupied almost wholly by characters, I think it is best to discuss its general import in this connection.

One of the first things that strikes us as somewhat singular, and as having some hidden meaning, is the fact that there are ten transverse lines (the numerals are not considered separately from the characters to which they belong) and seven characters or groups of characters in each line, making seventy in all—exactly the number of plates in the Manuscript. This arrangement by sevens cannot be accidental, and must therefore have had some particular meaning understood by the author and those for whose use the work was composed. That it does not refer to any of their divis-

ions of time I think is clear from what has been shown concerning their calendar. When I first noticed this arrangement I was of the opinion that it indicated the number of different subjects treated of in the manuscript, and that the page should be considered in columns. But subsequent study has led me to doubt the correctness of the first part of this theory.

We observe that the first (top) line consists of seven day characters as follows (counting from left to right as numbered): *Ymix*, *Ik*, *Akbal*, *Kan*, *Chicchan*, *Cimi*, and *Manik*. Two are obliterated, but there can be no doubt that the missing ones are *Kan* and *Chicchan*, a conclusion I had reached before I had seen Rosny's work or Dr. Brinton's article. Brasseur supplied the fourth space with *Ahau* and the fifth with *Kan*.

In this connection I call attention to the fact that on the left-hand slab of the Palanque Tablet there are just seven double characters under the large initiatory hieroglyph. Omitting the four characters by the upright of the cross, the number of columns is an exact multiple of seven, whether we omit or include the single ones in the transverse lines above the heads of the priests.

Counting the large initiatory character as four—as it covers four spaces—and each double one as two, there are 245 characters on the entire tablet—an exact multiple of seven. It may be worthy of notice also that there are just seven characters in and immediately around the cross (included in the above calculation), viz, two on the upright, omitted in Dr. Rau's scheme; two each side, and one immediately to the left of the lower end of the arrow shaft (also omitted in Dr. Rau's plan); that there are 17 ($=10+7$) characters in each column of the outer slabs.

This may be accidental, and, as a rule, but little confidence should be placed in such calculations; but this, taken in connection with what we find in this line in the Manuscript, is sufficient to lead us to believe that this septenary arrangement is not accidental, but intentional, and has some specific, hidden meaning.

The tablet on the inner wall of Casa No. 1 (Stephen's Cent. Am., II, 343) has on it fourteen columns, each with ten characters, making 140 in all; but those on the outer corridor of the same casa have each twenty columns of twelve characters. The tablet of Casa No. 3, which appears to be


closely related to the Tablet of the Cross, presents no such septenary arrangement, yet even here there are (counting long and short) seventeen columns, and in the extreme right and left columns just seventeen characters. I find this arrangement by sevens frequently in the Mexican Codices, but in most of these cases it is apparent that this results from the division of 13, as a corresponding arrangement by sixes accompanies, or is to be understood.

Returning to our plate, we may, as I think, make use of this septenary characteristic in determining some of the numerals that are partially obliterated. The red are sufficiently distinct except the missing ones in the upper line, in reference to which there is no question of doubt in the minds of students of this work; and the right-hand one of the line next to the bottom—the only question here being whether this is 18 or 19. Adding together all the numbers indicated by these red numeral characters (including the seven in the upper line), we find the sum to be 153, if we count the right-hand one of the 9th line 18, or 154 if we count it 19. As the latter number (154) is an exact multiple of seven, we conclude that this character is 19, and this agrees with the eroded space and the position of the dots over the remaining portion.

This septenary arrangement does not appear to hold good with the black numerals.

Returning to the first or top line we observe, as before remarked, that it commences with Ymix. According to Landa the Mayas began the computation of their days, that is, their calendar, with *one Ymix*. We quote his language here, as it is somewhat singular:

“It is curious to note how the dominical letter [of the year] always comes up at the beginning of its year, without mistake or failing, and that none of the other twenty letters appears. They also used this method of counting in order to derive from certain letters a method of counting their epochs and other things, which, though interesting to them, does not concern us much here. It is enough to say that the character or letter with which they begin their computation of the days or their calendar is called

one Ymix, which is this , which has no certain or fixed day on

which it falls. Because each one changes its position according to his own count; yet, for all that, the dominical letter of the year which follows does not fail to come up correctly."¹

It appears that the Chiapenec, Tzendal, Soconuscan, Quiche, and Cakchiquel calendars began the list of days with *Imox*, following it with *Ik* or *Igh*. This fact indicates a common origin of the calendars and of the people. It also renders the statement of some of the old authorities, that the names of the days were taken from the names of their deities and heroes, quite plausible. If this be true, we have possibly in the seven days here given the names of the seven chief deities; and the characters on the page are to be read in columns, each column having at the top one of these sacred names. The characters in the second line appear to accord with this view, as the first four, counting from the left, are those which I have attempted to prove indicate the four cardinal points. As a further examination of this plate would require me to enter into a discussion of the characters themselves I will defer further notice until I reach that subject.

If the figures furnish us with any evidence by which to judge of the contents, I decide without any hesitancy that Plates I*-X* of this part of the work relate to one general subject, to wit, the work and festivals of the apiarists. We may be somewhat surprised to find so large a portion of the Manuscript devoted to the festivals of this limited class, whose industry was generally considered of but minor importance except in certain localities. But here again, as I believe, we detect the cunning of the priests. This was a scheme to supply their board with honey. Moreover, it is quite probable this Manuscript pertained to a section where the production of honey was an important industry.

The objection to the theory that these plates relate to these particular festivals may be raised, that the insects represented by the figures on them are not bees, but beetles (coleopterous insects).

¹ Relacion de las cosas de Yucatan, p. 236. Y mucho de notar salga siempre la letras que es dominical en el primero dia de su año, sin errar ni faltar, ni venir a salir otra de las XX alli. Unsavan tambien deste modo de contar para sacar destas letras cierto modo de contar para sacar destas letras cierto modo de contar que tenian para las edades y otras cosas que aunque son para ellos curiosas, no nos hazen aqui mucho al proposito; y por esso se quedaran con dezir que el caracter o letra de que començava su cuenta de los dias o kalendario, se llama *Hun Ymix* y es este el qual no tiene dia cierto ni señalado enque craya. Porque cada uno le muda la propia cuenta y contado esso no falta el salir la letra qui viene por dominical el primero del año que se sigue.

The wings and abdomen are, it is true, very much like the elytra and abdomen of beetles, but there are abundant reasons for believing that the opinion I have advanced here, which appears to have been held by Abbe Brasseur de Bourbourg, is correct.

First. We find nowhere any reason for believing that beetles played an important part in the religious ceremonies of the natives of Yucatan.

Second. We do know, from the most satisfactory evidence, notwithstanding the assertions of some writers to the contrary, that bees were abundant in some sections, and there is reason to believe that they were domesticated and reared for their honey; in fact, the collecting of honey appears to have been an important industry in some localities. I quote in proof of this statement from Clavigero, Vol. I, page 68:

"There are at least six different kinds of bees. The first is the same with the common bee of Europe, with which it agrees, not only in size, shape, and color, but also in its disposition and manners and in the qualities of its honey and wax. The second species, which differs from the first only in having no sting, is the bee of Yucatan and Chiapa, which makes the fine, clear honey of Estabentùn, of an aromatic flavor, superior to that of all the other kinds of honey with which we are acquainted. The honey is taken from them six times a year; that is, once in every other month; but the best is that which is got in November, being made from a fragrant white flower, like jessamine, which blows in September, called in that country Estabentùn, from which the honey has derived its name.

"The third species resembles in its form the winged ants, but is smaller than the common bee and without a sting. This insect, which is peculiar to warm and temperate climates, forms nests in size and shape resembling sugar-loaves, and even sometimes greatly exceeding these in size, which are suspended from rocks or from trees, and particularly from the oak. The populousness of these hives are much greater than those of the common bee. The nymphs of this bee, which are eatable, are white and round, like a pearl. The honey is of a grayish color, but of a fine flavor. The fourth species is a yellow bee, smaller than the common one, but, like it, furnished with a sting; its honey is not equal to those already mentioned. The fifth is a small bee without a sting, which constructs hives of an orbicular

form in subterraneous cavities; and the honey is sour and somewhat bitter. The *Tlalpipiolti*, which is the sixth species, is black and yellow, of the size of the common bee, but has no sting."

He also adds, in a foot-note on page 68, the following statement: "The honey of Estabentùn is in high estimation with the English and French who touch at the ports of Yucatan; and I have known the French of Guarico buy it sometimes for the purpose of sending it as a present to the king."

Landa, in speaking of these festivals, makes particular mention of bee-keepers, or keepers of beehives.

Third. A careful study of these plates of the Manuscript I think will satisfy any one that the bee is the insect intended, although the figures are inexact.

Take, for example, the yellow figure in the middle division of Plate V*. The hair indicates that this is a female, and the long tongue shows it has a sucking apparatus.¹ There can be but little doubt that it is intended as a representation of the queen bee, or *Ahaulil-cab*, "the queen of bees."

As but few particulars in regard to the festivals of the apiarists have been recorded we have but little to guide us in an attempt to explain the figures in these plates. Landa states in reference to them that "In the month *Tzoz* the bee-keepers (or masters of the hives) prepare themselves for the celebration of their festival in *Tzec*. * * * * They had for their patrons the *Bacabs*, especially *Hobnil*. They made at that time great offerings, particularly to the four Chacs, to which they presented four plates, with pellets of incense in each one and painted round the border with figures of honey [honeycomb?], in order to obtain an abundance by this feast."²

Some of the figures appear to relate to the operations and incidents of the industry, as we have seen is true of those that refer to hunting and the hunters' festivals. We see here what appear to be their hives, either artificial—made for domesticated bees—or those cut from the tree containing the honey of the wild bees. Notice, for example, the figure in the hands of the female in the right of the lower division of Plate V*. The

¹ The bee is a mandibulate insect, but has an elongated tongue for extracting the nectar of flowers.

² See Appendix No. 3, E.

upper part bears a different mark from the lower. The lower part is marked with the chief characteristics of the symbol for Cauac, which, as heretofore stated, when given in this way appear to signify that the thing upon which they are placed is made of wood. The characters on the upper portion resemble Caban, and here probably signify *Cab*, "honey," or *Cabnal*, "a hive of honey"; but it is proper to warn the reader that in other places, as will hereafter appear, it is used to denote the material of which a seat is made. I think it more than likely that here it refers to the vessel in which the honey is contained. I presume this to be the case, because the individuals in the lower division of Plate IX* appear to have lifted the honey out of the vessel which lies at their feet; and we also see on the arm of the individual at the left of the lower division of Plate V* a figure marked with this same character. As he has a staff in his right hand he is probably returning from a successful bee-hunt, bearing his prize.

According to Landa the apiarists held two festivals during the year, one in the fifth month (Tzec), and the other in the eighth month (Mol); that is, in October and December. But according to the red and black numerals in these plates the one referred to appears to have been held annually, on the days Cib, Caban and Ezanab, in the 17th month—Kayab—corresponding to the first part of June. The female in the lower division of Plate V* is probably *Colebil-Xbolon-choch*, a goddess supposed to be the patron of the apiarists.

I would also call attention to the following additional items on these plates which are worthy of notice.

On Plate III*, upper division, next to the left-hand figure, we notice a kind of cross arising out of the body of a bee. On this cross are parts of a partially obliterated figure, which, upon close inspection, I decide without hesitation was that of a bird, reminding us of the bird on the Tablet of the Cross at Palanque and on crosses in several of the Mexican Codices. A foot, the tail, and parts of the wings are yet plainly visible. The right-hand figure of the same division also shows a plant in the form of a cross arising out of the body of a bee. I presume these relate to the requests to the gods for rain to make the plants produce flowers for the bees.

The figure at the right of the middle division of the same plate, which

I take to be the god of death, appears to be in the act of breaking a vessel of earthenware, which, as the presence of the cross-bones indicates, is intended to signify death. The character between the parts of the broken vessel probably signifies "divided" or separated.

The figures along the lower margin of the middle division of Plates VII*, VIII*, IX*, and X* are chiefly representations of offerings made to the gods of the bee-keepers, as here we see the leg of a deer, bread, maize, &c.

The broad rectangular red figures in the middle division of the plates last mentioned, and elsewhere, from which the bees are flying, may represent hives which were suspended by cords. If not, I am wholly unable to guess their meaning.

As I have not been able to group the remaining plates of the Manuscript in a satisfactory manner, I will content myself with referring to such figures as I think I can explain, without attempting, except in a few cases, to show their connection with others.

The females and god of death figured on Plate XI* appear to be weaving, or making ropes. The figures themselves indicate this so plainly as to leave no doubt in my mind in reference to it. Moreover, some of the written characters, as I think, correspond with this interpretation.

It is probable the figures are also symbolic representations of human life. The female figure, I presume, is intended to represent the goddess *Ixchel*, who, in addition to her other powers or attributes, was supposed to preside over the formation and birth of infants. The interlaced or cross-hatched bundle before her accords with this idea, if my interpretation of this reticulate figure be correct—that is, that it signifies *zih*¹ or *zihil*, "birth" or "origin."

The presence of the god of death so close at hand and the death symbol before him in the second division, and twice in the lower division, are doubtless intended to signify the uncertainty of human life. The Ezanab character on the head of this god in this place—as this is not usual—must

¹In writing Maya words I follow the orthography of the lexicons, but in referring to the signification am guided by what I suppose to have been the *sound*—for example, *tz*, *z*, and in some cases *ch* appear to be used to denote the same sound, or at least are the ruling elements of similar words having similar signification. As a matter of course the natives could make the distinctions in their pronunciation. I may also as well state here that I make no claim to a knowledge of the Maya language. I simply refer to the lexicons and grammar for such use as I desire to make of it in this paper.

have some particular signification especially applicable to what is here symbolized. As some of the cognate words, especially where the aspirate is used, denote "certainty," it is possible that it is used here to signify the certainty of death.

Plates XII* to XVII* undoubtedly relate to the manufacture of idols. In the second division of XII* (see Fig. 34) we see the artists painting them with the slip of yucca or maguey leaf, as described by Colonel Stevenson, and also by Mrs. Stevenson in her admirable little pamphlet on the manners and customs of the Zuni Indians.

In the third division we observe the priests consecrating the implements and the wood out of which their wooden idols are to be made. These plates, I think, refer to the manufacture of both kinds of idols, those of burnt clay and those of wood. The wooden block is here represented by the oblong figure with Cauac characters on it; the implement by the twisted figure on or against the block. My reasons for believing that this is a tool of some kind used in working wood is that in the third division of Plate XXIII*, I see it in the hands of individuals who are evidently doing something to trees. The trees appear to be severed as though cut off by a rude saw of some kind.

The figures in the second division of Plates XIII* and XIV* probably represent the idols in the kilns, or in their positions for baking; what the birds on them signify I am unable to say; possibly they relate to auguries.

The figures of bent trees in the third and lower divisions of Plate XIII* may denote the temporary cabins in which they worked.

The figures in the lower division probably represent what Landa alludes to when he says, "where they placed the wood with a great urn (tinaja) for to keep shut up (or inclosed) the idols all the time they were at work upon them."¹



FIG. 17.

We see here the priests offering incense in a singularly shaped burner (Fig. 17) over these unfinished idols.

The wood of which the images were formed was probably placed in

¹ See Appendix No. 3 H.

these urns and steamed, in order to soften it, or, after carving, to give the images themselves the desired color.

The attention of the reader is called to the figures on which the individuals in the upper division of this and of Plate XIV* are seated. The characters with which they are marked denote, as I believe, that they are wooden seats or platforms.

In the left-hand compartment of the third division of Plate XIV* we see one of the priests, or artists, dressed to represent the god of death, preparing the paint. The other two figures in the same division show them at their devotions in their cabins. In the lower division they are at work carving the images. The peculiar form of the instrument here figured (see Fig. 35) leads me to believe it was of metal.

In the upper division of Plate XV* are the "messengers," who were sent by the priests to procure the wood, with machetes in hand, chopping down the trees. Although Landa states that cedar alone was used in this work two different species of trees are evidently represented here, the black one doubtless the native ebony out of which their "black" images were carved.

Division two of Plates XV* and XVI*, and division four of XVII* and XVIII*, represent the artists at work carving images, but here the machete is the chief implement used.

The upper division of XVII* contains two groups of figures which I find it difficult to interpret satisfactorily. I think these are symbolic representations, and not pictographs. The left group may possibly signify that out of the earth (represented by the head in the lower left-hand corner) springs the tree (denoted by the curved beam with Cauac characters upon it); that it finally produces a god (the figure at the top) to which the people and priests offer incense and viands. If this be the true interpretation it is a severe satire upon their worship, and reminds us strongly of the sarcasm of the prophet Isaiah on the religion of the idolaters of his day.

The group to the right is possibly a figurative representation of a similar idea. At the base are two Tlaloc heads, emblems of fertility, out of which arises a tree in the form of a cross, on which is seated an idol. The plant probably signifies the "tree of life," or "life-giving plant."

Similar crosses found in other Codices, with two indicated halves, denote the meeting of two periods of time—that is, the close of one period and the commencement of another; but it is doubtful whether any such idea is connected with this one. I think it has reference to the newly-formed god, as we see the priest here also presenting offerings. The character at the foot of the priest, according to what we have heretofore ascertained, denotes bread. In the third division we probably see the newly-made images in baskets, covered with cloth, as stated by Landa, whose description of this work will be found in Appendix No. 3, I.

The persons represented in the upper division of Plate XVIII* are piercing their ears and sprinkling the blood on tortillas, or on the sacred stones *Acantun*.

In the upper division of Plate XIX*, and running over upon the right margin of XX*, and in the second division of the former, we have, as I believe, a series of figures relating to one subject. The earnest desire of the Maya woman for posterity is a fact well known; it is also well known that to this end it was their custom to beseech the aid of their deities with earnest prayers. In this series of figures we see, I think, this custom represented and its result. Commencing at the right of XIX* and moving toward the left, there is, first, the woman pleading with one deity, who turns his back upon her—that is, refuses to grant her prayer; the next one listens, but gives no favorable response; the third is more favorable; and now the first (shown again in the fourth figure) and the second (shown again on Plate XX*) are disposed to be gracious.

In the second division is shown the result. Proceeding from the right towards the left we observe the tightening girdle; next, one strand broken and then the other. The figures on which they are sitting are probably intended for mats.

Although this series may have a general application it is possible that it refers also to incidents in the life history of some goddess, or noted female of the early days of the nation.

The figures in the third division of XVIII* and XIX* may have some relation to the series first referred to; but, if so, I have not succeeded in finding it out.

The lower divisions of XIX* and XX* are occupied with figures of women bearing burdens. The substance borne by three out of the eight is denoted by Kan figures, which, as I have heretofore intimated, represent maize. The two burdens indicated by death symbols possibly denote the bones or ashes of their dead; I think it likely some of them denotes calabashes, gourds, or some vegetable of this kind.

This "death symbol," as I have called it, may also be used as the symbol of some such vegetable product, especially as there are one or two Maya words of similar sound that signify calabash, gourd, &c. The right-hand figure of XX* is carrying something which probably denotes squashes, and the two at the right of XIX* their lares and penates.

The figures in the third division of Plate XX* (see Fig. 86) form the sequel to the first and second of XIX*, but we are not to understand this as representing baptism,¹ as the sprinkling is not performed by a priest, nor is there a priest present; but rather as ordinary ablutions

The two figures in the left compartment, upper division of XXI*, are undoubtedly time symbols. The triangular Ezanab character in front of the Chac probably denotes the close of a luster or Cycle, as this is the last of the intercalated days of the Ix years. The circles on the curved figure may signify years or Ahaues.

The females in the lower divisions of XXI* and XXII* appear from their hair to be young unmarried persons, who are probably praying unto the gods, represented by the idols before them, to give them husbands, or to grant some special favor.

The upper division of Plates XXIII*–XXVIII* appear to relate to warfare. On Plate XXVII* we see the victors returning, leading their prisoners and captured animals, singing and dancing as they move along. By the wayside is one of the slain enemies being devoured by a vulture. Here the priest is seen also with his captive, but, as might be expected, it is a woman.

On XXVI* and XXV* we see the prisoners delivered into the hands of the priests to be sacrificed. Holding by the hair, as here shown, appears

¹As to the Maya baptism, see the quotation from Landa's *Relacion and Translation*, Appendix No. 5.

always to indicate that the individual is to be sacrificed. Repeated examples may be found in the Mexican Codices.

On the former there is also the figure of a bird plucking the eye out of one of the slain; but here, as I think, something more is intended than simply that a vulture is devouring a dead man. The peculiar eye and black body show very clearly that this is the same bird as that on the right in the upper division of Plate XXVIII*. In the latter we see the figures of two birds in deadly conflict. What is the meaning of this picture? I believe it is a kind of pictograph, somewhat similar to those drawn by modern Indians, and that it signifies a battle between two tribes, represented by these two birds. The bird with the red circle around the eye denotes that tribe to which the author of the Manuscript belonged, and which, as a matter of course, was victorious. This is shown by the figure on Plate XXVI* previously referred to. As further evidence of this we see the other bird a captive in the hands of the individual at the right hand of the upper division of Plate XXIII*.

On Plate XXIV* we observe the god of the conquered tribe a captive in the hands of the deity of the victors, and in front of them a soldier running away with captured spoils, and the priest with the captured woman. On Plate XXIII* is the figure of a Chac firing the dwellings of the conquered village. The last-mentioned figure is the one Brasseur interpreted as signifying the craters of a double volcano.

The reader is not to understand that I claim that the order in which these figures are mentioned is that in which they should come, nor is it claimed that they denote here a real battle, as it is probable they represent only a kind of play enacted during some festival; yet there is doubtless an allusion to some real battle or war. My principal reason for believing it represents only a play is the significant absence of weapons.

The following account of the celebration of a Pipil victory is taken from *Bancroft's Native Races*:

"When information was received from their war chief that he had gained a victory, the diviner ascertained to which of the gods sacrifice was to be made. If to Quetzalcoatl, the ceremony lasted fifteen days, and upon each day they sacrificed a prisoner. These sacrifices were made as follows:

All those who had been in the battle returned home in procession, singing and dancing, bringing with them the captives who were to be sacrificed, their wrists and ankles decorated with feathers and chalchiuites and their necks with strings of cacao-nibs. The high-priests and other ministers went out at the head of the populace to meet them with music and dancing, and the caciques and captains delivered over those who were to be sacrificed to the high-priests. Then they all went together to the court-yard of their *tuepa* or temple, where they continued dancing day and night during the time the sacrifices lasted. In the middle of the court was a stone bench on which the victim was stretched, four priests holding him by the feet and hands. The sacrificing priest then came forward, adorned with many feathers and loaded with little bells, holding in his hand a flint knife, with which he opened the breast of his victim, tore out the heart, brandished it toward the cardinal points, and finally threw it into the air with sufficient force to cause it to fall directly in the middle of the court, saying, 'Receive, O God, this thank-offering for the victory.' This sacrifice was public and beheld by all the people."