

**Eduard Seler**

**COLLECTED WORKS IN MESOAMERICAN  
LINGUISTICS AND ARCHAEOLOGY**

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**J. ERIC S. THOMPSON**

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**in Six Volumes\***



**FRANK E. COMPARATO**

*General Editor*

**LABYRINTHOS /1996**

This report by Eduardo Seler on animals of Mesoamerican art has been put into electronic format in memory of Frank Comparato.

Frank Comparato was the Field Director of the mapping and research at Lake Yaxha and Topoxte Island in the 1970's (of which Nicholas Hellmuth was the project director, and Miguel Orrego was the co-mapper of Yaxha). The most important result of these five seasons of work (in addition to all the maps) was the achievement of having Lake Yaxha and Lake Sacnab named a Parque Nacional (many years later Guatemalan individuals helpfully had this park enlarged to include Naranjo and other sites). But I am honored to have been a visitor to Guatemala whose heritage is an entire area saved from total destruction.

This work at Yaxha was funded via FLAAR.

For many years after this Frank Comparato was Manager of FLAAR, in California. During these years he formed his own publishing house, LABYRINTHOS. Frank Comparato edited and published many important scholarly publications on the Maya and on related cultures of Prehispanic Mesoamerica. What I especially respect is that this work was not done to gain commercial profit, but the purpose was to make material available to students, professors, and the interested lay public.

We thank Charles Comparato, the son of Frank Comparato, for giving his okay for us to scan this important document prepared and published by his father.

The pages were scanned by Senaida Ba, one of the Q'eqchi' Mayan student interns who helps us do the scanning. She worked over a period of two months. Each page was scanned manually. Since normal scanning software scrambles the text, she had to proofread every word and correct all the scanning errors, manually. We estimate she has found about 90% of the scanning errors, but its tough for one person to notice every single error.

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Comments by Nicholas Hellmuth, FLAAR, February 24, 2016.

\*With this volume the decision has been made to publish the *Collected Works in Mesoamerican Linguistics and Archaeology* in six volumes instead of five. Some cross references in Volumes I-IV to Volume V should be to Volume VI, and references to Volume VI (North and South America) should be to Volume VII.

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*Caecilie Seler-Sachs*

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### LANGUAGE OVERVIEW OF MEXICO AND MIDDLE AMERICA

(Oversize Map/Scale c. 1:5,000,000) *Walter Lehmann*

## Part E.

### THE ANIMAL PICTURES OF THE MEXICAN AND MAYA MANUSCRIPTS

/455/ In Part 5 of the preceding volume of this journal Dr. W. Stempell discussed the animal pictures of the Maya manuscripts from the standpoint of a zoologist. This work, undertaken at the suggestion of the late Dr. Forstemann and Dr. Schellhas, I greeted with great delight. For in the discussion of archaeological and allied problems it is of some importance whether we can determine a species in the manuscripts or on the sculptures only superficially or with zoological exactness, or perhaps cannot determine it at all.

Since as a general rule these animals are not merely ornamental, but play an important role as beings endowed with special powers and in part considered as more or less transcendental, it is of value also for archaeologists and ethnologists to know their characteristics, and naturally the first main question to ask is what kind of an animal is under consideration.

I have, however, deplored the fact that Dr. Stempell limited his study to the Maya manuscripts. At least equally rich material is present in the Mexican manuscripts and sculptures, with the additional advantage

that many cases can be determined more exactly through statements in the literature. In view of the similarity in the thought process, which is also expressed not uncommonly by a similarity in the conventionalized conception, it is therefore often possible to use the more easily determined Mexican material for verifying the interpretation of Maya forms.

This omission in the Stempell work has especially prompted me to review, in a style similar to his, the principal animals of the manuscripts and sculptures, not merely Maya, but also Mexican. As an archaeologist I also have some objections to make to the Stempell statements and interpretations. These I shall describe and attempt to substantiate.

I do not intend to go into details of modern zoological nomenclature. It is quite sufficient to discuss in general terms the species in question. /456/ For undoubtedly the same name was frequently applied to animals by the ancient races, and the same idea was connected with animals that are now classed under different zoological species.

## MAMMALS

### 1. The Monkey

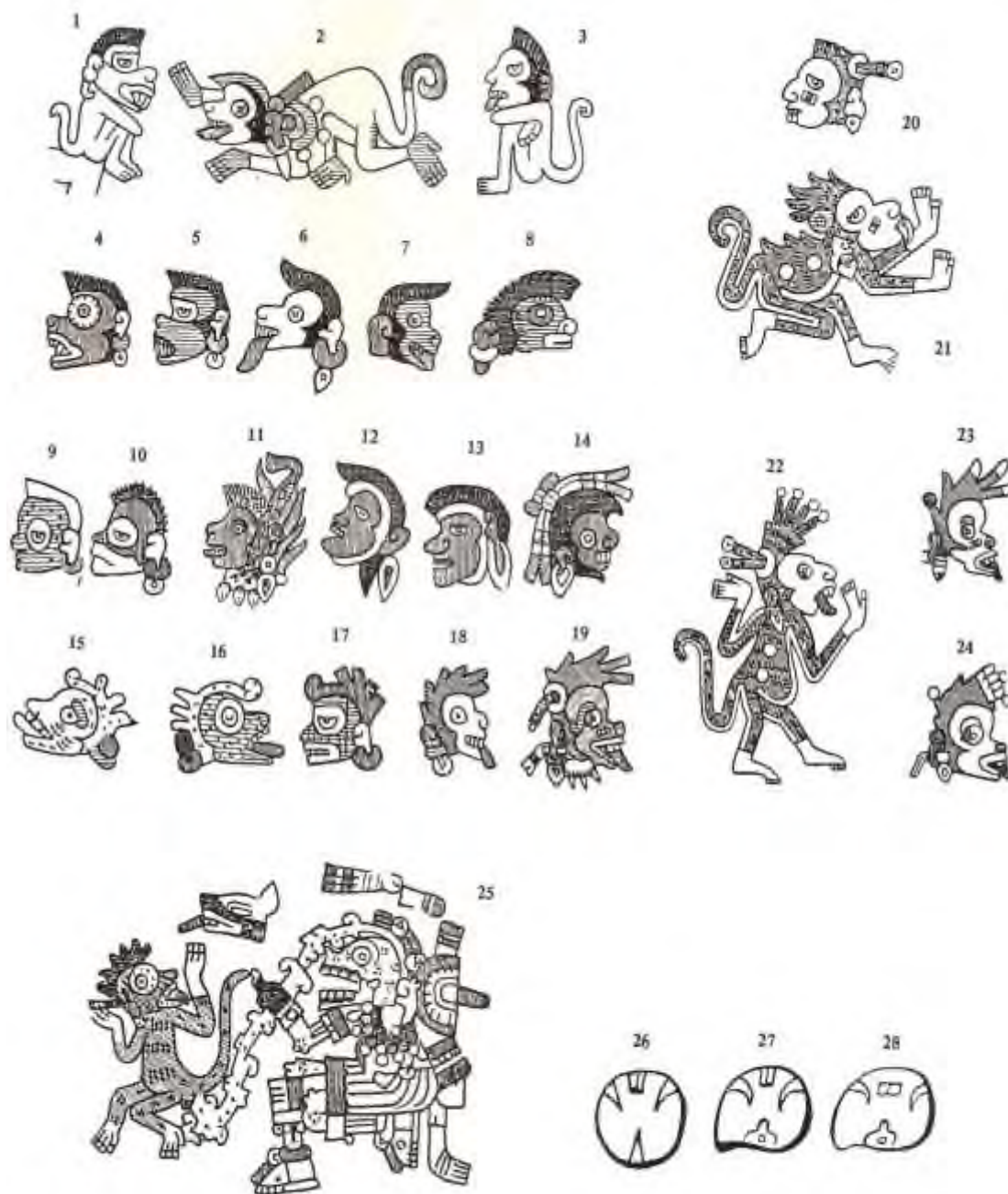
The monkey played a leading part in the thoughts of the Mexican and Central American races. It was to them the droll and frolicsome animal, and as such was connected with song and dance and also with skill in art in general, but on the other hand also with forbidden pleasure, with sin and its punishment, death. And like the *hanuman* monkey of the Sanskrit Indians, it was the *vataja*, "wind born."

In the picture of Codex Vaticanus A that illustrates one of the four prehistoric periods of the world, which is said to have been ended by violent winds, we see Quetzalcoatl, the wind god, represented as regent, and mutilated trees and leaping monkeys among clouds of dust.

For the men of this "wind sun," the age of the wind, were changed into monkeys.

The monkey is the eleventh of the 20 day signs of the Mexicans and Central Americans, and Xochipilli, the young maize god, the deity of generation but who is also the bird singing in the early morning, the god of music, dancing, and feasting, was its symbol.

The Mexicans seem to have had but one name, *ocomátli*, for this animal; the Zapotec and Maya tribes distinguished two kinds: the howling monkey ("sariguato" of the Spaniards = *Mycetes* sp.), *pilláo*, *pillóo* in Zapotec, *baatz* in Mayan, and spider monkey or "sápajou" ("mico" of the Spaniards = *Ateles* sp.), which the Zapotecs called *pixiyo*, the Yucatecs, *maax*, and the Maya tribes of Guatemala, *c'oy*, to which, however, the name



Figs. 1-24. The monkey: Figs. 1-7. Nuttall 77, 7, 1, 83, 79, 26, 8; Figs. 8-10. Vaticanus B 4, 75, 66; Fig. 11. Magliabechiano 12 verso; Figs. 12-13. Aubin Tonalamatl 14, 6; Fig. 14. Telleriano-Remensis 19; Figs. 15-17. Vaticanus B 1, 5, 69; Fig. 18. Nuttall 38; Fig. 19. Bologna 2; Figs. 20-24. Borgia 1, 21, 13, 8,

4. Fig. 25. The monkey as sinner, opposite the death god, regent of the tenth day sign (*itz'kunil*, "dog"). Vaticanus B 32. Fig. 26. Glyph for *chuen* (after Landa). Figs. 27-28. Glyph for *chuen* (Dresden).



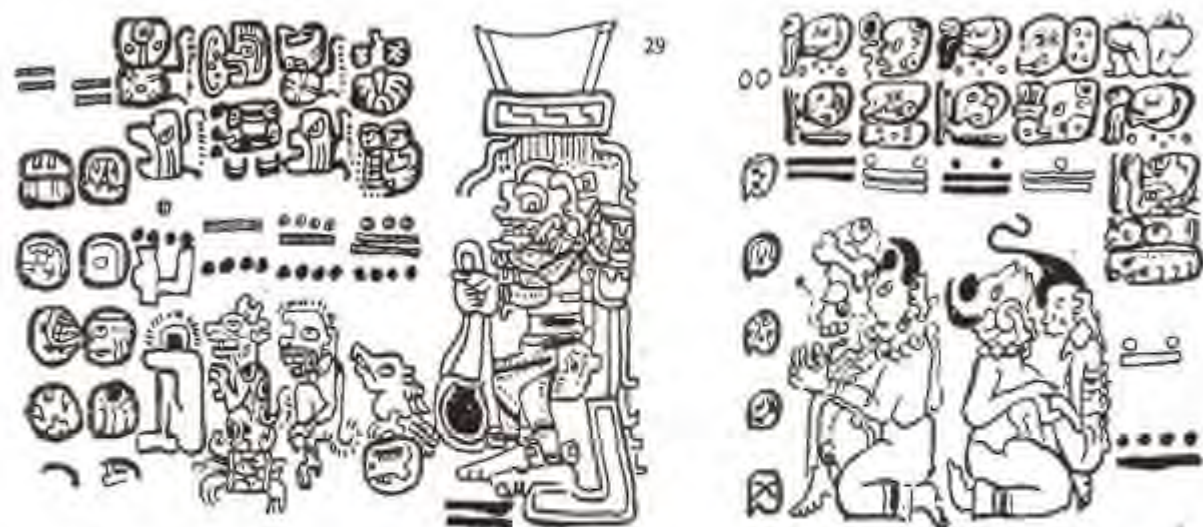


Fig. 29. The animals of the four cardinal points: man, dog, monkey, death bird. Tro 25\*c.

Fig. 30. The monkey. Copan, Stela A 22.

Fig. 31a. Dresden 22c, 23c. b. Tro 20\*a, 19a.

Figs. 32-33. The cloud serpent, god of the north in Maya manuscripts, Dresden 5a, 13b.

Fig. 34. The cloud serpent, god of the north. Cortés 10c, 11c.

*chauen* or *chuen* must also have been given by the Maya peoples.

According to the names that occur in the lists of day signs, we might think that the first, the howling monkey, was of most interest to these races. But the illustrations look more as if a mico were the model. Prognathism and large grinning teeth are always more or less distinctly indicated; also, the comparative baldness of the face (with hourglass-shaped outline) divided into an upper part containing the eyes and a lower part enclosing the mouth. Finally, the bristly crest of hair usually rises above the forehead. All this and the slight indication of thick hair on the body are better adapted to the character of Ateles.

The protruding tongue in many of the pictures emphasizes the animal nature of the face still more strongly. Figures 1-24 (monkeys from the Mexican manuscripts) /457/ are in the main representations of the eleventh day sign, and accordingly there is not the slightest doubt that they are monkeys. In most of the pictures it is clear the monkey was regarded chiefly as a mythological animal, for in most cases it is ornamented with an ear pendant and in a few cases with a collar.

But these /458/ ornaments, particularly the first, may also be regarded simply as an expression of the dance animal. In most cases (Figs. 2, 11-14, 19-24) the ear pendant has the form of what the dance god wears in the picture writings—clearly a rattling pendant (*oyoualli*) cut from the hard shell of a marine univalve. In one case (Fig. 1) the pendant resembles that of the god Quetzalcoatl. The collar is a strip of skin (Figs. 11, 19) such as Quetzalcoatl also wears. In Fig. 14 the monkey is also ornamented with Quetzalcoatl's head band.

Other insignia are to be designated as characteristics of Xochipilli, or Macuilxochitl, god of music, dancing, and gaming, e.g. the little many-colored rectangular fields on the cheeks in Figs. 19-21, and 23. In Fig. 11 the monkey is made up exactly like Xochipilli, the young maize god, /459/ since its face is red, and behind its head there is a young ear of maize in its husk. It is a very peculiar characteristic that frequently green *malinalli* grass takes the place of the hairy coat of the monkey (Figs. 17-19, 21-25). This, of course, also has its mythological reason.

The *malinalli* grass to the Mexicans was the symbol and mark of transitoriness and revival, and is, therefore, represented by the pulque gods in the list of the regents of the day signs. The two-fold nature of the pulque gods (actually, moon deities), who are the producers of vegetation and representatives at the harvest blessing, but at the same time are also the embodiment of intoxication, drinking bouts, and sexual excesses, is expressed, I think, in this disguise.

Finally, in Figs. 15, 16, the hair on the monkeys' heads is drawn as *cuitlatl*, "excrement," and is painted yellow. The monkey is characterized thereby as a sinner, as he also appears in Fig. 25, where he is represented opposite the death god, regent of the tenth day sign.

In the Maya manuscripts and sculptures the monkey is not as frequent as in the Mexican manuscripts. This is due to the fact that in Maya glyph writing the eleventh day sign is not expressed, as in Mexican picture writing, by the more or less realistic figure or head of a monkey, but by the conventionalized sign, Figs. 26-28—a sign that apparently is intended to denote the open jaws with grinning teeth of the animal and the erect penis. The sign is frequently used on Maya monuments to denote the *uinal* (20-day) period.

Of course, monkeys are not wholly lacking in the Maya records. The best known and most distinct are on Codex Tro 25\*<sup>e</sup> c<sup>2</sup> (Fig. 29). Here there are, within the first 26 days of two Tonalamatls, four animal forms or animal demons, to whom four cardinal points are inscribed, the signs being given above them: to the east (*likin*) a man and a gourd drum; to the north (*xaman*) a dog above a tortoise; to the west (*chikin*) a monkey; to the south (*noho*) an owl above the *cimi* "death" sign. The mythical meaning of this combination is not at all clear.

But the meaning is scarcely what Forstemann has assumed in his commentary on the Madrid manuscript. For this interpretation it was necessary to transpose the signs /460/ of the cardinal points and to explain this second animal as a jaguar—incorrectly, I think. The fact that the south is represented by the death bird corresponds to the *Xma kaba kin* ceremonies. That the monkey is assigned to the west, however, is intelligible. The west is the land of birth and of generation, the home of the maize. And indeed, in Fig. 11, we see that the monkey is exactly equivalent to Xochipilli, the young maize god.

And that the third animal in Fig. 29, in fact, is intended for a monkey will not be seriously doubted by anyone. The hands on the hand legs, the hair crest rising above the forehead, the bald part colored red at the mouth, and the tail are characteristics too distinct. Here the tail is somewhat short, it is true, but we must reckon with the carelessness of the artist rather than rack our brains over some zoological significance for this representation. An excellent and characteristic picture of a monkey head occurs as a glyph on Stela A, Copan (Fig. 30). It almost seems as if this were intended for a monkey clad in *malinalli*.

That a monkey can be represented, as Schellhas assumed, by the effaced figure of Dresden 22e (Fig. 31a) is impossible. Here, as indeed the parallel passage of





Fig. 35. Glyph of the monkey? Dresden 15b.  
 Fig. 36. Glyph of Tzinacantlan. Mendoza 14, 16.  
 Fig. 37. Glyph of Tzinacantepec. Mendoza 9, 15.  
 Figs. 38-40. The bat god, demon of the east: Fig. 38. Vaticanus B 24; Fig. 39. Fejérváry Mayer 41; Fig. 40. Borgia 49.  
 Fig. 41. Uinal zo'tz (after Landa).

Fig. 42a-c. Uinal zo'tz. Dresden 46, 47.  
 Fig. 43. Uinal zo'tz. Copao, Stela M.  
 Figs. 44-46. Uinal zo'tz, Palenque: Fig. 44. Temple of the Inscriptions, west side, P8; Fig. 45. Temple of the Cross, R13; Fig. 46. Temple of the Sun, Q12.

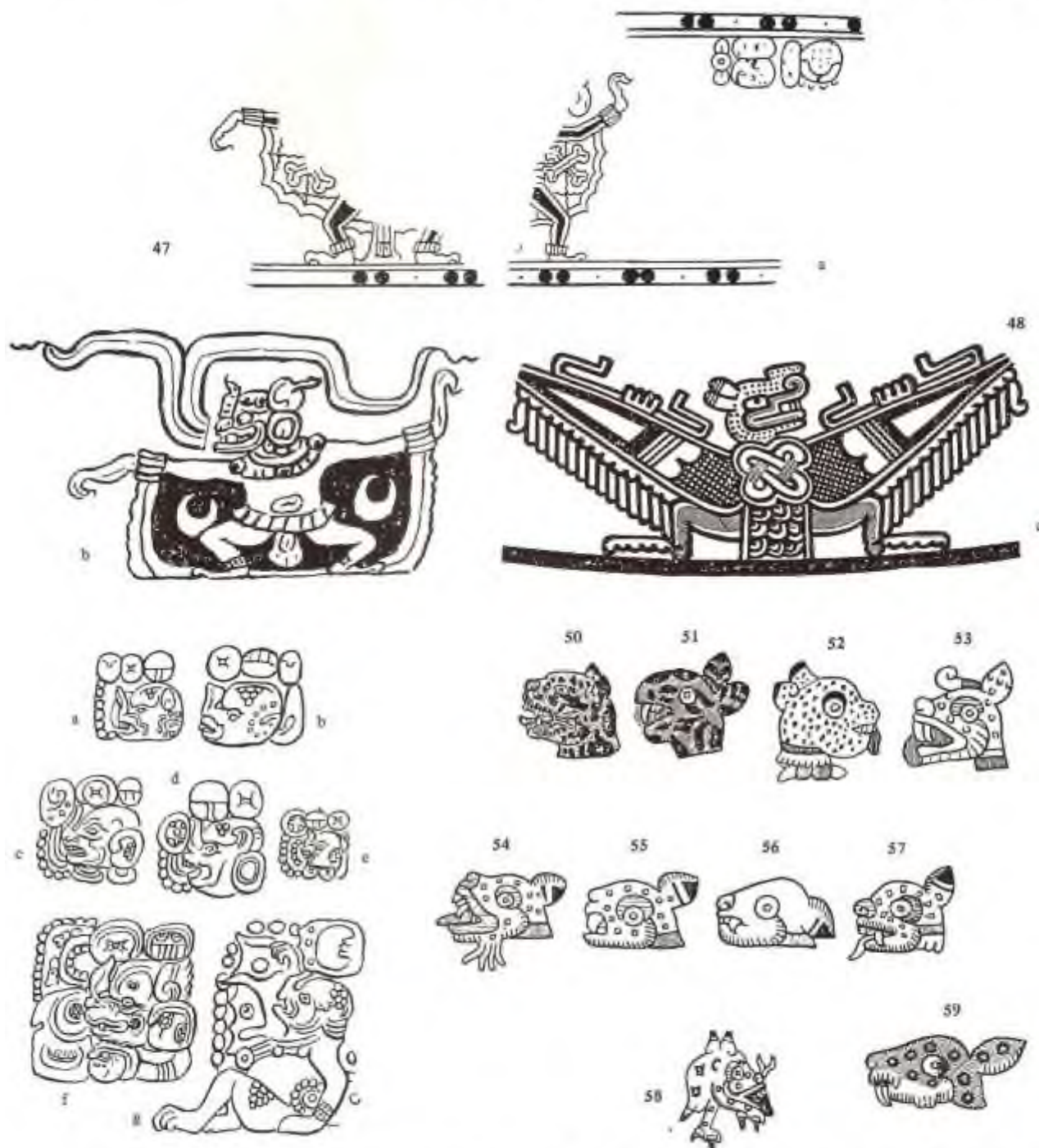


Fig. 47a,b. The bat god. Designs on vases from Chamá (Alta Vera Paz) excavated by Erwin P. Dieseldorff.  
Fig. 48. The bat demon, Río Ulua (after Gordon, pl. III).

Fig. 49. Glyph of the bat, Copan. a,b. Altar U. c. Stela A 32. d. Stela A 41. e. Stela N 27. f. Stela I 26. g. Stela D 13.  
Figs. 50-68\*. *ocelot*, the jaguar: Fig. 50. Mugliabecchiano 13;

Tro 20\*a (Fig. 31b) proves, the subject is the copulation of a woman with a death demon who, in the Codex Dresden, has the form of a skeleton. In the second group, however, this skeleton has a large tuft and long locks of hair, almost suggesting the woman's coiffure of the Dresden-which does not appear on other skeleton figures of this manuscript.

/461/ Still less can the god, fifth in the series of 20 deities of the Codex Dresden (Figs. 32, 33) and who is god of the north, be said to have anything to do with the monkey Stempell thinks the head of this god so frequently represented. For the lateral position of the nostril very closely resembles the head of a New World monkey, as Shellhas has correctly remarked. In reality this has nothing /462/ to do with a lateral nostril or any other form of a nostril.

The outline of this curious face is formed by the body of snake, drawn like a coral otter, which forms a loop above the mouth, thus producing a kind of nose, and the end of its tail, enclosing the mouth, hangs down the chin like a beard. Where colors are given (Fig. 34), all of this serpent body is white and in distinct contrast to the rest of the face and body, which are blue. It is the god who corresponds to Mixcoatl, "Cloud serpent," of the Mexicans and is properly the star god and therefore the representative of the north, the polar region, the ever-encircling planets. As stated, he has no connection with the monkey. Thus the Forstemann explanation that the Mayas represented the constellation of the north as a monkey which, holding onto the pole with its tail, rotates around the pole, can be assigned to the realm of fantasy.

On the other hand, I find the idea of the monkey illustrated in a glyph in Fig. 29 that is used to designate both the man assigned to the east and the monkey assigned to the west. I see this glyph indicated more distinctly and more characteristically, e.g. on Dresden 15b (fig. 35). There, it is always the second of the three groups of hieroglyphs, i.e. the second, fourth, and /463/ sixth glyph of the upper row. While in the form of the Codex Tro (Fig. 29) the glyph suggests the monkey only by animal snout, in the Dresden (Fig. 35) there is a distinct reference to the monkey in the fact that the eye is replaced by the *chuen* sign, that of the monkey in the day sign series.

The picture of the monkey does not, however, occur L at this place, but there are descending figures of deities (the rain god Chac and a death goddess) whose limbs end in branches and foliage. In my opinion the ideas underlying the representation of the monkey among these people was the *nicteel uuah*, *nicteel haa yaal*, "rain of flowers, flood of flowers," of which so much is said in the Books of Chilam Balam, and which goes hand in

hand with *pp'entacech calpach*, "excessive adultery," i.e. that which transgresses. We have seen this in the Mexican pictures of the monkey.

Frequently, and indeed both in the Mexican and Maya areas, the monkey is used to decorate articles of use. Hermann Strebel,<sup>3</sup> who explains the occurrence of this motif on the pottery in his collection from the Totonac district, central Vera Cruz State, and gives excellent illustrations, calls attention to the fact that the accompanying ornamentation consists in the main of steps and spirals, or meanders, by which the relation to Quetzalcoatl, the wind god, is indicated. In the Codex Borgia this god appears quite regularly with a fillet, displaying in black on a white ground the /464/ stepped scroll, or steps joined by a meander. Another direct connection of ideas, however, is also supplied by the prehensile tail of the ape, which in fact is frequently used alone, as an independent ornament, to fill empty spaces.

## 2. The Bat

The bat is *tzinacantli* in Mexican, *piquite ziña* or *qiti piciña* in Zapotec, and *zo'tz* in Mayan. The last two names designate it simply as the "hairy animal." The Zapotec name means "mouse skin," and the Mayan is closely related to *tzotz*, "hair, skin." It is perhaps not out of the question that the Mexican name, which with another vocalization could originally have been *tzonacanfli*, may also be traced to the same idea.

Only very poor pictures of this animal are given in names of cities containing the word *tzinacantli*, "bat"; Fig. 36, Tzinacantlan, "Bat place," a city not far from Toluca, and Fig. 37, Tzinacantepec, "Bat mountain" (or "Bat city"), one of the towns of the cacao country in the province of Soconusco.

But the bat has a special and very curious mythological significance. It is the *c'ama-zo'tz* (as it is called in the Quiché legend), the "head-tearing-off bat." As such, it or rather a bat demon is represented in Figs. 38-40. Such a significance cannot of course have developed from observation of the nature and manner of life of this little animal, even if the blood-sucking vampire is considered, and its attacks on animals and men exaggerated into the fabulous. Here the bat stands simply for "darkness." and it is what passes over the shining disk, the darkness dividing the moon's disk, that is the idea underlying this picture and expressed by this creature.

In the Maya area "bat" is the name of one of the 18 *uinal* or so-called months of 20 days (Figs. 41-46). It is pictured in full figure on vessels of the Alta Vera Paz (Fig. 47a,b). An excellent picture of one is also given by Dr. Gordon<sup>4</sup> as a vase fragment from the Uloa Valley, Honduras (Fig. 48). The head or the whole figure of





Fig. 51. Aubin Tonalamatl 15; Fig. 52. Telleriano-Remensis 19; Fig. 53. Vaticanus B 51; Figs. 54-57. Nuttall 80, 79, 58, 40; Fig. 58. Bologna 7; Figs. 59-61. Borgia 4, 21, 12; Fig. 62. Bor-

bonicus 11; Fig. 63. Borgia 10; Fig. 64. Vaticanus B 84; Figs. 65-68\*. Nuttall 24, 50, 46, 11, 59.

Figs. 69-71. Mixcoatl, the sun god, and ocelotl, the jaguar, de-



mon of the north: Fig. 69. Vaticanus B 25; Fig. 70. Fejérváry Mayer 41; Fig. 71. Borgia 50.

Fig. 72. Large jaguar (*ocelotl*) figure of stone. In the court of the Secretaría de la Justicia, corner of Primera Calle del Reloj and Calle Cordobanes, México.

Fig. 73. *teyolloquani*, the beast of prey that eats men's hearts, and the diviner. Fejérváry Mayer 15.

Fig. 74. Glyph of *ocelotl*, the jaguar.

Figs. 75-78. Glyph of *lx*: Fig. 75. after Landa; Fig. 76. Dresden; Figs. 77-78. Tro.

/465/ the bat in union with some other elements is an extremely common glyph on Maya stone monuments (Fig. 49).

In Maya representations especially the bat is quite distinctly characterized by an erect, skinny nose plate, wing membrane (Figs. 47, 48, 49g), sharp little teeth, and hairy ear (Figs. 46, 49t). But also in the Mexican pictures, at least in Fig. 39, the skinny nose plate is distinctly drawn on an otherwise ape-like head, while in Fig. 38 it is wanting or indistinct, and in Fig. 40 it is replaced by another process difficult to explain. Thus it is always the vampires (Phyllostoma), the blood suckers, /467/ that have been the models. The wing membrane is only realistically drawn in Fig. 49g. The natural likeness is entirely lost in the Codex Borgia representations, since instead of a wing membrane only a pair of butterfly wing-like affairs is drawn on the arms, and there is a similar tail pendant (Fig. 40).

In some of the Maya pictures the bat's nocturnal nature is expressed by the *akbal* sign, "night," placed above the small eye, more or less as an eye lid or brow. Others have on the forehead or limbs the elements of the Maya day sign *cauac*, which means, strictly, "thunderstorm," but is probably also thought of as a symbol of the dark thunderclouds.

### 3. The Jaguar and the Puma

In Mexican "jaguar" is *ocelotl* or simply *requani*, i.e. beast of prey, while "puma" is *miztli*. In Zapotec "jaguar" is *peche-tao*, "large animal," while "puma" is *peche piáha*, *peche yáche*, or *pequeca*; the second name means "yellow animal," the others probably mean the same as the Mexican *tequani*, /468/ i.e. "biting animal," "beast of prey." In Mayan "jaguar" is *balam*, "puma," *coh*.

I consider it correct to discuss these two animals together, because they are connected-not in the language, it is true-but in the illustrations. The head, Fig. 56, and the full figure, Fig. 68\*, 5 from the Codex Nuttall, represent a plain yellow, unspotted cat, but stand in the respective places for the day sign *ocelotl*, "jaguar," and also in all other characteristics are like the jaguar pictures of this manuscript. It might be assumed that the spots were simply forgotten.

/469/ The large cat painted plain brown (Fig. 81) on page 47 of the Dresden, which Stempell therefore pronounces a Central American cougar (*Felis bangsi costaricensis* Merr.), is designated glyphically by the same spotted cat's head in union with the element *chac*, "red," /470/ as a true jaguar, Fig. 79, on Dresden page 8, and is, at the same time homologous to the jaguar, Fig. 64, of Codex Vaticanus B. For this beast of prey,

of course, is here not a hunting animal, as Stempell assumes, but the demon of the north, symbol of the god Tezcatlipoca, who is struck by the spear of Venus in the second period of that planet.

The jaguar was to the Mexicans, first of all, the strong, the brave beast, the companion of the eagle; *quauhtli-ocelotl*, "eagle and jaguar," is the conventionalized designation for brave warriors. In particular, however, the jaguar was to the Mexicans the animal that, at solar eclipses of the sun, eats the sun, and therefore represents darkness /471/ and the earth. The jaguar is the fourteenth of the 20 day signs, and its likeness there is Tlacolteotl, the moon goddess.

The same idea leads to Tepeyollotli, the god of caves, the representative of the west, the setting sun, appearing in jaguar guise, and to Tezcatlipoca, the nocturnal one, the magician-strictly, the moon appearing in the evening sky-being embodied as or represented by a jaguar, as, for instance, on Codex Vaticanus B 64 and on Dresden page 47. Hence, also among the Mexican-speaking tribes of Guatemala we have, as name of the fourteenth day sign, not *ocelotl*, "jaguar," but *teyolloquani*, "magician," and likewise in Yucatan not *balam*, "jaguar," but *h-ix*, or *ix*, and in Cakchiquel, *yiz*. This corresponds to the Quiché-Cakchiquel word *ah-itz*, "the diviner."

The prominent mythological significance of the jaguar has resulted in the picture of this animal occurring very often in the manuscripts and on the sculptures. In Figs. 50-61 the jaguar stands for the fourteenth day sign. Figure 63 is the jaguar as the likeness of Tepeyollotli; Fig. 64 is the jaguar as the representative of Tezcatlipoca, who is struck by the spear of Venus; Figs. 69-71 show the jaguar as the demon of the north, the god of the north, Mixcoatl, the star god.

In most cases the round cat head and the spotted marking are distinct. That a somewhat elongated head, however, must occasionally also be pronounced a cat head is proved by Fig. 59, one of the forms /472/ that the fourteenth day sign has in the Codex Borgia. Accordingly, we may perhaps have to class as jaguars the two unspotted animals in Fig. 73, which represent the *teyolloquani*, the eater of hearts, the diviner, since, as we have seen, the jaguar is the diviner.

In many cases the spots are conventional circles; in others, however, they correspond better to the natural shape, and in Fig. 79 of the Dresden Codex there are also some spots in the centers of the circles by which the jaguar is distinguished, e.g. from the panther skin. In different pictures (Figs. 63, 66, 69, 79) the larger spots in the middle line of the back and on the outside of the limbs are given with great distinctness. The corresponding weaker coloring on the belly and the more plentiful





Fig. 79. *balam*, the jaguar, fourteenth in the series of 20 gods. Dresden 8a.

Fig. 80. *balam*, the jaguar, likeness of Kinich ahau, the sun god, regent of the *e'znab* years of the north. Dresden 26a.

Fig. 81. *balam*, the jaguar, demon of the north, struck by a spear of the planet Venus in the second period. Dresden 47.

Figs. 82-85. *balam*, the jaguar: Figs. 82-83. Pérez 19, 23; Fig. 84. Tro 16a; Fig. 85. Tro 17c.

Figs. 86-116. *itz'qulniti*, the dog: Fig. 86. Borbonicus 20; Fig. 87. Mugliabecchino 12 verso; Fig. 88. Auhin Tonalamatl 9; Fig. 89. Telleriano-Remensis 12 verso; Figs. 90-92. Ilorgia 3, 21, 13; Figs. 93-97. Vaticanus B 6, 8, 7, 1, 54; Figs. 98-106,



Nuttall 3, 11, 20, 34, 6, 17, 72, 78, 58; Fig. 107. Laud 26; Fig. 108. Fejérváry Mayer 44; Figs. 109-111. Vaticanus B 90, 90, 68; Figs. 112-114. Nuttall 79, 74, 48; Figs. 115-116. Fejérváry Mayer 41, 39.

Fig. 117a,b. The dog Xolotl, regent of the seventeenth day sign *olin*, "motion." Vaticanus B 29, 93.

Fig. 118. The dog Xolotl, regent of the seventeenth Tonalamatl section. Borgia 65.

hair on the belly side are everywhere more or less clearly marked.

In the Mexican records the tip of the ear is usually black, while in the Codex Dresden (Figs. 79, 81) the tip of the tail is painted black. This is therefore not a tassel, as Stempell assumes. A round, pointed ear with black tip, spots, and uncolored hairy interior is frequently drawn, in the Mexican picture writings, in place of a jaguar head or body to denote the fourteenth day sign (Fig. 74). And these elements of the jaguar skin are those that alone form the glyph of the fourteenth day sign in the Maya manuscripts (Figs. 75-78).

In some pictures (Fig. 54) hair on the cheeks and under part of the jaw is indicated, a characteristic that, as we know, distinguishes both the lynx species and the Bengal tiger, but which is also not lacking on the jaguar and other species of cats. This appearance of hair is exaggerated on the large stone figure, Fig. 72, excavated at the site of the ancient temple in Mexico City, in the court of the Secretaría de la Justicia.

In the Codex Tro the marking is more uncertain. Figure 84 (Codex Tro 16a) is still quite distinctly recognizable as a jaguar. Indeed, its glyph is in the glyph group above. /474/ Likewise, Fig. 85 (Codex Tro 17c) will also belong here, although the glyph has somewhat different elements, since with the spotted cat head there is not, as elsewhere, the element *chac*, "red," but the numeral sign *call*, "four." Both figures are distinguished by a special skin marking, since with the large black spots there are designs of irregular shape enclosing lines of dots.

#### 4. The Dog

The dog in Mexican is called *itzcuintli*, a word that is evidently connected with *itztli*, "sharp." The other word, *chichi*, is merely a word of caress. Correspondingly, in the Guatemalan languages the dog is called *tz'i* or *ch'i*, a word that is identical in meaning with *tz'i*, Mayan *chi*, "to bite." The Yucatecs call it *pek*. Here the primal idea seems to be "to lie flat on the ground." To this the Zapotec word for dog corresponds, *peco*, and the Huastec word *picó*.

The Mayas also have a special word for the hairless dog, which they call *bil*, literally meaning "shaved off." For this variety the Zapotecs have the name *peco-xolo*, which is a translation of the Mexican *xolo-itzcuinli* and means literally "monstrous dog."

Besides the turkey, the dog was the only domestic animal of Central America. Both served the same purpose—they were edible. But the dog, in addition, had a ceremonial importance of which I shall speak presently. Nehring<sup>6</sup> has proved that in ancient Peru there were dif-

ferent races of dogs there, among others a pug dog or bull dog species. In Central America different dog species also seem to have existed. We have no accurate information except about the color and hair.

I have already mentioned there was an almost hairless race. Hernández<sup>7</sup> gives the following description of this species:

... *habet peculiare nullis pilis tegi, verum molli tantum ac depili cute, fulvo atque cyaneo colore maculata.*

... has this characteristic, of not being covered by any hair, but only by a soft and hairless skin, splotched in deep yellow and bluish color.

In general there were white, black, white with black spots, and dogs of tawny yellow. This is clearly stated in one passage of P. Sahagún's history.

Under the symbol of the dog, the animal with the sharp tooth, fire was symbolized by the ancient Mexicans and Central Americans, and, particularly, fire falling from the sky, i.e. lightning—as we shall see shortly in the pictures of the Maya manuscripts. The lightning that cleaves the earth, however, seems to have been considered by these old tribes as the opener of roads in the underworld, and therefore the idea existed that one could travel safely in the underworld only with the help of a dog, who alone was in a position to guide the spirits of the dead across its great stream.

/475/ Accordingly, the Mexicans buried a dog with their deceased, but it had to be of tawny yellow color. We read in Sahagún:<sup>8</sup>

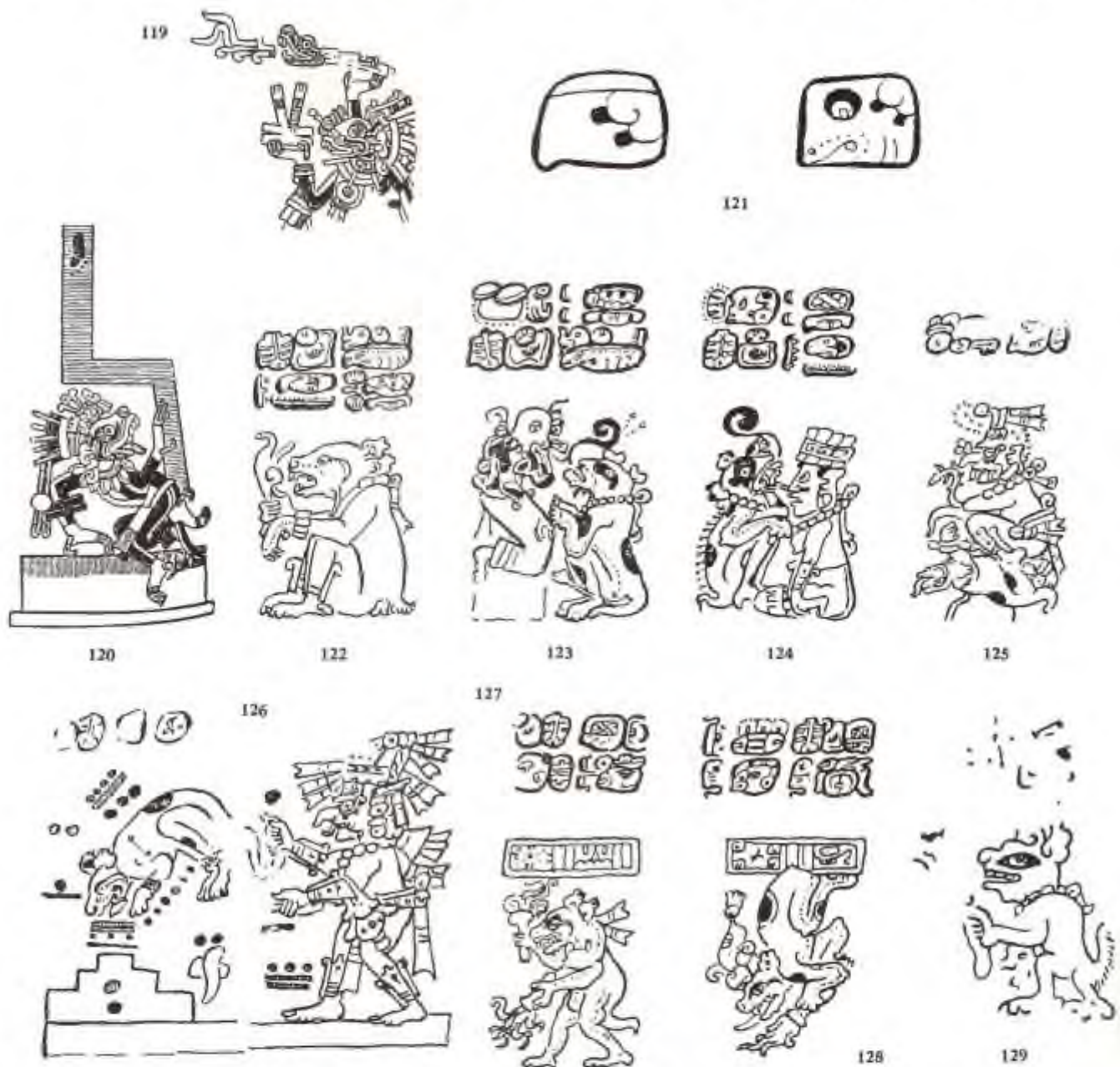
And they said that of the white and the black dog, those having the black color could not lead across to the death realm. They said the white dog says "\ have to wash myself first," and the dog that is black says, "\ have to paint myself black first." Only the red dog can transport (to the death land). And there in Chicunauhmiclan (the ninth hell), there is always one with them.

Among the Mexicans the dog was the tenth of the 20 day signs, and it was illustrated by the picture of the death god or by the sun god and the death god, i.e. the sun that descends to the dead.

In its practical, ceremonial, and mythical significance we find the dog pictured with comparative frequency in the manuscripts. In the Mexican manuscripts it is usually drawn white with large black spots. White alone occurs (Figs. 86, 99, 103, 107, etc.); and also black (Figs. 90, 93, 94, 98). As a rule, however, there is a black spot at least in the region of the eye. Figures 101, 102, 110, for example, are yellow or tawny yellow; Figs. 108, 116, are entirely red. Skin and tail are usually distinctly hairy.

The black spot over the eye sometimes appears in the Codex Nuttall as round white spots on a black ground





Figs. 119-120. The dog Xolotl, hurling the fire serpent (lightning) and plunging down (from the sky). Borgia 37, 38.

Fig. 121. The tenth Maya day sign, *oc*.

Fig. 122. *pek*, the dog, the eleventh in the series of 20 gods. Dresden 7a.

Fig. 123. *pek*, the dog, and the vulture. Dresden 13c.

Fig. 124. *pek*, the dog, and the sky goddess. Dresden 21b.

Fig. 125. The fettered dog, caught by Chac, the rain god. Dresden 29a.

Fig. 126. The fettered dog, thrown by Chac, the rain god, onto the altar (a stone pyramid). Dresden 30, 31a.

Figs. 127-129. The dog, the lightning animal: Fig. 127. Dresden 39a; Fig. 128. Dresden 40b; Fig. 129. Cortés 13a.



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Figs. 130-132. The lightning animal: Fig. 130. Dresden 36a; Fig. 131. Tro 23\*a; Fig. 132. Tro 26\*, 25\*a.  
Fig. 133. The lightning animal and the black god. Tro 3, 2a.

Fig. 134. Columns of glyphs. Dresden 58.  
Fig. 134\*. Glyph for "boring." Dresden 4, 5b, Tro 19b, 19c.

(Figs. 104, 106, 114). This is the *cicitallo* or starry-sky painting, the sign of the firmament, or night. A characteristic peculiarity in the Codices Fejérváry Mayer, Laud, Nuttall, and Vaticanus B is that the tip of the ear is cut off (Figs. 108-115), at which the edge of the wound is lobed and usually painted yellow, the color of dead flesh. And the ear painted white or red with the yellow lobed edge of the wound then by itself also stands for *itzcuintli*, "dog" (Figs. 107, 116).

As a mythical beast the dog was known to the Mexicans as Xolotl. As such it was the symbol or the regent of the seventeenth day sign, *olin*, "motion," which illustrates the ball game and the movement of the great heavenly bodies, their rising and setting, their victory and death. And correspondingly, this sky demon is also the regent of the sixteenth Tonalamatl section, and he is represented here sometimes with the sign *naui olin*, that of the sun, and again with the water girdling the world and the sun sinking into the earth (or rising from it).

In the Codex Vaticanus B this demon is represented simply as a dog (Fig. 117), white with large black spots, but with especially bristly coat and with the hook marking that occurs on the pictures of cotton, on the soil, and on the gray of the sky, but also on the leg feathers of the vulture, and which Preuss explains as reduced butterfly /476/ figures and symbols of sin. In other places the dog is shown as a demon with eagle claws and a fantastic animal head, clearly distinguished, however, as that of a dog by an ear with tip cut off and lobed, the edge of the wound yellow (Figs. 118-120).

This demon is regularly equipped with the ornaments and attributes of Quetzalcoatl. /477/ That in this demon the idea of fire falling from the sky, lightning, is in fact embodied is evident from the role in which it appears on the pages of the Codex Borgia, which I have interpreted as Venus' descent into hell. It appears there on both pages, devoted to the dominion of water, hurling the fire serpent, and falling from above (Figs. 119-120).

By the Maya peoples the dog is also regarded chiefly as the spotted animal. For the Maya day sign *oc*, which corresponds to the Mexican *itzcuintli*, "dog," abbreviates the image of the dog in such a way that only the lower margin of the dog's ear and two black spots on its edge are drawn (Fig. 121).

In the Codex Dresden the dog is the eleventh in the series of 20 divinities (Fig. 122). In this sacred series no /479/ special character or sphere of operation is expressed. I am unable to determine with certainty the object the animal holds in its hand. It looks almost like an aroid flower.

In the remainder of the manuscript the dog appears in three wholly different roles. Once as a creature in heat,

the sexually excited animal, in copulation with a vulture (Fig. 123) which, of course, /480/ is the form or disguise of a goddess, and at -another place (Fig. 124) in copulation with a deity distinguished as a sky goddess by the element of the starry sky, the glyph of which is placed before her head.

In a later part of the manuscript the dog is represented as the captive (or as the weapon) of the rain god Chac (Figs. 125, 126), and still further on (Figs. 127, 128), as the lightning animal, Chac's companion. The glyph of the dog has as main element the abbreviation of a vertebral column. See the first glyph in Figs. 122, 127, the first of the second row in Figs. 123, 124, the second of the first row in /481/ Fig. 128.

In the first place (Fig. 122), and in one of the later examples (Fig. 127), the dog is apparently white; elsewhere, as in the Mexican manuscripts, it is white with large black spots. The tail is quite short, and in Fig. 122 is bushy. A characteristic peculiarity is that in all these places, as in Figs. 108-116 and 118-120, taken from the Mexican manuscripts, the tip of the ear is cut off. In Fig. 123 the dog is represented with erect penis. In an important variation (Fig. 128) the animal, falling from the sky with torch in hand, carries on its forehead the *kan* sign, crowned by the head ornament of the maize god. Here, therefore, the dog is conceived as the bringer of the maize fruit, or as the maize god descending from the sky.

Before I give further details on this point, I wish to mention that in the Dresden manuscript there is a second lightning animal, or animal of celestial fire, which is not spotted but is pure white, has a rather pointed snout, uncropped ears, and a long tail, /482/ and is marked with the sign *akbal*, "night" (= "starry sky"! ), as a celestial being (Fig. 130). This demon also occurs in different places in the Codex Tro (Figs. 131-133). As his glyph there appears (Fig. 130) a dog's head fitted into the calculi outline, which also has the *akbal* sign over the eye.

In Figs. 131, 132, this glyph seems to be replaced by an animal's head that looks almost like a reptile head. In Fig. 131 this animal is assigned by its glyph to the fifth cardinal point, i.e. to the celestial height. Owing to its deviating character I have always classified this as a special species, but Stempell is probably right when he classes it as a "dog" species. In fact we see that, as in the Mexican manuscripts, the dog with cropped ears and the one with uncropped ears are interchangeable. And it is also similar in the Codex Tro.

The idea of celestial fire, or of fire coming down from above, however, seems to be connected with the dog. Thus the glyph of this lightning beast goes hand in hand with another glyph-or alternates with it-that bears the





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Figs. 135-136. The copulating pair: Fig. 135, Dresden 21b; Fig. 136, Tro 23\*-21\*d.

Fig. 137, Carls 32b.

Fig. 138. The dog of the height above, bringer of the maize fruit. Tro 33, 32c.



Fig. 139. The dog of the north. Tro 25\*c.

Fig. 140. The dog, animal of the north. Tro 27\*b.

Fig. 141. The dog, the maize bringer. a, in the *kan* years of the east. Tro 22b, b, in the *muluc* years of the north. Tro 21b.

Fig. 142. The fettered dog, oblation of the north. Cortés 12b.

Fig. 143a,b. The dog in the *ix* years of the west. Tro 20b.

Fig. 144. The dog, maize bringer in the *muluc* years of the

north. Tro 21b.

Fig. 145. The dog, companion of the rain god Chac and the maize gods. Tro 28c.

Fig. 146. Discovery of the maize fruit? Fejérváry Mayer 34.

Figs. 147-148. Animals that know the maize fruit. Tro 33d, 32d.

distinct marks of a dog head, the glyph *De* (see Fig. 134, glyphs A6, 7 and Fig. 134\*, the glyph of boring). Nevertheless I do not consider it out of the question that a contrast exists between this second lightning animal and the /483/ first, the dog, in the sense that this second lightning creature could represent a wild species of dog, perhaps the coyote or so-called fox.

In the Madrid manuscript (Codices Tro and Cortés) we find the dog in some pictures (Figs. 136, second figure, and 139-141) with hairy coat, bushy tail, and cropped ears, and with large black spots on a white coat, that is, with the marks corresponding exactly to those of the dog pictures in the Dresden manuscript and the larger part of the Mexican picture writings. On the other hand, we find dogs that indeed have a white and black spotted coat, but uncropped ears (Figs. 142, 143a); also, those with an entirely white coat and uncropped ears (Figs. 143b, 144, 145)-which are therefore similar to the second class of lightning animals, except that they have no *akbal* sign above the eye-but which, on account of the bushy tail or on account of the role they play, must also be classed with dogs.

Finally, those animals are also dogs that, in shape of ears, kind of tail, and shape of spots suggest the jaguar (p. 246 below, Figs. 153, 155), but owing to elongated head and for other reasons cannot very well be thought of as jaguars. Because one of the two animals in question here (Fig. 153) is represented as a water spitter, Stempell has assumed this animal to be a water creature, and called it an opossum. But water spitting means only that the animal was supposed to be a bringer of rain. With the same logic the wild boar, in Fig. 152 opposite the animal in Fig. 153, should be explained as a water animal. I believe, from reasons I give below, that these animals must also be classed in the wider sense as dogs.

The role of the dog in the Madrid manuscript corresponds throughout to what we saw played in the Dresden manuscript. /484/ The first animals that I called dogs there were Figs. 123, 124, where we saw the dog in copulation with a female power. One of these instances from the Dresden, the series in which the dog is in copulation with the celestial goddess-I give these rows again here in Fig. 135-has its exact parallel in Fig. 136 from the Codex Tro. But in the Dresden only the second of the four pairs is drawn in full figure-a proof that this pair is intended to be the main group of the series-while the other three pairs, which are drawn in full in the Codex Tro, are named in the Dresden only in the group of glyphs.

The animal with the *akbal* sign over its eye also occurred in the Codex Tro (see Fig. 131) with torches in its hands. /485/ Two other cases of torch bearers I shall

discuss later. For the rest, the nature of the dog as fire demon is expressed in the Madrid manuscript in the fact that it is called the demon of the north, e.g. in the picture of Codex Tro 25\*c (see p. 169, Fig. 29, second figure). The north, the polar region, is the realm of the circling motion; the drilling occurs there, fire was drilled there.

According to the idea of the ancient Mexicans Mixcoatl, the star god, the god of the north, is the god who first drilled fire. Also, in other places of the Madrid the dog is assigned to the north. The dog, seated on Codex Cortés 32b (Fig. 137) with another long-tailed creature under a shelter is also, I think, to be considered an animal of fire and the fire god.

Finally, in the Dresden manuscript we saw (Fig. 128) the dog falling from the sky with the *kan* sign and the head dress of the god with the *kan* sign, the maize god. This is also the chief role in which the dog appears in the Madrid. We see it first on the four pages, Codex Tro 23-26, on which the pre-New Year ceremonies are represented for the *cauac*, *kan*, *muluc*, and *ix* years, and the fate of these years.

The *cauac* years in which the black Bacab rules are evil. Here (Codex Tro 23b) the maize god is sitting opposite the death god and no maize bringer appears. The following *kan* years in which the yellow Bacab rules are good. Here (Codex Tro 22b) on the right side is the maize god, and opposite him on a pot with the *kan* sign, i.e. with maize, sits the dog, ornamented with the head dress of the Maize god, and on a back frame carrying *kan* and *imix*, i.e. provisions (Fig. 141a). In these years, therefore, there is 111aize. Indeed, in the Relación of Bishop Landa /486/ the *kan* years are pronounced good.

The following *muluc* years, in which the red Bacab has power, are likewise good; Landa says they were the best, because their Bacab was the best and greatest of all. Hence we see here (Codex Tro 21b), the god of the year sitting on the right side, to whom the raven brings the *kan* sign, i.e. 111aize. Above him again is a dog-the true dog with the cropped ears-with the head ornament of the maize god and carrying *kan* and *imix* on his back (Fig. 141b). And opposite the god is another dog-with uncropped ears-who holds out an ornamented *kan*, i.e. maize again (Fig. 144).

Finally, the *ix* years, in which the white Bacab rules, are evil, and drought and bad growth were feared. Here (Codex Tro 2Gb) the god of the year is sitting opposite a dead maize god. Dogs are also drawn (Fig. 143a, b), but they bring no maize.

In certain ceremonies the Mexicans offered a dried frog, painted blue and clad in a woman's petticoat, having bound on its back miniature tortillas and other provi-





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Figs. 149-150. Discovery of maize fruit through animals. *Tro* 30, 29b, 30, 29c.

Fig. 151. Maize fruit and animals. *Tro* 31, 30d.

Fig. 152. The water goddess and the rain gods of the five cardinal points. *Tro* 27b.



Fig. 153. The animal of the west. Tro 27b.

Fig. 154. The finder of the maize. Tro 29b.

Figs. 155-157. The finder of the maize. Tro 29c, 32d, 30d.

Fig. 158. The dog as hunter. Tro 14a.

Fig. 159. The coyote. Glyph of Coyoacan (in Soconusco). Mendoza 49, 2.

Fig. 160a,b. The coyote, symbol of brave warriors. Vaticanus B 31, 90.

Fig. 161. Mexican warrior in the coyote disguise *tozcoyotl*, "yellow coyote." Sahagún ms.

Fig. 162. Coyote equipment. Libro de Tributos.

sions. Among the Mexicans the *frog*, therefore, was the animal of the rainy season and the rain god, the bringer of maize. In the five days before the beginning of the *muluc* years, the Yucatecs offered tortillas (maize pancakes), maize broth, and earthenware dogs bearing maize cakes on their backs. Figure 141a,b, therefore, not only represents, theoretically, the dog as maize bringer, but is the reproduction of certain cult rites that have their origin in the idea that the dog (the animal of the rain god) is the maize bringer.

The views concerning the meaning of the four years on pages 23-20 of the Codex Tro, and which, as we see, correspond throughout to Landa's statement, also occur in another series (Fig. 138). Here too in the *cauac* and *ix* signs (the first and last) the maize god is dead, and in only the other two signs, *kan* and *muluc* (second and third), is he alive. And also in this series a dog plays a curious role.

Here the dog's ear is replaced by the sign of the monkey (*chuen*) and he is represented with burning tail and with torches in his hands. I should like to consider the *chuen* eye-corresponding to what I have stated of Fig. 35 on p. 171-as a kind of glyphic designation of the descent *from* above. Here this dog would correspond to the dog of the Dresden manuscript, Fig. 128. The dog in Fig. 128 is designated as maize god by its head dress. I cannot refrain from assuming the same thing also for the four dogs of Fig. 138.

Mexican legends relate that after the gods had brought fire, and mankind had been created from the fragments of bone brought from the underworld, the god Quetzalcoatl went forth to seek maize, which he found in the west, in Tamoanchan, the land of birth, in Tonacatepetl, the mountain /487/ of provisions, and that the ants showed the god the way thither. On the other hand, in the myths of the Maya tribes of Guatemala-which in this respect are thought to be the more correct-it is related that maize had to be found first, before it was possible to create man properly and permanently.

But the *maize-kana hal, zaki hal*, "the yellow and the white ears"-was found in Pan Paxil, in the "Land of the scattering," in Pan Cayala (= Mexican Cauallan? "Land of the cutting"?), i.e. in the primal home. And only the coyote /488/ (*Utiu*) and the raven (*hoh* or *koch*), or according to other legends, the fox (*ya e*), the coyote (*utiu*), the parrot (*qu 'el*), and the raven (*hoh*) knew where it could be found, but they were induced by some means to show the gods of creation the maize, or the way to the land of maize, after which the human body could be made from this material, and a generation of men who offered promise of a lasting existence could be created.

Like many other Quiché myths, this too will have its analogy in Mexican mythology. I would like to see a reference to such myths in Fig. 146, from the Codex Fejérváry Mayer, page 34. But also among the Yucatecs something similar must have been narrated. I see a reference to such tales in the series in Figs. 147-151, except that this is not a simple representation of the myth. In these manuscripts all is considered from the viewpoint of augural art, all is placed under the control of the four or five cardinal points signifying good or ill fortune.

The series, Figs. 147-151, joins on directly to the series in Fig. 138, a representation that, as I have shown, really means nothing more than "maize." In Figs. 147, 148, there are four pictures on each page, assigned to the yellow, red (sun-colored), white, and black cardinal points, i.e. east, north, west, and south. The first and fourth pictures contain a god; in Fig. 147 this is Chac, the rain god, in Fig. 148, the maize god. In the second picture, both in Fig. 147 and 148, there is a kind of snake or worm near the mouth of the maize god, as if speaking to him.

In the third picture, under the rule of the white cardinal point, west, there is in Fig. 147 a black bird, and in Fig. 148, a dog. I would like to surmise that the black bird is meant for a raven, and that the dog stands for the coyote (*utiu*) of the Quiché myths, in other words, that here are intended to be represented the two animals who know where the maize is found. /490/ But the artist of this picture knew that the third cardinal point, the white (west) region of the world (the twilight), corresponding to the *ix* years, meant bad maize years.

So in Fig. 147 he drew the maize god, who holds a black bird, the raven, with closed eye, that is, the god is dead. The idea of Figs. 147, 148, is then continued in Fig. 149, which also has at the beginning a column of day signs with the number three. Here, however, the cardinal points are arranged west, south, east, north. But at the beginning and end of the series there stands again the picture of a god, the rain god Chac, who causes drops to fall on the *kan* sign, i.e. on the maize.

The second picture shows the rain god with the black bird, the raven; the third, the rain god with the dog. The two animals with their bills or teeth peck at the *kan* sign. This can mean that they eat maize, but can also mean that they bring maize.

Figures ISO, 151, convey the same idea, but introduced under the five cardinal points. In Fig. ISO these are not clearly named in the glyphs, but they are in Fig. 151, where the first, second, and third pictures are given as standing under the yellow, black, and white cardinal points, i.e. assigned to the east, south, and west. The fourth, north, seems then to be excluded. The fourth and



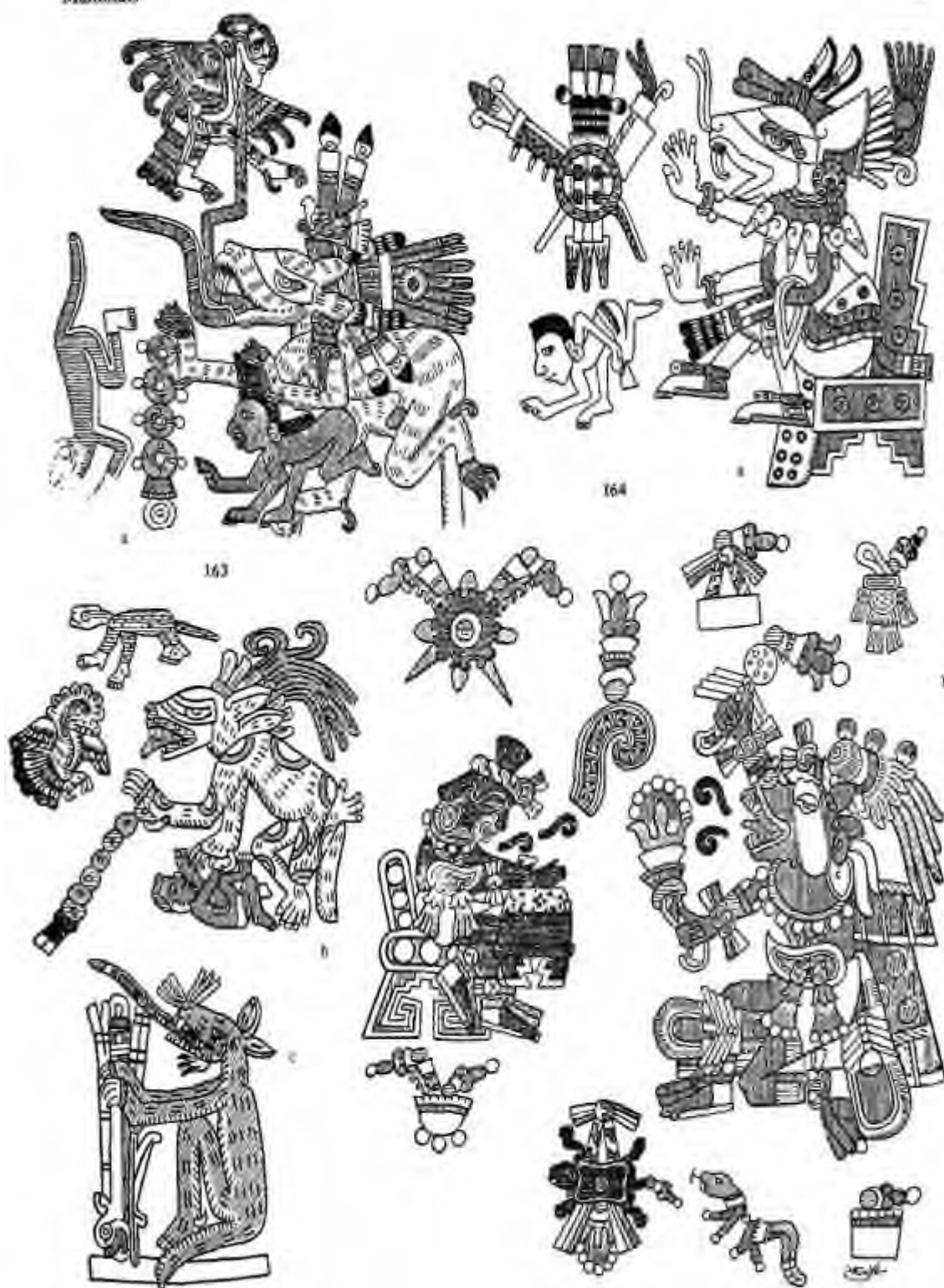


Fig. 163 Ueucoyotl, the old coyote, the dance god, lord of the Fourth day sing cuetzpalin, "Lizard." a. Borgia 10.b. Vaticanus B 29.c. Vaticanus B 88.

Fig. 164 Ueucoyotl, the old coyote, the dance dog, lord of the fourth Tonalamatl section. a. Borgia 64.b Borbonicus 4.



Fig. 165. The supreme sky god, sixth of the 6 sky travelers. a. Borgia 57. b. Fejérváry Mayer 32.

Fig. 166. The two dance gods, lords of the third hour of the night and the north. Borgia 59.

Fig. 167. The two dance gods in opossum and coyote (?) masks,

lords of midnight and the lower region. Borgia 59.

Fig. 168. The coyote demon. Nuttall 78.

Fig. 169. The coyote? a. beating a drum and singing. Tro 20a.

b. as lightning animal (bringer of maize?). Tro 21b.

Fig. 170. The animal of Tumoanchan. Borgia 11.

fifth pictures appear to be intended to represent the lower and upper regions.

In Fig. 150 the first and last picture is again a god, here, the maize god. The other three pictures name the animals who know about maize, the raven, the dog, the snake (or worm). With the raven, the black bird, the maize god is again represented, as in Fig. 147, /491/ with shut eye, i.e. dead. In Fig. 151 only the first picture shows the god, the rain god Chac, who pours water *from* a jug onto the maize. The second and third pictures show us two of the animals who know about the maize, the raven and the snake (worm).

In the fourth picture, corresponding to the lower region, we see two death gods. The fifth picture contains the other animal who knows about the maize, the dog, who is distinguished here as maize god by the *kan* sign replacing its eye, and who is assigned to the upper region, and by the glyphs is identified with the old god of the sky, whose name is Itzamná, thus again becoming the exact analogy of Fig. 128. In the third, the white cardinal point, the maize god is again drawn with closed eye, i.e. dead. The dog as the bringer of maize, which we have learned to know in this role in Figs. 141 a, b, 144, also occurs in these series.

But now I have to answer the singular zoological question that Stempell has prapounded. In Figs. 154-157 the dog-like pictures of Figs. 149, 150, 148, 151, are grouped together, and with them in Fig. 153 the animal that in Fig. 152 is to the right of the water goddess. Stempell has very correctly recognized that this creature, Fig. 153, belongs with the dog-like animal of Fig. 155, and that the two characters in themselves bear what appears to separate them from the others, the unquestionable likenesses of dogs.

For reasons that are not satisfactory to me-as I stated above-Stempell has pronounced Fig. 153, and accordingly also Fig. 155, an opossum .I cannot assent to this. I think the animal in Fig. 155 is not to be separated from those of Figs. 154, 156, 157; they occur in allied series /492/ in a similar role, and from the style and shape of the spots the latter are to be distinguished from true dogs. So then Figs. 153, 155, in spite of the deviations these animals show, must also pass as dogs, at least as dogs in the wider sense of the term (including the wild dog).

Now, Stempell correctly observes that in Fig. 152 the dog would then occur twice, in one case on the right hand and in the other on the right foot of the water goddess who is pictured there. The objection is a legitimate one. Yet we should not forget that, in the first place, as I said above, the first picture is that of the domesticated dog, and the other of a wild dog species, and

further, that the dog, as we have seen, seems a mythological animal in very different roles.

In Fig. 152 the water goddess is represented, and around her are five demons, evidently intended to illustrate the dispensers of water corresponding to the five cardinal points. The beginning, at all events, is to be made with the figure of the rain god Chac, who sits at the right below, on the left foot of the goddess. It must designate the east. Then follows, as the animal of the north, left, bottom, on the right foot of the goddess, the dog, i.e. the domesticated dog-typically represented with bushy tail, large black spots on its coat, the rest of which is white, and with cropped ears.

As the third demon, corresponding to the west, there follows, left, top, on the right hand of the goddess, the doubtful animal, Fig. 153, and as demon of the south, the wild boar, at the right, top, on the left hand of the goddess. Finally, in the middle, between the dog below and the doubtful animal, Fig. 153, is the stag-as such the demon is to be pronounced, although he is not pictured /493/ with hoofs, but with hands and feet-which corresponds to the middle or fifth direction.

The second of these figures, the first dog, Fig. 152, left, bottom, is therefore the demon of the north, i.e. the dog as the bringer of fire; the third figure, the animal with varying characteristics, Fig. 152, left, top, is the animal of the west, the dog as bringer of maize. And here, in contrast to the domesticated dog, we may think of a wild species, the coyote or fox, so called.

In the Quiché myths, where the different animals are enumerated in groups and correspond to the different cardinal points, as a matter of fact the fox (*yak*) and the coyote (*utiu*) are assigned to the west. Thus, at one place in the Popol Vuh, the animals are grouped as follows:

*Coh balam – puma and (east)*

*Queh umul – stag and coyote (north)*

*Yak utiu – fox and coyote (west)*

*Ak tziz – wild boar and coati (south)*

The presence of these two different forms of the dog species in one and the same picture may be explained by the different roles the dog plays as a mythological animal-or the special roles that the different dog species have filled.

I mention also that on Codex Tro 14a (Fig. 158), where Stempell wished to recognize a bear, here too the subject is dogs that are represented as hunters in the five cardinal points (whose signs are given above in the groups of glyphs). The second figure from the cropped ears is doubtless a domesticated dog. The first figure, whose head, it is true, shows peculiar bristles but which otherwise is equipped exactly like the second figure, I





Fig. 171. The animal of the god Four dog. Nuttall 26.

Fig. 172. The animal of the god Twelve rain. Nuttall 64.

Fig. 173. The god Five dog. Nuttall 27.

Fig. 174. Glyph of Cuetzlachiuitzin. Humboldt ms. II.

Fig. 175. The raccoon? as symbol of warrior doomed to be sacrificed. Borgia 13.

Fig. 176. Animal on the palm, the tree of the south. Vaticanus II 18.

Fig. 177a,b. The raccoon? Nuttall 54, 55.

Fig. 178. Glyph of Epatlan. Mendoza 44, 20.

Figs. 179-181. Mixed forms, a raccoon(?) with rabbit head. Nuttall 22, 64, 45.

think, is also nothing other than a dog with cropped ears, or perhaps a wild dog.

In the appurtenant glyph groups a glyph is given here in regular repetition that on Codex /494/ Tro 19c (see below, Fig. 388) stand s for a stone knife in which the black god and the maize god, drawn in full figure, drill fire. This glyph seems to say that here the animal with the sharp tooth is intended to be represented.

Stempell believes that the dog in Dresden manuscript 7a (Fig. 122) should also possibly be classed with bears. I have shown that the cropped ears and general appearance of the animal, as well as the role it plays in different parts of the manuscript, leave not the slightest doubt that it is to be identified as a dog. It is true the grizzly bear that Stempell introduces here was alien to the regions inhabited by the ancient Mexican tribes. It occurs today only in the provinces bordering the United States (in the Sierra Madre of Chihuahua and Sonora). The old texts and the reports from ancient time contain no reference to an acquaintance with this animal, rightly dreaded on account of its strength and wildness.

### 5. The Coyote and the Fox

The best known of the wild species of dog in Mexico is the howling wolf, *Canis latrans* Linnés, which the Mexicans called *Coyotl*. An allied species is the *tlalcoyotl*, "earth coyote," which the Spaniards called "zorra," "fox." Among the Zapotecs the coyote is *peeza*, *peeza-yache*, "yellow coyote," and the fox, *paate*.

The Maya tribes have different names for this animal. Among the Quiché and Cakchiquel the coyote is *utiu*, the fox, *yac*; in the Pokom group and among the Mam the coyote is *ohb*, or *xohb*, and among the tribes of Chiapas, *okil*, "howler." From the Chol Sapper cites the name *k'am-boley*, i.e. literally "yellow tiger." Among the Yucatecs, according to Stoll, the coyote is said to have been called *ch'umac*. But there is no such word in the Perez dictionary.

The word *coyotl* occurs in the names of different Mexican cities, which correspondingly are illustrated glyphically by its picture. Here (see Fig. 159) the animal is drawn with bristly coat. A round hole in the region of the stomach is said to mark it as the "ever hungry."

The coyote to the old Mexicans was, on one hand, the rapacious animal, the beast of prey allied to the jaguar, and on the other hand, the animal of the strongly developed sexual instinct and, finally, the god of dance and song, a character that probably was derived as much from its sensual inclinations as its musical accomplishments. As the beast of prey the coyote, like the eagle and jaguar, is the symbol and prototype of warriors. Certain prominent warriors appear in coyote disguise in

the dances and in battle (Figs. 161, 162). In the Tonalamatl the warriors doomed to be sacrificed are represented opposite the pulque dog, sometimes as eagle and jaguar, and again as coyote (Fig. 160).

/495/ As the rutting, sexually excited animal, the coyote has been selected as the embodiment and regent of the fourth day sign *cuetzpalin*, "lizard"-a sign that, as I have shown in my commentaries on the picture writings, to the Mexicans illustrated sexual instinct (Fig. 163 a-c)-and accordingly it has also become the regent of the fourth Tonalamatl section (Fig. 164a,b). In this connection this animal is represented here sometimes as the sinner /496/ and again as the dance god decorated with the rattling dance ornament (*oyoualli*) of snail shells, or cut from snail shells. In one hand he holds a flower, and in the other swings a dance rattle (Fig. 164b). The illustrations show an animal with abundant hair, yellowish brown, or even a decided red (Fig. 164b).

At one place it is also drawn with /497/ large round spots that resemble the dog spots in shape, but are not black like those of the dog but light (white and yellow) (Fig. 163b). The head is long, like that of a dog, and a yellow field enclosing the eye is characteristic. As a matter of fact the coyote's eyes are surrounded by a pale yellow space, the hairs ending in white points, and thus contrast with the rest of the face and neck, where the hair ends in black points. This light-yellow field surrounding the eyes has clearly been transferred *from* the coyote, the animal of pleasure, to the god of pleasure, Macuilxochitl.

By this yellow field the animal demon, Fig. 168, who on Codex Nuttall page 76 stand s opposite the chief personage of this section, the god Chicuei macatl, "Eight stag," is clearly distinguished as a coyote. On the body and limbs black hands are painted, markings that, perhaps like the white hand at the mouth of the figures of the Codex Borgia group, states that this character belongs in the series of gods whose names are formed with the number "five," i.e. in the Macuil xochitl series, the series of the gods of pleasure,

I must, therefore, now explain as coyote the old god, Fig. 165, the sixth of the 6 sky travelers, and apparently signifies the highest heaven, or the Milky Way, but whom, on account of the long head and ears (Fig. 165b), I believed in my commentaries should be explained as a stag.

/498/ Whether the animal that in Figs. 166 and 167 forms the hair style or the head dress of the dancing goddess (Xochiquetzal) is to be introduced here-as the grouping with the opossum in Fig. 167 could make possible-is still doubtful in my mind. Here the head is clearly like that of a stag. Above the eye there is a black

stripe. The skin or a strip below the eye is marked with round spots, after the style of jaguar spots.

It should be assumed *a priori* that the coyote was represented in the Maya manuscripts, and so much the more since, as I stated above, it plays a role in the myths. In addition to what I said about his part in discovering the maize, the coyote (*utiu*) in the Quiché myths stands exactly for the male, begetting principle; the opossum (*vuch*), for the female principle, the child-bearing woman. /500/ Hunahpu vuch and Hun ahpu utiu, "One flower opossum" and "One flower coyote," are cognomens of the creating deity. It would, therefore, be only natural to find the coyote also in the Maya manuscripts.

I also think it probable that the dog characters of the Madrid manuscript, which differ from the ordinary type, and which I have discussed (pp. 179, 185), represent the wild dog, the coyote or the fox. It is true the distinctive mark that is the characteristic peculiarity of the coyote in the Mexican manuscripts and also in the Codex Nuttall -the yellow field surrounding the eye-is nowhere to be seen in the Codex Tro figures.

If the animal species is to be inferred from its function-and it should be assumed that the coyote among the Maya tribes was also the musician, the god of feasting and dancing-then I should explain as a coyote the doglike animal (Fig. 169a), which on Codex Tro 20a (the page that pictures the pre-New Year ceremonies for *ix* years) beats the gourd drum and sings. This animal, however, is neither especially hairy nor bristly, nor has it the light spot at the eye that distinguishes the coyote in the Mexican manuscripts, but on the contrary there is a dark strip at the eye.

On the other hand, it agrees with a coyote that the animal is drawn with protruding or exposed ribs, i.e. bone dry, emaciated. It could denote the ever hungry beast." But, on the other hand, we must recall in this connection that the glyph of the dog contains as its chief element the abbreviation /501/ of a skeleton (see above, Figs. 122, 127, first glyph, Fig. 128, second glyph, Figs. 123-124, third glyph, or the first of the second row).

I do not venture, therefore, to decide the question. But if Fig. 169a is intended for a coyote, then Fig. 169b must also be a coyote, an animal that is pictured as lightning beast, with burning tail, and at the place where the *muluc* years abounding in maize are introduced (Codex Tro 21b) it is intended to illustrate this maize abundance.

Perhaps we should extend the circle of dog-like animals a little further. In the manuscripts several longtailed animals occur that have a white coat ringed with black, and a corresponding tail, and for the rest have neither a black spot above the eye, like dogs, nor a yel-

low space across the eye like coyotes, e.g. the animal in Fig. 170, which is given in the Codex Borgia with the picture of the Obsidian butterfly, the Chichimec goddess, the mistress of Tamoanchan, and the animal, Fig. 171, from Codex Nuttall 26. The raccoon, the coati, and the civet cat (*Bassaris astuta*) have a ringed tail. We might assume that one of the last-named animals is represented here.

But the animal in Fig. 171, determinative of a person, as it were, /502/ is a god who reveals his identity with this animal by the fact that he wears its head as a head dress. But this person is named with the date "four dog." And on the following page 27 of the Codex Nuttall the same person recurs, but somewhat differently attired, wearing the head of the animal, Fig. 171, as head dress. Here again too stands the date "four dog," as the name with the figure. Under this figure there finally follows a second that also wears the animal's head, Fig. 171, as head dress (Fig. 173) in which also-indeed not the whole animal, Fig. 171, but the tail-is given as determinative, and this person is named with the date "five dog." These instances make it very easy to suppose that this differently drawn animal is also intended to represent the dog alone, for as a matter of fact we found this skin marking in dog pictures of the Codex Nuttall, though not quite as pronounced (see pp. 177-78, Figs. 104, 107).

The same is also true, however, for the animal, Fig. 172, also somewhat odd looking, whose resemblance with Fig. 171 cannot be denied, but which is painted entirely black. In spite of this difference in color, we shall have to place it in the same category as Fig. 171. For the person with whom it is placed as a determinative, as it were, again wears the white head of the animal as a head dress, Fig. 171, with cross striping, like the figure previously discussed.

## 6. The Cuetylachtli

With the name *cuetylachtli* the ancient Mexicans designated an animal whose name in Molina's vocabulary is translated "lobo," "wolf," but which Sahagún compares with the bear and describes as follows: /503/

It has a long hairy coat, a bushy tail like a fox tail, but shaggy when old; it has small and narrow ears, a round and broad face, almost like the face of a man, and a thick snout.

The *cuerylachtli* is also said to have a poisonous breath, which changes into rainbow hues, and to be a beast of prey that waylays other animals.<sup>9</sup> The animal-alone or with the falcon-is named, like the eagle and jaguar, as one of the strong and brave animals, as a warrior, a

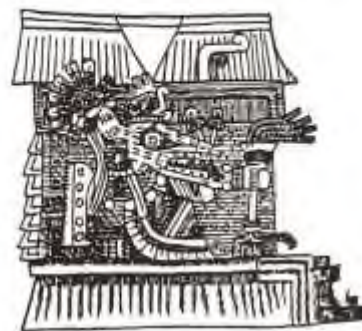




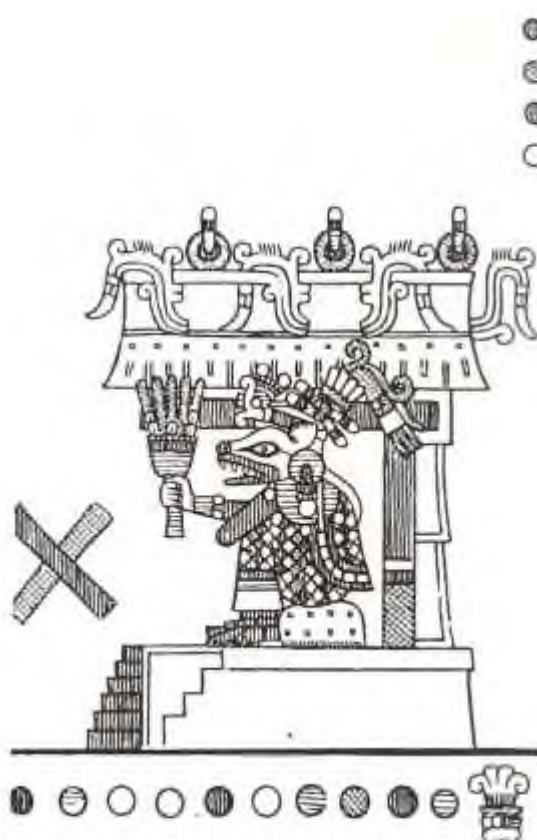
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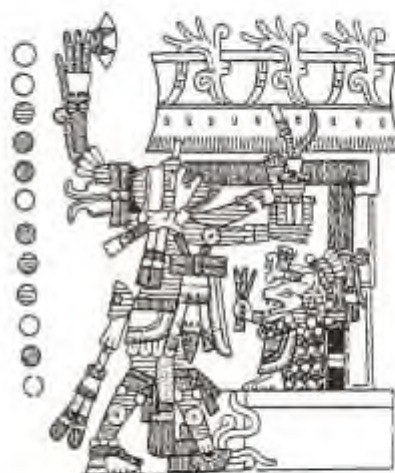
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Fig. 182. Mixed forms. a. rabbit and jaguar, Nuttall 52. b. dog and jaguar, Nuttall 59.

Fig. 183. The opossum, Nuttall 71.

Fig. 184. The opossum, lord of the lower region, Vaticanus B 9.

Fig. 185. The opossum, lord of the lower region, Fejérváry Mayer 30.

Fig. 186. The opossum, in the house of the north, Fejérváry Mayer 33.

Fig. 187. The opossum, Fejérváry Mayer 38.



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Fig. 188. The opossum and the earth goddess, Nuttall 3.

Fig. 189. The opossum, bringing in the maize god, regent of the *akbal* years. Dresden 27.

Fig. 190. Painted pottery vessel, Cholula. Museo Nacional de México.

Fig. 191. Pottery vessels with incised pattern, Michuacan. Guillermo de Heredia Collection, México.

Fig. 192. Painted pottery plate, Cholula. Seier Collection, Royal Museum of Ethnology, Berlin.



symbol of the sun, and as such, with the eagle and jaguar, was called from stone in Mexico City at the place called *quauhquiauac*, "eagle door." <sup>10</sup>

The animal, however, plays a special role at the feast of Xipe Totec, "Our lord, the flayed one," the spring god, the god of planting, of vegetation. At this feast the *cuetlachueue*, "old *cuetlachtli*," who was the "uncle" of the warriors doomed to be sacrificed, appeared. He bound them to the round stone, where they had to fight before they were sacrificed, and afterwards sang the death dirge for the victims, and with the rope that had been used in the binding, and the head of the victim, took part in the dance of the priests.

I know of no other pictures of this animal except the glyph of Cuetlachiuitzin (Fig. 174), given in the second manuscript of the Alexander von Humboldt Collection, the page designated by Humboldt as "Généalogie des princes d'Azcapotzalco," <sup>11</sup> and there is very little on this page. But Sahagún's description-the round face, the small ears, and the thick, wooly coat, which this writer emphasizes, as well as the tales of the poisonous breath, which suggests a nocturnal creature, and the fact that the animal appears as representative of the rape at Xipe's feast-which, like a prehensile tail, moored the captive to the middle of the stone disk on which he had to fight-leads me to assume that by *cuetlachtli* the kinkajou (*Cercoleptes caudivolvulus* or *C. brachyotus*) is meant. It lives in the Tierra caliente of Mexico, is a nocturnal animal, and is still known in Mexico as the "bear of Michoacan" or "honey bear."

### 7. Other Beasts of Prey

/504/ In a few places in the Codex Borgia an animal of a general dog-like appearance occurs, distinguished by having, across its face, including the eyes, a black field on which white circles are marked, the painting that the Mexicans called *cicitlallo*, "firmament-like," or "nocturnal."

This animal appears once opposite the pulque god (Fig. 175) as symbol of the warrior doomed to be sacrificed (in place of the coyote or eagle and jaguar), and in another instance in a similar manner, adorned with the sacrificial banner, in connection with the black and the red Tezcatlipoca (Codex Borgia 2Ia). Among the Mexican animals the raccoon has a typical black face.

Thus the idea occurred to me that this animal with the firmament-like painted strip on its face might be the raccoon, although, of course, the animal in Fig. 175 is drawn in an entirely conventionalized style that hardly admits of identification. The raccoon in Mexican is *mapachtli*, i.e. which "sets its hand flat on the earth." Thus one of the /505/ characteristic peculiarities of the

animal, its plantigrade mode of travel, is distinctly indicated. In the Mexican descriptions it is also stated that it has hands and feet like a human being.

In Fig. 176, for example, the animal that is sitting in the top of the tree of the south, supposed to be a species of palm, is drawn with hands and feet. Although this does not have a black face, it is perhaps not improbable that it too is intended for a raccoon. Finally, in the Codex Nuttall there are two animals walking on the soles of their feet, but represented as white in color with a black stripe crossing the face (Fig. 177a,b).

Here, I believe, these animals should be considered, without doubt, as raccoons, for the white color of the coat could be due to the fact that the artist forgot to add the color, or that the animal is supposed to have a spectral significance. The first supposition, I think, is excluded, for the persons with whom these animals are given in the Nuttall are also left white. But something spectral indeed clings to the raccoon, for it is a nocturnal animal. The Mexicans seem to have connected it with the earth goddess; they also called it *ciua-tlamacazqui*, "priestess," and *ilamaton*, "old female."

/506/ The glyph of Epatlan (Fig. 178), "Place of the skunk" (*epatl*), shows this animal black, without the two lengthwise white stripes that are so characteristic.

Curious mixed forms occur in the Codex Nuttall. For example, in Figs. 179-181, we find raccoons with rabbit heads, in Fig. 182a an animal with lower half of a jaguar's body, upper part, a rabbit, and finally, in Fig. 182b, a jaguar with a dog's head. I shall later mention other, still more curious mixed forms.

### 8. The Opossum

In the Codex Nuttall, from which Figs. 171-173, 177, 179-182, are taken, Fig. 183 also occurs, which in the form of the glyph of a mountain or a city shows an animal with hairy coat, white ground color, but ringed with black, with naked hands and feet and naked involute tail. It has a longish, pointed head with small pointed teeth, and as a prominent characteristic a black marking surrounding the eye and forming a point in front. This creature has long been familiar to me.

In Codices Vaticanus B and Fejérváry Mayer it occurs in a series of six divinities, apparently as lord of the /507/ lower region (Figs. 184, 185). In the Fejérváry Mayer it characterizes the house of the north, to which Tezcatlipoca with bound eyes brings offerings (Fig. 186). In the Nuttall it is also in the house with the beheaded goddess, the earth (and moon) goddess (Fig. 188). Finally, at the end of the Fejérváry Mayer it is represented in six pictures fighting (Fig. 187), swallowing a man, even beheaded, and at the beginning of the





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Figs. 193-194. Feet of tripod pottery bowls, Michuacan.  
 Fig. 195. Figures on pottery, Strebel Collection.  
 Fig. 196. Animal figures on pottery, Strebel Collection.  
 Fig. 197. Glyph of King Auitzotl of Mexico, Mendoza 12, Tel-

leriano-Remensis 39.  
 Fig. 198. Glyph of King Auitzotl on the temple pyramid of the  
 pulque gods of Tepoztlan.





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plate VII. Fig. 199. Fragment of stone box with portrait of Auitzotl on inner surface of side walls. British Museum. a. exterior of side wall. b. inside of side wall. c. exterior surface of bottom.

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Fig. 200a,b. Auitzotl on the cover of a stone box and inside of cover with date "seven reed." Uhde Collection, Royal Museum of Ethnology, Berlin.

dark way leading to the underworld, or to the night sky.

It is also not wanting in /508/ the Maya manuscripts.

In the Dresden, pages 25-28, above the regents of the *been-e'tznab-akbal-lamat* years, it is pictured, attired as a dancer, with a belt of hanging rattling shells, rattles bound at ankles, ring of bells in left hand, rattle board and copal pouch in right hand, and bearing on a back frame the regent of the new year (Fig. 189).

This animal clearly played an important part in the imagination of the Mexican-Central American peoples, and in its pictorial representation had developed a conventionalized style, similarly followed even in the art of districts very remote from one another. For I have found excellent representations of this animal not only on specimens of the world-famous ceramics of Cholula (Figs. 190, 192), but also on vessels of Michuacan (Figs. 191, 193, 194). And among the animal forms employed by the old tribes inhabiting central Vera Cruz State to decorate their pottery, this animal, with pointed snout and pointed black face mark, also occurs frequently enough, as is proved by plates XVI and XVII of Strebel's work on animal ornaments on pottery vessels from his collection (Figs. 195, 196).<sup>12</sup>

Impressed by specimens like Fig. 190, I looked through the zoological collection of the Mexican /509/ National Museum to see what native animal corresponds to this type so closely adhered to, and have reached the conclusion that it must be the opossum, the pouched "rat," for only this animal possesses whitish skin, distinctly prehensile tail (Figs. 183, 188, 195, 196), and pointed /511/ black face marking. The opossum, which the Mexicans called *tlauatl* or *tlauatzin*, the Quiché, *uuch*, and the Yucatecs, *och*, had in fact a great significance among the Mexican and Central American tribes.

The fact that the mother carries the still immature young in the pouch, and the numerous progeny which is the rule with these animals, made the opossum the model for women in childbirth, and an important medicine among the Mexicans. Pulverized opossum tail was given to a pregnant woman when the ordinary means to accomplish birth did not suffice.<sup>13</sup> And, in like manner, the parts of this animal possessed great virtue in bringing about menstruation and in general for operations of the bowels, passing of stones from the bladder, and the /512/ like.<sup>14</sup> It was said that a dog that stole and ate an opossum immediately evacuated through its anus its entire intestines, liver, etc.<sup>15</sup>

I have stated above that in the Quiché myth opossum and coyote represent the female and male principle, and accordingly Hun ahpu vuch, Hun ahpu utiu, "One flower opossum," "One flower coyote," is given as the name of the divinity of creation. Figure 167, above, p.

190, from the Codex Borgia could be a representation of these two animals in the dance, i.e. a mimic-dramatic illustration of the creative divinity.

The opossums in the picture writings I have invariably designated in my commentaries /513/ as "the animal with pointed snout." But in December 1907, when I submitted to the Anthropological Society the results of my last Mexican expedition, I also exhibited Figs. 190-194, and explained these and the allied illustrations of the picture writings as representations of the opossum. I was pleased to find that Stempell in his work is likewise inclined to connect the animal in Fig. 189 with the opossum, "in view of the distinctly drawn long feelers, the dark spot near the eye, the pointed head, and the long scaly rat tail."

#### 9. The Auitzotl

At the time of the Conquista the Mexicans under the name *auitzotl* understood a spectral water animal, a kind of sprite, that drew men down into the water and bit off the nails and hair of intoxicated men,<sup>16</sup> and to whom the living offered nail cuttings in the water in order to promote the growth of their nails. One of the Mexican kings bore its name.

Had I nothing further to state concerning this creature I should have no occasion for thinking of it here. But this little animal, in the first place, has a very definite zoological mark, a prehensile tail, as is proved by Figs. 197a,b, is clearly seen in Fig. 198, and, as is also stated in Sahagún's description, finally,<sup>17</sup>

... it has small, pointed ears, /514/ a black, very smooth body, a long tail with a kind of human hand at its tip, and feet and hands like a monkey,

In addition, this little animal bears a name which does not agree at all with the above description-particularly the "very smooth body," for it is called the porcupine, the water porcupine.

Finally, the fact that one of the Mexican kings bore its name points to the fact that, in addition to its spectral and superstitious significance, it must have had a more serious and sacred character. I believe that the representation of this little animal had as its basis the tree porcupine (*Cercolabes Novae Hispaniae* or *Cercolabes caudivolvulus*), also called *uitzlaquati* or *uitzlaquatzin* in Mexican, "spiny porcupine"-but in its mythical significance.

Of porcupines of the Old and New Worlds people believed that they could shoot their quills like arrows, and thus porcupines have become illustrations, primal pictures, or symbols of light bodies emitting rays. The water porcupine, of course, must be the likeness of the



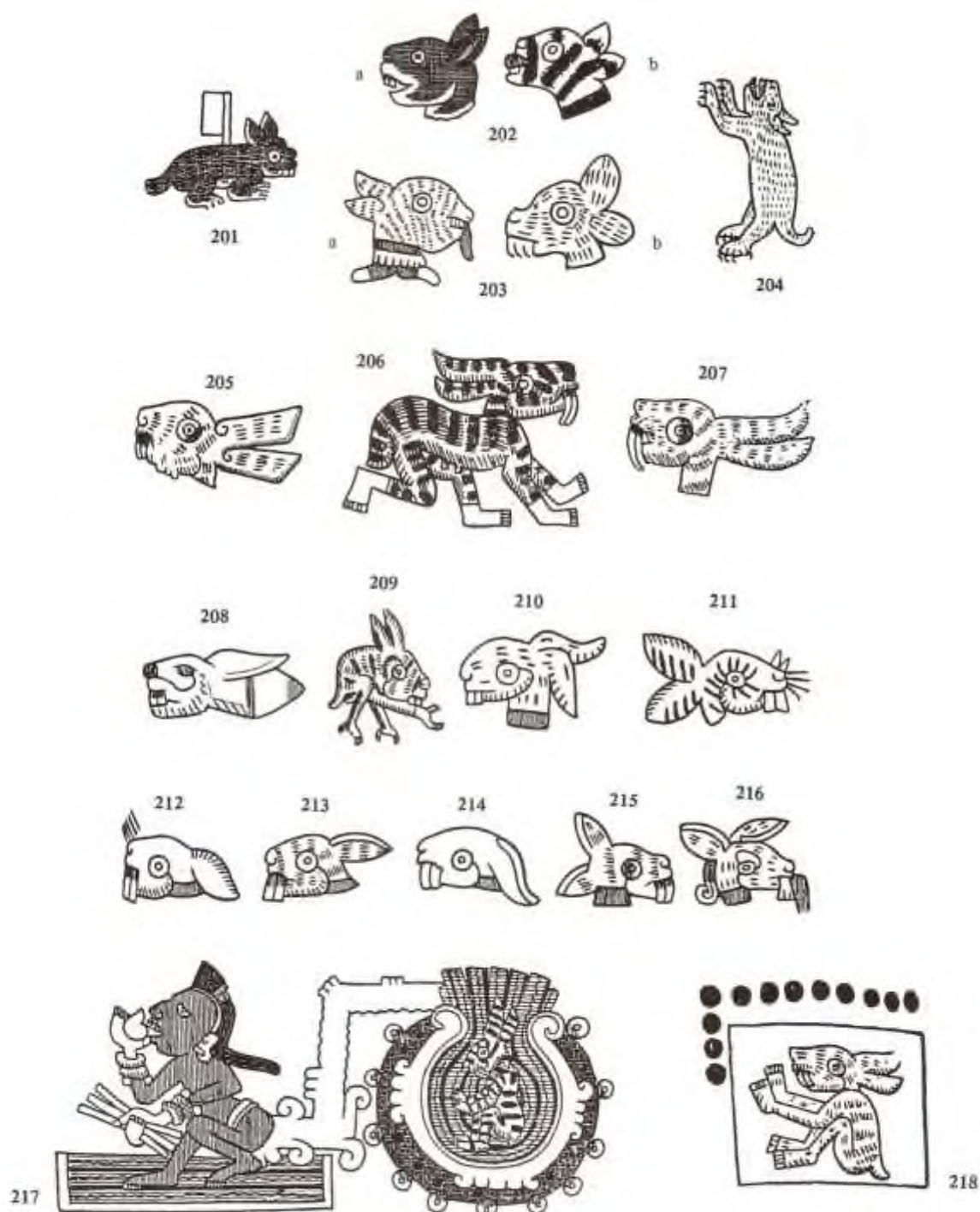


Fig. 201. Glyph of Tochpan, Mendoza.

Figs. 202-216, *tochilli*, the eighth day sign of the Mexicans: Fig. 202a, Magliabecchiano 12. b, Aubin Tonalamatl 7; Fig. 203a, Telleriano-Remensis 16 verso. b, Borbonicus 20; Fig. 204, Magliabecchiano 7 verso; Figs. 205-207, Borgia 3, 20, 12; Figs. 208-

209, Bologna 29, 7; Figs. 210-211, Vaticanus B 98, 8; Figs. 212-215, Nuttall 80, 72, 67, 28; Fig. 216, Vaticanus B 27.

Fig. 217, The sinner (*tlaciquani*) and the moon (*metzli*), Borgia 10.

Fig. 218, The twelfth month, Borgia 66.



Fig. 219. The feathered serpent, with a rabbit (the moon) in its jaws. Picture accompanying the god Xipe. Borgia 11.

Fig. 219\*a, b. The rabbit and the moon. c. The rabbit and a pulque pot(?). Lienzo de Çucatepec.

Fig. 220. *octeconad*, the pulque pot, and *tochtli*, the rabbit, likeness of the pulque gods. Borgia 23.

Fig. 221. The singing rabbits (*Totochtin*), the pulque gods. Sahagún ms., Biblioteca Laurentiana.

Fig. 222. Clay figure, Valle de México. Bauer Collection, Royal Museum of Ethnology.

Fig. 223. Glyph for *lamat*. Fig. 224. Rabbits(?). Tro 21b.

Fig. 225. The rabbit, Dresden 61.

watery planet, the moon shining with pale light. In my description of the reliefs of the temple pyramid of Tepoztlan I mentioned that the connection of King Auitzotl with the building is perhaps due to the fact that *auitzotl* is the moon, and Tepoztecatl, the god of Tepoztlan, the pulque god, was undoubtedly originally a moon god.

That a mythological significance is attached to the *auitzotl* is seen from the reliefs on a stone box, of which a fragment is in the British Museum (Fig. 199 on plate VII). As usual, this box has on both exterior and interior bottom surfaces the picture of the earth goddess as toad (Fig. 199c), and on the interior of the side walls, the picture of the *auitzotl* (Fig. 199b), but on the exterior of the sides (Fig. 199a) the picture of a personage descending from above, between drops of rain and cloud elements, who pours onto the earth water, blooming panicles, and young maize ears, from a jeweled jug (i.e. a jug decorated with the *chalchiuhtl* glyph, jewel )

The divinity-of course this personage is a divinity-is distinguished by a long fang protruding from its mouth and by the suggestion of a face marking: two fields, enclosed by a line, one surrounding the eye, the other, the mouth. It has two objects (feathers or hair plaits) above the forehead as they are worn, in the Codex Borgia and other manuscripts, by the moon god, the old moon and earth goddess, the fire goddess, the Obsidian butterfly, Xipe, Mixcoatl, and other star gods.

The Uhde Collection in the Royal Museum of Ethnology contains the cover of a stone box that in measurements exactly corresponds to /517/ the fragment in the British Museum, and from its contents and the character of its decoration is obviously the cover of the latter-as Mr. Wilhelm von Steinen, who made a drawing of it, saw at once. On this cover there is again the *auitzotl*, but executed in full figure and of course as a *bas-relief*. The image has the sign for water on its back and is sitting on its coiled tail as on a disk (Fig. 200a).

The animal forms the handle, as it were, of this box cover. On the under side there is a date, which unfortunately lacks one corner (Fig. 200b). From the traces of a curve, which may be seen at the edge of the break, /518/ we may conclude that on the right there were three double circles or units opposite the four on the left, and therefore the date *chicome acatl*, "seven reed," is recorded. This day belongs to the third Tonalamatl section beginning with *ce macatl*, "one deer," one of the sections assigned to the west, from where the Cuateteo, the specter women, descend. I wish, however, to call attention to another coincidence.

For a long time there has been in the National Museum of Mexico a relief tablet on which King Ticoc and his successor, Auitzotl, are pictured offering sacrifices.<sup>18</sup>

Above the grass ball with the agave points, which appears between the two kings, is the same date, *chicome acatl*, "seven reed." Below the two kings, however, at the main picture on this tablet, stands the date *chicueiacatl*, "eight reed."

On this relief the date "eight reed" has always been read = to A.D. 1487, i.e. the first year of the reign of Auitzotl and the year in which the new building of the great temple was dedicated. But the date "eight reed" is at the same time the eighth day of the sixth Tonalamatl section beginning with *ce miquiztli*, "one death," and this is the week of the moon, i.e. the planet that presumably found its embodiment in the mythic form of the *auitzotl*.

Be that as it may, the fact that the *auitzotl*, in spite of all the tales told of it, was a celestial being is clearly seen from our museum specimen (Fig. 200), since the entire exterior of the stone cover, on which the *auitzotl* with its coiled tail is sitting, is covered with disks (eyes) and hooks, i.e. with the elements of the firmament.

## 10. The Rabbit and the Hare

In Mexican "rabbit" is *tochtli* or *tochin*; "hare," *citli*. In Zapotec the former is *peela*, *peela-láce náce quicha*, "animal with fine hair," or *piteeza*; the latter, *peela pillána*, "dark animal." The Quiché and Cakchiquel call the rabbit *umul* and the Yucatecs, *thuul*. The name *halau* in Guatemala, *haleb* or *haleu* in Yucatan, is used for the hare but also for animals with hoofs, the paca (*Coelogenys*'s *paca*) and the agouti (*Dasyprocta* sp.).

The Mexican and Central American tribes saw a rabbit sitting on its hind legs in the dark design of the moon's disk (Fig. 217), which, as a matter of fact, is seen from a different angle in the tropics than with us. And the rabbit furthermore is a symbol of the moon and the month in general (Fig. 218), and above all, of the moon gods, or-let us say-a special class of moon gods, the harvest and vegetation deities, who were the gods of the intoxicating beverage, pulque, who were called the *centzin totochtin*, "one hundred rabbits" (Figs. 219\*c-222).

/520/ The rabbit was also the eighth of the 20 day signs of the Mexicans, and the goddess of the agave plant, *from* the juice of which the intoxicating pulque was manufactured, is the embodiment of this day sign and also the regent of the eighth Tonalamatl section.

/521/ In the Mexican manuscripts the rabbit was usually painted yellow or white, with black stripes (Figs. 202b, 206), rarely all black (Fig. 201). It is commonly painted white with black stripes in the Codex Borgia, where it is represented as in the moon (Figs. 217, 219); yet here too (Fig. 218) yellow coloring occurs. The typical long rabbit ears are distinctly indicated. In different





Fig. 226. The squirrel (*techilotl*). Magliabecchiano 64.

Fig. 227a,b. Mice (*qulmichin*) in glyph of Quimichtepec. Telleriano-Remensis 41 verso, 42 verso.

Figs. 228-229. ? Laud 45, Fejérváry Mayer 34.

Fig. 230. Glyph of Ayotochco. Mendoza 54, 3.

Fig. 231. Earthenware vase in the shape of an armadillo. Museo Nacional de México.

Fig. 232. Earthenware bowl from the ancient Indian grave site

of Tenenepango, at the foot of the crater cone of Popocatepetl. Museo Nacional de México.

Fig. 233. The armadillo, animal of the west. Tro 21\*d.

Fig. 234. The armadillo, in a snare. Tro 22\*a.

Fig. 235. The armadillo, symbol of the old god Itzamná. Tro 10\*a.

Fig. 236. Glyph of the armadillo. Dresden 21b.

Fig. 237. The armadillo, in a snare. Tro 9\*.



Fig. 238. The living armadillo, symbol of Itzamod, and the dead armadillo, symbol of the death god. Tro 10\*a.

Fig. 238\*a,b. Glyph of the fifth cardinal point. Cortés 22, Tro 35\*.

Fig. 239. The musk boar. Nuttall 73.

Fig. 240. The musk boar (above the jaws of the serpent of the south). Dresden 62.

Fig. 241. The black rain god (Ekel Chac) above the jaws of a

serpent. Dresden 69.

Fig. 242. Constellation of the Boar in conjunction with Venus. East Wing, Casa de las Monjas, Chichen Itza. Maudslay III, pl. 13.

Fig. 243. The musk boar, rain distributor of the south. Tro 27b.

Fig. 244a,b. The musk boar, in a snare. Tro 8a, 20\*a.

regions of Mexico the people called the donkey, introduced by the Spaniards, "Spanish rabbit," on account of its long ears.

In contrast to the deer, the rabbit is drawn in the Mexican manuscripts with a round eye. As a rule, the two rodent teeth are clearly indicated-but only those of the upper jaw, which indeed, when the mouth is closed, cover those of the under jaw. They are sometimes drawn correctly with broad lower margin and again (e.g. in the Codex Borgia) as long teeth hanging down over the under lip.

The day sign of the rabbit in the Zapotec is called *lapa*, *pelapa*, a root that means "divided," and has no connection with the names given to the rabbit. In the Cakchiquel, the eighth day sign is *k'anel*, for which Ximénez gives the meaning "rabbit," while the Tzeltal word is *lambat* and the Yucatec, *lamat*, but the true meaning of these expressions is unknown. Likewise, the glyph of the eighth day sign (Fig. 223) is obscure. The second and third form is similar to an element that, in compound glyphs, appears to be synonymous with "flint knife."

The fact that in the Maya day sign the rabbit is replaced by certain other symbolical elements is the reason the rabbit only rarely occurs in Maya manuscripts. An excellent and suitable picture is given in Fig. 225, which appears in the Dresden Codex on page 61, above the jaws of a serpent, analogous, as it were, to Fig. 219 given above from the Codex Borgia. But here in the Dresden not one but four serpents are drawn having above their jaws the rain god Chac, the rabbit, Chac again, and the wild boar (see below, Fig. 240). And on page 69 there is a fifth snake with a black Chac above its jaws.

15221 These serpent figures are connected with two different series (a red and a black) of very high numbers that have as their starting point not the usual date 4 *ahau* 8 *cumku*, but the date 9 *kan* 12 *kayab*, and seem to represent a special chronology. Both the rabbit and the wild boar have the same (priestly?) head covering as the opossum of Codex Dresden 25-28 (above, Fig. 189).

Stempell has pronounced-with a question mark-the two animal figures of Tro 21b, Fig. 224, as rabbits. It is true they have erect ears, but on the whole they display little that is distinctive.

### 11. Other Rodents

Of other rodents I can refer to Fig. 226, a squirrel, which in the Codex Magliabecchiano is the glyph for one of the dance gods who appears as a companion of or another form of Ixtlilton. I mention also the mice, Fig. 227a,b, which in the Codex Telleriano-Remensis are drawn in the glyph of the city of Quimichtepec, "Mice

place." The little animal in Fig. 229 suggests these mice. It is given above on p. 184, Fig. 146, where, as I stated, the animals who know about the maize are perhaps discussed.

I also add here the curious animal figure, Fig. 228, although I have nothing to say about it.

### 12. The Armadillo

The armadillo is called by the Mexicans *ayo-tochtli*, "tortoise rabbit," or "rabbit with a hard shell." Thus with Claus-Grobben I may be allowed to class this toothless species with the rodents.<sup>19</sup> The Guatemala tribes called the armadillo *iboy*, and /523/ the Tzeltal of Chiapas, *ip*. Among the Yucatecs it is called *uech* or *huech* (i.e. *ah-uech*, "he, *uech*") and *ibach*.

A picture of this animal-but a very conventionalized representation-as an armored rabbit, is given in Fig. 230, which stands for the town of Ayotochco, in the tribute list of the Codex Mendoza. On the other hand, Fig. 231 is a very realistic representation of an armadillo. 1524/ It is on a vessel of light-gray tone, which I assembled from sherds in the National Museum in Mexico, and which clearly represents not the usual Mexican armadillo, the *Tatu novemcinctum*, but the bolita, the *Tolypeutes tricinctus*.

It is true the illustration has one band too many, but it is quite possible that the hasty sketch that I was able to make in Mexico is not exact, and I drew an extra band. That in Mexico there were also armadillos with strongly projecting head shields 1525/ is seen from a number of earthenware bowls from the old Indian churchyard of Tenenepango, high up on Popocatepetl, that Désiré Charnay dug up. For on these bowls the three feet have the shape of an armadillo head with a forehead shield.

In the usual Mexican manuscripts the armadillo is wanting, but it is represented several times in the Maya manuscripts. I mention first Fig. 233, which is the male component of the third pair represented on Tro 23\*-21 \*d (see p. 183, above, Fig. 136) and on page 21b of the Dresden manuscript. I mentioned above that in the Dresden only the second (the dog and the sky goddess) of the four pairs is drawn in full figure. In lieu of this we have in the Dresden (Fig. 135, above) glyphs given for each of the five persons concerned (four male and one female), and thus also the glyph of the armadillo, which is not known elsewhere and is given here separately in Fig. 236.

An armadillo in the snare is shown in Figs. 234, 237. Finally, of special interest is Fig. 238, which opens a series of pictures in the Codex Tro in which a winged insect is descending-a bee, as has been assumed. This bee is repeated in each picture, and the series has there-





Fig. 245. Chac, the rain god, and the four animals, the water distributors. Tro 27b.

Figs. 246-248. Chac, the rain god. Dresden 30a, 44a, 67c.

Fig. 249. Ah bolon ts'acab, the water god, regent of the *been* years of the east. Dresden 25b.

Fig. 250. Ah bolon ts'acab, the water god, in the *xmu kaba kin*

of the *x'znab* years, sacrificing before the *uuyyab* demon. Dresden 26c.

Fig. 251. Ah bolon ts'acab, the water god. Dresden 3a.

Figs. 252-257. Glyph of Ah bolon ts'acab, Copan, Stelae D, J, P north, Altars Q 15, H.



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Fig. 258. Ah bolon tx'acab, Coqan. Maudslayi I, pl. 9.

Fig. 259. Head of a stone figure of the rain god, Tlaloc. Uhde Collection, Royal Museum of Ethnology, Berlin.

Fig. 260. Tlaloc, the rain god, regent of the seventh day sign

magad, "deer," Borgia 12.

Fig. 261. Tlaloc, the rain god, god of the west. Magliabecchiano 89.

fore been designated a calendar for bee keepers. Here in each house in which this descending insect is seen -sometimes alive, and again dead (with shut eyes)- an armadillo is drawn; the first armadillo is alive, the second is dead with round death eye, with the dotted drawing indicating the body condition of the members. Whether this insect is to be explained as a bee will be discussed later.

At all events this house with the insect clearly means nothing further than the celestial height, as the glyph of the insect, the second in the group, means nothing more than the "animal of the height." Compare the glyph of the fifth direction, the middle, or the direction from above downward, which I have reproduced in Fig. 238\*a,b, from the Madrid manuscript. /526/ The armadillo of this house, however, the celestial armadillo, is surely meant to pass here as the symbol of the god Itzamná, i.e. the death god, whose glyphs are given with those of the insect in the groups of glyphs.

Likewise, in my opinion the three animals-dog, armadillo, deer-that are represented in Figs. 135, 136, with the old black god (the fire god) in copulation with the sky goddess, are doubtless merely supposed to be other forms of these fire deities. We know the dog and the stag are animals of fire, symbols or forms of fire. The celestial armadillo, which, according to Figs. 135, 136, and also according to our Fig. 238, is assigned to the west-the god Itzamná (Fig. 238) rules the west years-can hardly be anything other than the light body, the moon, remaining in its shell.

This mythical significance alone explains the occurrence of this animal in the manuscripts. For these picture writings, the Mexican as well as the Maya, are religious books, diviners' books, and the animals and men represented therein are mythical, demoniacal characters having power as diviners.

We can concede to Stempell that the animal in Figs. 233-238, which is evidently of slender habit, is probably to be classed with the most widespread species, the *Tatus novemcinctus*, although in /527 / no case are nine bands or belts distinctly drawn. The two figures referred to by Stempell from Codex Tro 3a, 2a, which he prefers to consider as *Tolypeutes tricinctus*, are not armadillos, but belong to the second category of lightning creatures, which I have classed above, p. 182, among the dog-like animals (Fig. 133). What Stempell considers as a strongly projecting armadillo head shield is the *akbal* sign, "night, firmament," over the eye, which is the special mark of this second class of lightning animals.

### 13. The Navel Boar and the Musk Boar

The native wild boars<sup>20</sup> were called by the Mexicans

*coyametl* and *pitzotl*, *picotli*, *pecotli*; the last-named, however, was also applied to the tejón, or coati, which, indeed, like the boar, also has a snout-like elongated nose. Since the introduction of the European boar here, this native species is distinguished by adding *quauh* or *quauhtla*- "wood"-i.e. it is called *quauhcoyametl* and *quauhpicotli*, *quauhpecotli*.

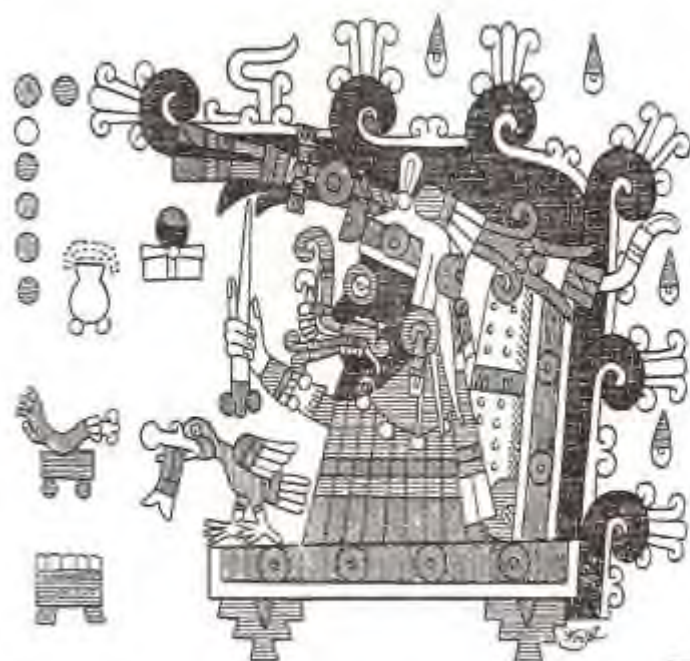
The Zapotecs called the wild boar *péhue* or *péhue-tári*, *péhue-quijxi*, "mountain boar, wood boar." Among the Quiché and Cakchiquel the boar is *ak* or *quiché ak*, "wood boar," among the Chiapas tribes, *chitam*, and among the Yucatecs, *citam*. In Yucatan the latter name in particular is used for the smaller species, the *Dicotyles torquatus*, while the larger musk boar is *keken*, or *u kekenil kax*, *u kekenil ché*, *keken km*, *keken ché*, the latter names distinguishing the wild boar from the European boar, which is also called *keken*.

I know nothing special to state from Mexican sources regarding a mythic significance for this animal. Among the Quiché-Cakchiquel, however, the boar (*ak*), together with the coati (*tziz*, *ziiz*) formed a pair that corresponds in a measure to the pair consisting of the opossum (*vuch*) and coyote (*utiu*), since the first, the boar, evidently embodied the female power and the coati the male power. *Zaki nima ak* and *zaki nima ziiz*, "large white boar" and "large white coati," like Hunahpu vuch and Hunahpu utiu, are names of the creative divinity. But while the opossum and coyote belong to the cardinal point west, the boar and coati are assigned to the south in these legends (see above, p. 191).

/528/ From Mexican sources I can cite only Fig. 239, which is pictured on page 73 of the Codex Nuttall on an uncolored disk, enclosed by a ring planted with trees-a representation the only analogy to which I can cite is a sun disk enclosed by a similar ring, which occurs on page 76 of the same manuscript. In this-despite the conventionalization-the musk boar is distinctly characterized by its hairy coat, hoofs, broad snout, ear shape, crest of bristles extending along the back, abbreviated tail, and the musk gland discharging from the rear of the back.

The same is true of the animal in Fig. 240, which is drawn on page 62 of the Dresden manuscript as the fourth of the 4 gods above the jaws of the serpents that are connected with the double series of high numbers starting from a special date. As fourth of the 4 figures this animal would represent the south, while the rabbit, which is given, above in Fig. 225, is second of the 4 figures and therefore belongs to the north. Also, in Fig. 240 the musk boar is most clearly distinguished by the hairy skin, hoofs, broadened snout, bristly crest, abbreviated tail, and musk gland.

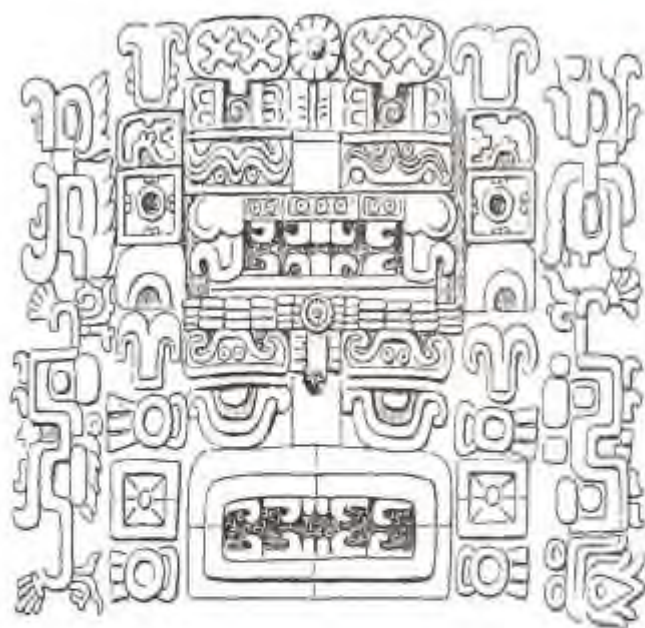




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Figs. 262-263. Tlaloc, the rain god of the Mexicans: Fig. 262, Laod 12; Fig. 263, Vaticanus B 89.  
Fig. 264. Corner of the east structure of the Casa de las Monjas, Uxmal.

Fig. 265. The two uppermost masks of the column of the east structure of the Casa de las Monjas, Uxmal. (The trunk-shaped noses are omitted in the drawing.)

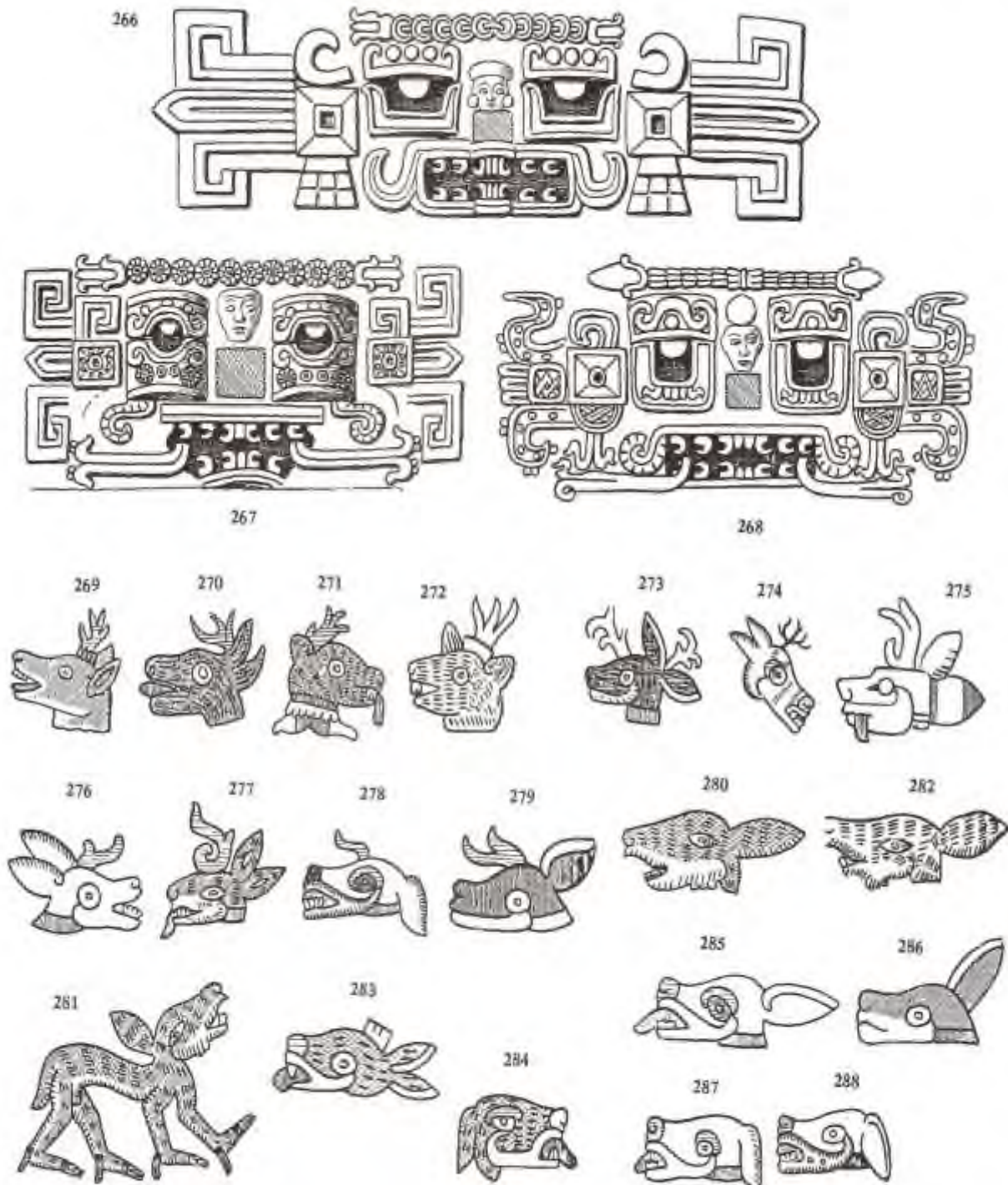


Fig. 266. Casa de las Monjas, Chichen Itza. East Wing, southern detached structure.

Fig. 267. Casa de las Monjas, Chichen Itza. East Wing, south front.

Fig. 268. Casa de las Monjas, Chichen Itza. East Wing, north front. (The trunk-shaped noses are omitted in the drawing.)

Figs. 269-288. The deer, seventh day sign of the Mexicans: Fig.

269. Magliabecchiano 12; Fig. 270. Aubin Tonalamatl 7; Fig. 271. Telleriano-Remesís 16 verso; Fig. 272. Humboldt ms. 1; Fig. 273. Vaticanus B 64; Figs. 274-275. Bologna 6, 31; Figs. 276-279. Nuttall 43, 37, 49, 77; Figs. 280-282. Borgia 5, 19, 12; Figs. 283-284. Vaticanus B 1, 3; Figs. 285-288. Nuttall 74, 79, 83, 83?

As other marks I call attention to the narrow eyes, like slits, and the teeth. The irregular oblique insertion of the boar's incisors, interrupted /529/ by gaps, is reproduced here excellently, and these teeth are thus very strikingly distinguished from the teeth with which, in the manuscripts, beasts of prey, on one hand, and other rodents or grass-eating ruminants, on the other, are pictured.

In the Maya manuscripts the cardinal points are distinguished according to color: east is yellow (*kan*), north is red (*chac*), west is white (*zac*), and south is black (*ek*), and, accordingly, the rain god of the south in the Dresden is also painted black in different places. A black rain god of this sort is pictured, on Dresden page 69, as the only figure above a serpent with high numbers and with groups of glyphs similar to those with the four figures of Dresden pages 61,62. This deity wears an animal's head as head dress, which indeed differs somewhat in the shape of the ears, but the narrow eye, the shape of its snout, and the form of its teeth suggest to me the animal just discussed, the musk boar.

The presence of this animal in these two places in the Dresden manuscript is distinct evidence that the wild boar played a part in Maya mythology. The species does not admit of determination. But I call attention to the fact that the wild boar of these tribes also /530/ designated a constellation in the sky. This is proved by a narrow relief band that is on the main facade of the east wing of the Casa de las Monjas at Chichen Itza (Fig. 646).

On this band, conjunctions of the planet Venus with different constellations are evidently illustrated, since at certain intervals animal figures are introduced in the same small square with the Venus glyph. One of the first of these animal figures, which I have reproduced in Fig. 242 with the Venus glyph, just as it is introduced there on the relief band, obviously represents the wild boar.

Notwithstanding the poor and conventionalized drawing, Fig. 244a is a very plain picture of the boar. Stempell has explained this as an agouti, a hoofed rodent. But I think the following characteristics make it clear that it is intended for a boar, although there is no musk gland on the back: the hoofs with dew claws, which in their form agree perfectly with those with which in these manuscripts the feet of a boar are pictured, the bristly coat and the crest of bristles, the short tail, and above all the snout-like, enlarged nose, which in its form could be an exact copy of the boar's snout in the Codex Nuttall (Fig. 239).

Likewise, I do not hesitate to explain Fig. 243 as a boar. The animal is represented on page 27b of the Codex Tro (Fig. 245) as the fourth (south) rain bringer. The animal caught in the snare (Fig. 244b) differs from the other pictures /531/ in its curious elongated probos-

cis-like nose, which almost suggests that of a tejón, a coati. I do not hesitate in identifying this animal too as a boar.

#### 14. The Alleged Elephant Pictures

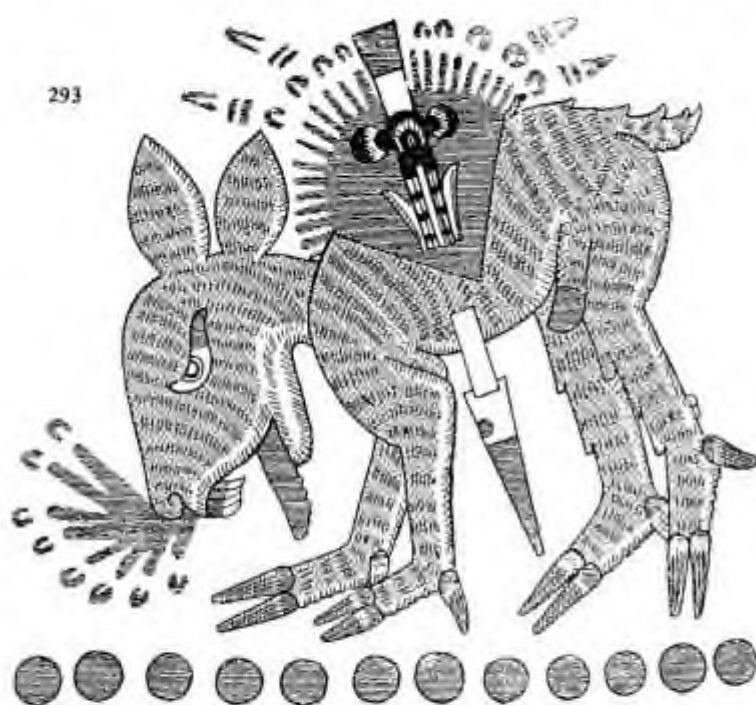
Stempell considers it not only possible, but almost certain that the long and peculiarly bent nose that occurs in pictures of the rain god Chac, in the Madrid and Dresden Codices (Figs. 245-248), the considerably less curved nose displayed by the god of water and fertility on the monuments (Figs. 252-258), the peculiarly proliferous nose of Ah bolon tz'acab, the water god of the manuscripts (Fig. 249-251), and the long and flourishing nose of the giant masks that sometimes decorate the entire facades of temples in Yucatan (Fig. 264), owed their origin to the idea of the elephant. The ancestors of these tribes, having been acquainted with the elephant by direct observation during the first epochs of the Quaternary period, transmitted the tradition.

The proof of this is that the resemblance of these heads of gods to an elephant does not lie alone in the length of the nose, but in addition is expressed by its characteristic shape and curve, by the configuration of the head as a whole, and-"last but not least"-even the tusks are drawn. The species in question he identifies as the *Elephas columbi falcon*, a variety of the *Elephas primigenius*, the European mammoth, the remains of which are found in the lower Pleistocene or upper Pliocene, /532/ i.e. in comparatively recent formations of Texas, California, Colorado, Florida, and Mexico.

Granted that the above assumption is a possibility after discovering the remnants of skins of the glyptotherium in the cave of Ultima Esperanza, we have become somewhat credulous in this respect-then the individual who wishes to have us believe it must still explain a number of other things. First, there is the fact that such a memory of elephants is said to have been retained only among the Maya peoples, while nothing of the sort is known among the neighboring and culturally allied Mexicans. At best, the mammoth pipe of Ohio could have been brought from more remote regions, but no critically minded man will consider this satisfactory evidence. Furthermore, the advocate of such a hypothesis must supply us with proof that this type has descended from the primeval age or must be able to show the stages of development from the natural appearance to these conventionalized representations. Let us see what the facts are.

The most pronounced elephant-like development of the nose is in the Chac pictures of the Madrid manuscript and in the giant masks after the style of Fig. 264. Both are specifically Yucatec, and both belong to a late peri-





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Fig. 293. The deer of the north. Borgia 22.

Fig. 294. The deer, animal of the center. Tro 27b.

Fig. 295. The deer, lord of Katun 4 ahau. Pérez 5.

Fig. 296. The deer, in a pitfall. Tro 21\*a.

Fig. 297. The deer, in a snare. Tro 22\*a.

Fig. 298. The deer, lord of the south. Tro 21\*d.

Fig. 299. The glyph for manik.

Fig. 300. The glyph *ceh*, "deer." Dresden 13c, 21b.

Fig. 301. The deer demon and a hind. Dresden 13c.

Fig. 302. The deer demon, lord of 12 ahau. Pérez 10b.

od. It is clear that the Madrid is more recent than the Dresden. The former calls the years after *kan*, *muluc*, *ix*, and *cauac*, as was done in Yucatan at the time of the Conquest, while the Dresden has the unquestionably older naming with *been*, *e'tznab*, *akbal*, and *lamat*, also known to the Mexicans or originating with them(?).

That the Yucatec buildings, however, are also more recent than the cities of the neighboring regions, of Chiapas, Guatemala, and Honduras, is proved by the fact that the only initial series discovered in Yucatan reckons ten cycles from the starting point of the chronology, while the entire multitude of the monuments of Chiapas, Guatemala, and Honduras reckon only nine. Only the two stelae of Sacchaná in the Nenton district, which I discovered, reckon ten cycles.

But in the Dresden manuscript, as Stempell himself states, the noses of the gods' heads in question are much shorter and more nearly approach the human-shaped nose than in the Madrid manuscript (cf. Figs. 245, and 2462"+8), and in the /533/ figure reliefs and the glyph of the great monuments of Chiapas, Guatemala, and Honduras, we find nowhere such extravagant noses. Furthermore, the shape here is much less fixed and usually bent downward instead of upward. And he who knew only the noses of the figures and glyphs of these large monuments would hardly form the idea that they were likenesses and copies of elephant trunks.

An analogous development of ordinary noses into a kind of elephant's trunk, but which has arisen in a very different manner, I can point out in the Mexican pictures 535/ of the rain god (see Figs. 259-263), to which I referred in my first article dealing with the rain god of the fava manuscripts.<sup>21</sup> I have already-and so has Brinton-connected the long nose of the rain god Chac with the tapir (*tzimin* of the Yucatecs) because occasionally we find the name of this god associated /536/ with that of the tapir ("Tzimin Chac"), and because in fact the tapir played a part in the mythology and in the worship of these tribes. For my part, however, I have always treated this merely as a supposition that I was far from upholding as a positive fact.

A very different origin is possible and even probable. The proliferous nose of the water god, Ah bolon tz'acab, may be readily derived from the god with the affixed serpent jaws of the Zapotecs and the neighboring coast, or from similar representations. And the bent-down nose of the Yucatec Chac could have been developed simply from the idea of the rain god. With Chac and allied personages, especially in the Madrid manuscript, pipe-like designs figure, along which drops roll to the ground. It would be only natural if the rain god expressed on his exterior the idea of streaming down, coming quickly to

the ground.

But when Stempell wishes to connect the teeth projecting from the mouth of the rain god with elephant tusks, then the imposing large mammoth teeth would have undergone a remarkable reduction in size. In truth the equipment with long, projecting, crooked tusks is so common an occurrence with demoniacal personages of the most varied sort that it is unnecessary to call particular attention to them. The rain gods in particular are everywhere connected with serpents that appear in the lightning, and it is the long curved fangs of serpents, and not elephant tusks, with which the rain gods are equipped.

A clear proof of this is in the Mexican Tlaloc pictures, the face of which is formed of the coils of two serpents (Figs. 259-263). The peculiar curve of the long teeth of the Yucatec rain god and the Yucatec water god is explained by the special style of linear drawing present throughout Maya art. When the giant masks of the Yucatec temple facades have tusks-and this is not at all common and indeed not very frequently the case-they are forked and have more the appearance of vines than of teeth (Figs. 267, 268).

A hypothesis like this, now advanced again by Stempell, must rest on other ground than a mere similarity of form, otherwise it is nothing more than a play of the imagination comparable to the attempts to connect genetically, on mere similarity of sounds, words of one language with those of another chosen arbitrarily. It is imperative to oppose such interpretations. /538/ The matter has made trouble enough; it can boast of some noted names in its favor, and it meets the world's need for a scientific sensation.

The kind of fruit it bears may be seen from a book that appeared recently in London, where the Copan relief in Fig. 258 is also given, but with the legend, "The Yucatan-God of Copan (sic!), Cum-ahau, the lord of the bowl, pictured as the Indian elephant-headed god Ganisha, the lord of the land, sitting on the double Suastika."<sup>22</sup>

## 15. The Deer

1539/In Mexico and Central America there are two main groups of deer, the large deer with branching antlers, *Cariacus virginianus* Brooke, to which in recent time the genus name *Odontocoelus* (corrected from *odocoileus rafinesque*) is given, and the smaller deer, *Coassus nemorivagus* Scht., which, according to Rafinesque,<sup>23</sup> is now called by the genus name *Mazama*.

The species of the *Odontocoelus* genus is called by the Mexicans *macatl* (plural *maca-me*). And the genus name given by Rafinesque for the smaller deer, *Mazama*,



Fig. 303. Itzamná and a hind. Dresden 13c.

Fig. 304. Dresden 60a.

Fig. 305a, b. Cortés 14b, 2b.

Fig. 306. The deer as oblation. Cortés 5a, Dresden 38c, 30b, 35a, Tro 7b.

Fig. 307. The deer hunter, in the five cardinal points (east, north, west, south, above). Tro 19, 18a.

Fig. 308. The captured deer, in the four cardinal points (north, west, south, east). Tro 11, 10a.

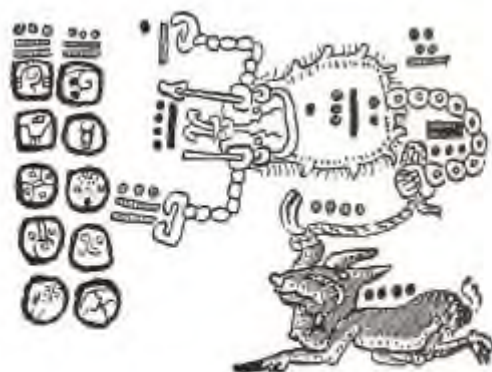




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Fig. 309. The scorpion-tailed deer and a deer. Tro 18b.  
Fig. 310. The stag. Tro 15b. Fig. 311. The scorpion.

Figs. 312-313. The scorpion: Fig. 312, Tro 18c; Fig. 313, Tro 7b.  
Figs. 314-315. Cortés 34b, 35a.

is evidently only a rendering of this plural expression, based on a misunderstanding. The Zapotec call the large deer *pi-china*. In the Maya language it is *queh*, *quieh* (in the Yucatec mode of writing, *ceh*)<sup>24</sup> or, in consequence of the indistinctness of the final aspirate, *ce'* (according to the Yucatec mode). The small deer seem to have been distinguished by no special name among the Mexicans. In Yucatan they are called *yuc* or *yuc-ceh*. *Yuc* is also used for the European goat.

In a great measure the deer is a mythological animal. It represents the host of stars that, chased by the morning star, are driven from east to west, and therefore became a symbol of the fire (shining at night) and the animal of the fire god and the lightning god. A special role is played in the legends by the two-headed deer that falls from the sky and is really a woman. It is shot by the star god Mixcoatl and, again becoming a woman, is forced to cohabit. Their son is the culture hero Ce-acatl Quetzalcoatl.

This fact that a goddess in deer disguise occupies so prominent a place in the mythology of these tribes is undoubtedly also the reason that in a large part of the documents the deer is pictured without horns. For also, apparently, where only deer hunters are pictured—as in the Madrid manuscript—the men arriving with their booty are not usually hunters, but gods; the subject is a celestial hunt. This is the simple solution of the problem that Stempell brings forward, and because of which he asks the question whether perhaps a hornless species of deer, now extinct, was not the original of the deer pictures in the Maya manuscripts.

This assumption does not justify the fact that the two-headed deer, who is really a woman, is also pictured with horns (Fig. 291); we see from Fig. 291b that the deer pictured there is clad in a hip cloth, i.e. is supposed to be a woman, and conversely, that the animal pictured in the sacred writings /541/ customarily as a hind is now also pictured without horns, and here it is plain from the private parts that it is intended for a stag (Figs. 293, 310).

The deer is the seventh of the 20 day signs of the Mexicans, and the rain god, Tlaloc, is its embodiment, for Tlaloc is the lightning god and, in addition, in the symbolism of these tribes represents the rain of fire by which the third of the four prehistoric periods of the world came to an end.

In the Mexican documents, of course, the large species of deer, the *Odontocoelus* group, is the original of the pictures. Some are represented with horns (Figs. 269-279, 291, 292); others, without. Where the horns are drawn there is usually the forward curving of the ends characteristic of the Virginian deer. Occasionally a

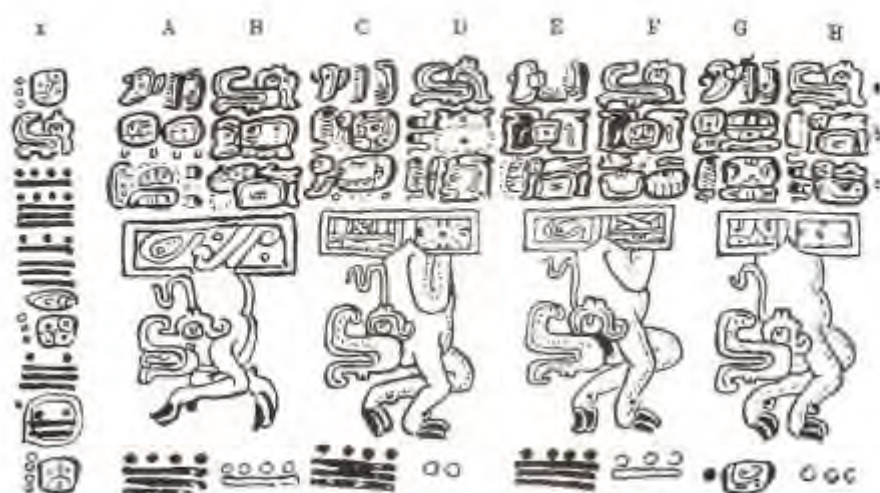
burr is drawn at the base (Figs. 269, 272). There is also a picture with the burr alone, and without the horn rising above it (Fig. 283). But, for example, in the Codex Borgia the deer, with one exception, is always represented without horns. The head is always quite long, the eye in the Borgia is usually a long, narrow slit, in contrast to that of the rabbit, which is round.

The striking characteristic of the chief classes of ruminants, the lack of upper incisors, is reproduced true to nature in some pictures (Figs. 276, 278, 280-282, 284-285, 287-288, 290-292), while in others (Figs. 269-270, 272, 283, 293), contrary to nature, /542/ the front of the upper jaw is supplied with teeth of varying length. The skin is yellow or brown, the lighter color and the thicker hair of the belly are usually clearly expressed. The pairing of the toes, the hoof-like condition of the nails, and the dew claws are everywhere discernible (Figs. 281, 289-290, 291b).

With few exceptions the principal pictures of the Maya manuscripts have no horns. The deer in the pitfall (Fig. 296), to which Stempell called attention, has small *mazama*-like horns. The deer of the Codex Pérez (Fig. 295) has branching antlers /543/ with the ends curved forward like those of the deer pictures of the Mexican documents, and also of the bi-colored deer demon of the Dresden manuscript (Fig. 301). In Figs. 295-296 a distinct burr appears at the base of the antlers. These, however, are the only deer with antlers known to me in the Maya manuscripts.

The comparatively more frequent occurrence of antler-bearing deer in the Mexican documents is to be traced back to the fact that a large number of deer given there are pictures of the seventh day sign. In Yucatan the seventh day sign has lost its name, "deer"; it is no longer called *ceh*, but *manik*, and in its glyph a symbol appears in place of the deer head that is a reproduction /544/ of the gesture of eating (Fig. 299)—the hand, with the finger tips touching, which is held to the mouth, as one carries food to the mouth in eating. Where deer occur in the Maya manuscripts, therefore, they have reference to this event, and the event is wholly mythological.

This is clear, for example, see p. 183, above, Fig. 136, where the deer is represented (drawn separately in Fig. 298) with the dog and the armadillo, as a substitute for—or another form of—the old fire god in coition with the sky goddess. This is also understood, for example, in pictures like Figs. 85 (above, p. 177) and 308, where we see the deer lying on the shield covered with astronomical signs, the symbol of the sky. Finally, this is already clear in the First series (Fig. 307) with which in the Codex Tro the group of representations begins, designated "calendar for hunters." For in this series indeed the



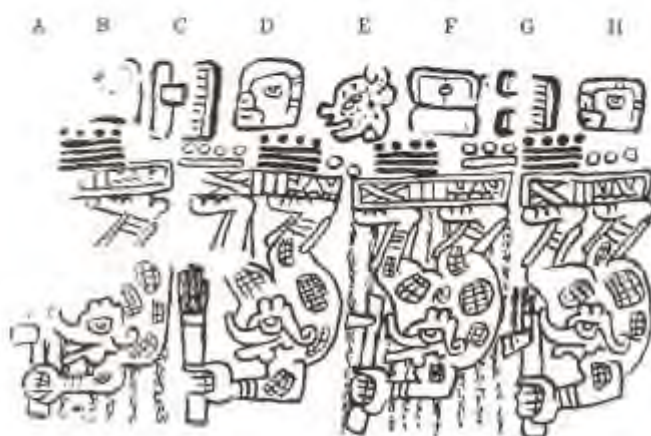
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Fig. 316. Dresden 43b, 44(I)b, 45(II)b.  
Fig. 317. Cortés 2a.

Fig. 318. Dresden 68a.

Fig. Pérez 6b.  
Fig. Dresden 74.



hunter is represented very realistically-in five pictures corresponding to the five cardinal points-with net slung around the forehead, holding a spear in his hand and a spear thrower in his arms, or seizing the captured deer /545/ or bearing it on his back (Fig. 307).

But this hunter is a god, he is the old god with the *chicchan* spot-whom Schellhas identifies with the young god, his god H-and his glyph is at the right end of the second row of glyphs in Fig. 307. And in the group of glyphs of Fig. 307-having a common glyph, which presumably means "grasping, catching, hunting," and which also recurs in the Codex Dresden at the beginning of long rows of glyph groups-the pictures of the five cardinal points (east, north, west, south, /546/ and above) are first reproduced, but next, as a rule, comes only the glyph of the dog falling from the sky, the lightning beast, and a peculiar reptile-like head, which occurs on Codex Tro 26\*, 25\*a, 23\*a (p. 181, above, Figs. 132, 131) as glyph of the second lightning beast, the unspotted, dog-like animal with the *akbal* brow. Figure 307 also has to do with celestial events or pictorial imitations. And the same will have to be assumed of Fig. 308, and in general for the whole so-called "calendar for hunters."

With the deer, whose glyph occurs in the glyph groups of Figs. 301 and 135 (drawn separately in Fig. 300), a deer demon appears in the Maya manuscripts, who in the Dresden is represented in coition with the deer (Fig. 301), in the Codex Pérez is introduced as the lord of *katun 12 ahau* (Fig. 302), and in the Madrid (Figs. 3] 2315) is clearly recognizable as a form of the god Ekchuah, the black god with the scorpion tail, i.e. the second form of this god, the black god with the large under lip,<sup>25</sup> and at the same time as a blind god.

/547/ The hieroglyph of this demon stands in Fig. 301 at the beginning of the second row of hieroglyphs; an allied hieroglyph is also given for it in the Codex Pérez (see Fig. 302). The connecting of the deer with this demon explains the curious instances, Figs. 309, 311, and similar cases, where a scorpion appears as deer hunter and deer catcher. For this scorpion, of course, is only the disguise or another form of the god /549/ with the scorpion tail, the black god who is at the same time the deer demon.

In the Maya manuscripts the deer is drawn with tolerable uniformity, with brown coat, light-colored, and thicker hair on belly, long head, long pointed ears, short bushy tail, and two hoofs with dew claws on each foot. As a rule the mouth is shut and teeth are rare. In the excellently drawn Fig. 304 the presence of incisors is distinct only in the lower jaw. In other cases, e.g. Codex Tro 8c, contrary to nature, conventionally drawn teeth

are in the upper jaw.

The stag (Fig. 305b), or the legs or thighs of stags (Fig. 306), appear finally as sacrificial gifts, in regular interchange with fishes, turkeys, and iguanas, ordinarily in the sections that are destined for the gods who live in the north.

#### 16. The Lightning Animal with Hoofs

On pages 44 and 45, the end of the back of one-half of the Dresden manuscript, Fig. 316 occurs in connection with a series of numbers that advance at intervals of 78 or 780 and start and end on 3 *lamat*. Here are four shields with astronomical signs, symbols of the sky, from each of which a fantastic animal body hangs. The head has a proboscis-like, retroflex snout, the round eye is over-arched by a large brow, and the feet have deer hoofs. Page 2a of the Codex Cortés /550/ contains a parallel representation (Fig. 317).

The animals hanging here from the celestial shield have the same proboscis-like nose bent upward, the same large eye brows, but they have human hands and feet and hold an axe or a torch in their hands. They are, therefore, lightning animals. And as such, the animals of the Dresden manuscript (Fig. 316) are also distinctly characterized, since in the first row of glyphs above them the head of the animal stands as glyph and in front of this is the glyph of the axe bearer.

These characters naturally evade zoological determination, and I have introduced them here merely on account of their deer hoofs. /551/ The pictures, Figs. 316, 317, however, are not the only cases of this kind in the Maya manuscripts. Dresden 68a (Fig. 318) shows clearly the same animal hanging from the sky. Here, however, it is drawn in full figure, and we see that it is intended to have a long tail and a crest of spines along its entire back-characteristics that make the animal decidedly resemble a reptile, a crocodile, or a lizard. Rain is descending from the sky' to which the animal hangs, and below sits the maize god with *kan* and *imix*, symbol of provisions, in his hand.

A still stronger reptile-like impression is produced by Fig. 320 and the analogous pictures On pages 2-11 of the Codex Pérez (Fig. 319). The animal in Fig. 320 differs somewhat, since /552/ its snout does not have the trunk-like elongated curve. In the Pérez (Fig. 319) the curved snout and the large eye brows are distinct, but the hoofs are wanting. At both places this lightning animal with hoofs forms the end, bent to the earth, of a celestial shield-or, what is the same thing, the celestial shield forms the body of the lightning animal with hoofs.

Thus these fantastic animals are clearly homologues of the crocodile-like animals that we often meet among the

sculptures of Copan and other large ruins, the bodies of which generally have the form of an open bow, and the animals are therefore obviously mythical conceptions and embodiments of the firmament.

1. That is, *Zeitschrift für Ethnologie*, Vol. XL.-L.E.S.T.

2. Brasseur de Bourbourg's folioing of his original 1869-70 facsimile edition of the Codex Tro requires asterisks to indicate the reverse sides of the pages, sequentially 1-32.-F.E.C.

3. "Über Tierornamente auf Tongefässen aus Alt-Mexiko."

Publications of the Royal Museum of Ethnology (Berlin), Vol. VI (1899), pages 11-13.

4. George Gordon, "Researches in the Uloa Valley." Peabody Museum, *Memoirs*, Vol. 1, No. 4, plate IIIb.

5. Figure numbers with asterisks occasionally indicate the addition of illustrations without altering the numbering sequence. See end note on p. 340.-F.E.C.

6. Alfred Nehring (1845-1904) covered the mammals of Peru in W. Reiss and A. Stuebel. *Die Necropolis of Ancon in Peru*, 3 Vols. Berlin: Asher, 1880-1887.-F.E.C.

7. *Historia Quadrupedum Novae Hispaniae*. Rome: 1651, Tract. I, Ch. 20. [Translation courtesy of Marianist Community, San Antonio, Texas.-F.E.C.]

8. Sahagún, Bk. 3,

App. Ch. 1. 9.

Sahagún, Bk. 11, Ch.

1, §1.

9. Sahagún, Bk. 12, Ch. 31.

11. *Abhandlungen* Vol. 1, pp. 218, 219. [Omitted in the present edition; see footnote, Vol. 1, p. 54. See also B.A.E. Bulletin 28, pp. 123-229.-F.E.C.]

12. Op. cit. Publications of the Royal Museum of Ethnology (Berlin), Vol. VI, Part 1, 1899.

13. Sahagún, Bk. 11, Ch. 1, §4; Bk. 6, Ch. 4.

14. Hernández, *Rerum Medic.* Rome: 1651, Vol. IX, Ch. 18, page 330.

15. Sahagún, Bk. 6, Ch. 4.

16. Sahagún, Bk. 11, Ch. 4, §2; Bk. 5, App. Ch. 1, No. 29.

17. Sahagún, Bk. 11, Ch. 4, §2; Vol. III of the present edition, p. 280.

18. Vol. III of the present edition, p. 112.

19. Carl Friedrich Wilhelm Claus (1835-1899) was a zoologist; Karl Grobben was his editor.-F.E.C.

20. The navel boar or "jabali" = *Dicotyles torquatus* = *Dicotyles*, Sect. *Tayassu*; the musk boar or "puerco del monte" = *Dicotyles labiatus* = *Dicotyles*, Sect. *Olidosus*.

It is far from clear to me why the principle of preference should be carried so far as to use "tagassu," which is an error in writing or reading, instead of the correct word *tayassu*, or *tayacu* belonging to the Guaraní language.

21. "Maya Manuscripts and Maya Gods." Vol. I of the present edition, pp. 88-89.

22. J. F. Hewitt, *Primitive Traditional History: the Primitive History and Chronology of India, South Eastern and South Western Asia, Egypt, and Europe, and the Colonies*. London: James Parker, 1907, Vol. 11, page 660.

23. Constantine S. Rafinesque (1783-1840) was a prolific

American naturalist.-F.E.C.

24. Of the "Maya" names that Stempell, following de Rosny, gives for the deer, the first, *mazatl* is Mexican. The other, *zeb*, arose from a misunderstanding of *ceh*. The author has read the *c*, which in Yucatec sounds like *k* before *e* and *i*, according to the Spanish orthography, as *s* or *c*; and *b* is a mistake in writing or reading and should be *h*.

25. See my commentary on the Codex Borgia, Berlin: 1904, Part I, pages 319-326

## BIRDS

## 17. The Parrot and the Macaw

/552/ The Mexican and Central American races with special names distinguished between the short-tailed and long-tailed parrots, and of the former, between the large and small species. The large green parrots with short tails the Mexicans called *toztli* and *toznene*. The peagreen color of their feathers they considered a kind of yellow. Another species, which also could be taught to talk very well, green with red head and red upper wings, they called *cocho*. The small green parrots were called *quiliton*. The large, long-tailed macaws, the *arara* of the Brazilians, the Mexicans called *alo*.

The Zapotecs called the large green parrots *mani péo*, a name that also belonged to the moon (*máni péo caa quiepa*). A small species, corresponding to the *toznene* of the Mexicans, was called *mani-xijca* or *péo-xijca*. The *cocho* of the Mexicans is also called among them *cócho*, *máni-cócho*; the dwarf parrot, *máni-quili* the large macaw, *péhua*, *máni-péhua*. For the short-tailed parrots the names *chocho* (Kekchi) and *chel* (Quiché) are used in Guatemala. The Maya of Yucatan called them *x-thuth* and *kan tz'ulop*. The large macaws are called by the Quiché *cakix*, and in the Alta Vera Paz and in Yucatan, *moo*.<sup>1</sup>

The short-tailed and long-tailed parrots are named in the Mexican picture writings in the series of the 13 birds, which to the Mexicans symbolized the 13 stations of the sky and the 13 hours of the day. The first, the short-tailed parrot, stands at the thirteenth place (Fig. 321); the macaw, at the eleventh (Fig. 323). The latter also played a part as sun bird, as fire bird, as likeness of fire (Figs. 325-328). Its long red feathers with blue tips are called by the Mexicans *cuecalin*, "flame."

/553/ The birds of the thirteenth and eleventh place (Figs. 321, 323) are rather conventional. According to the idea of color, which I mentioned above, the shorttailed green parrot is always yellow. /554/ The much curved beak is usually plainly indicated (see especially Figs. 322, 324). The reticulation of the leg is especially distinct in Figs. 323, 325. The characteristic naked ring encircling the eye is very strongly marked in the well

executed picture from the Codex Oxford,<sup>2</sup> Fig. 324, and in Figs. 326-328. The pairing of the toes, one of the chief marks of the order, is given only in the picture from the Codex Oxford (Fig. 324).

Among the Maya, who for the greater part were inhabitants of the Tierra caliente, parrots, especially the fire bird, the macaw, naturally played an important part. Of Izamal (strictly, Itzmal), a city in Yucatan /555/ that took its name from a god. Itzmatul (whose temple stood in the south), it is reported that the chief temple, on the north side of the town, was devoted to the god Kinich kak-mó, i.e. "The sun's face, the fire macaw," who descended at noon-" in view of all a fire descended at noon"-to bum the sacrifice on the altar-"as the macaw flies down, with its brilliant plumage of different colors."<sup>3</sup>

The same macaw god is named in the Books of Chilam Balam as lord of *katun* (the time period) 6 *ahau*. He should accordingly also be found in the Codex Pérez. Unfortunately, the page that treated of that *katun* is wanting there. I believe I recognize the glyph of this god in the second series of gods, which are represented-not in full figure, it is true, but in glyph-on pages 46-50, which deal with the 13 x 20 Venus periods. This subject will be discussed later.

A fine picture of the macaw is on page 16a of the Dresden, in the first of two series (Figs. 329-330), in which birds or other demons are pictured squatting on the necks of women, and which have a certain correspondence to those in the series of Codex Tro 29\*, 28\*a (Fig. 331). The macaw occurs in Fig. 329 at the third place, and in Fig. 331 at the first place. The strong, curved beak, the naked ring divided into sections and encircling the eye, and the long stiff, drooping tail feathers are distinctly drawn.

Another picture, persistently misunderstood by Forstemann, Schellhas, and Brinton, and explained as a tortoise, /556/ is the macaw demon (a man with a macaw head), on page 40b of the Dresden, with torches in his hands and below a celestial shield on which the glyphic element *kin*, "sun," is introduced (Fig. 332). That this is really the macaw I have always stoutly maintained in



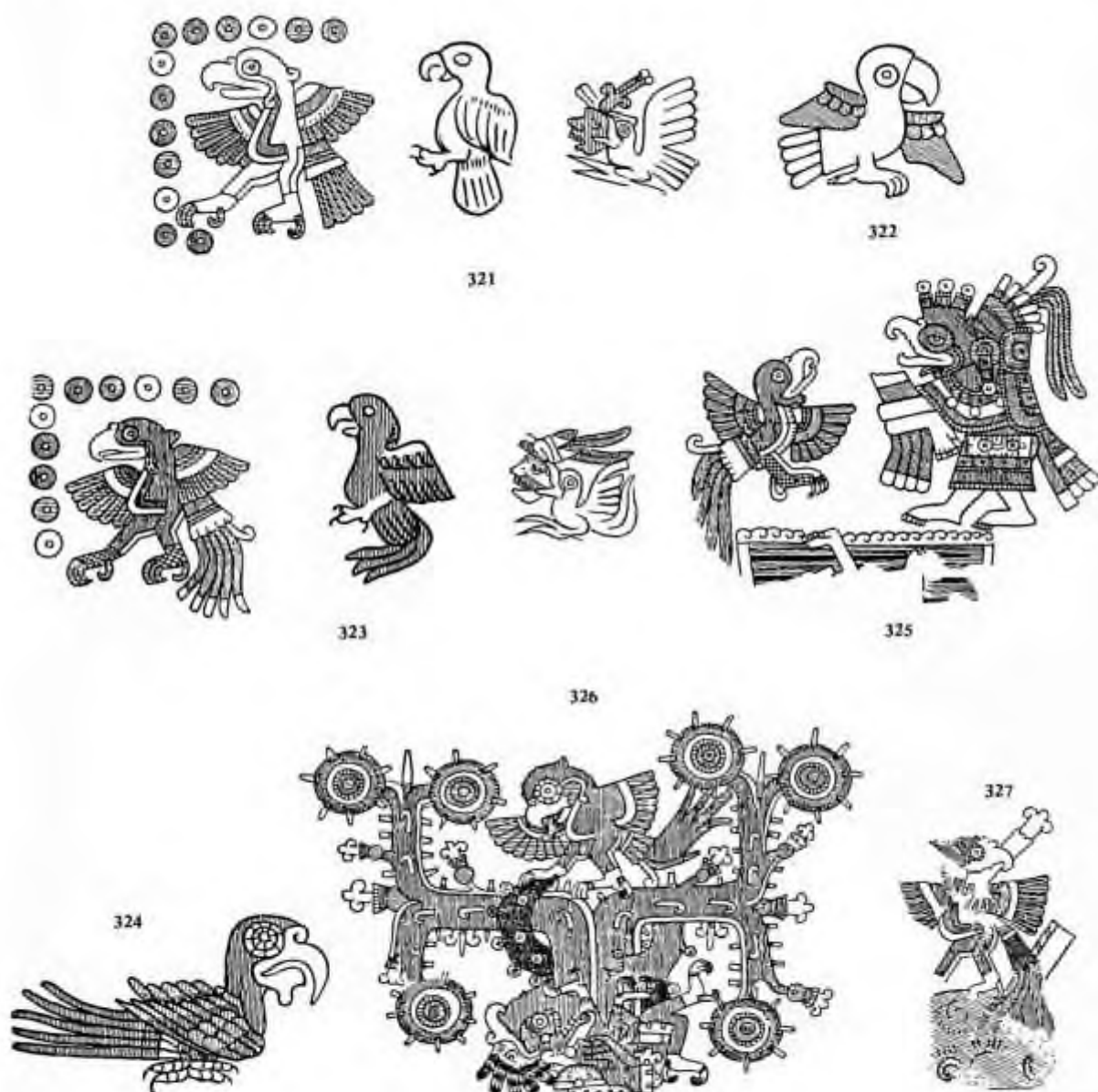


Fig. 321. The parrot, thirteenth of the 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Fig. 322. The parrot. Nuttall 71.

Fig. 323. The macaw, eleventh of the 13 birds, the lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Fig. 324. The macaw. Oxford 7.

Fig. 325. Chalchiuh coxcoxtli (the water goddess) and a macaw. Borgia 23.

Fig. 326. The macaw, on the tree of the south. Borgia 52.

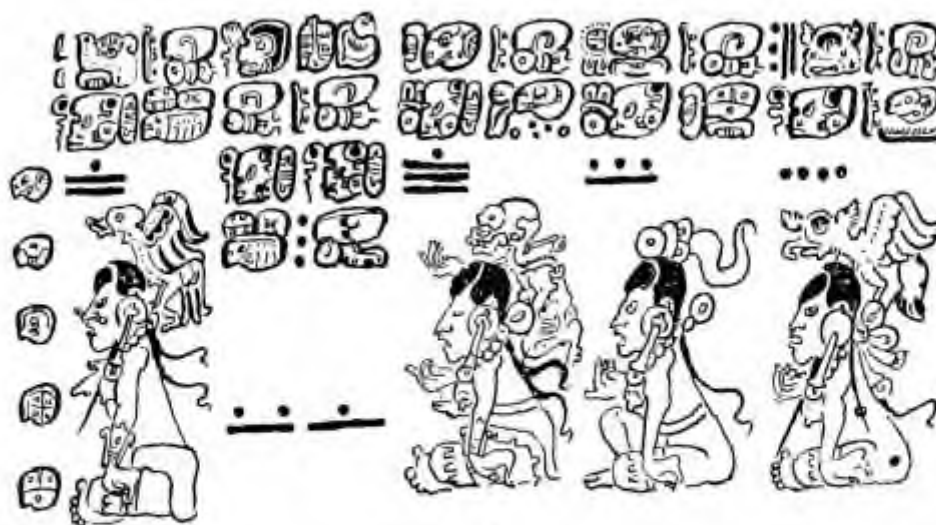
Fig. 327. The macaw, with the torn-out arm of Ce xochitl in its beak, symbol of the day "thirteen reed." Borgia 2.



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Fig. 328. The macaw, symbol of the day "thirteen rain." Borgia 6.

Fig. 329. Squatting birds—moan, quetzal, macaw, eagle, vul-

ture, turkey. Dresden 16, 17c.

Fig. 330. Squatting birds—eagle, Ek chuuh, dog, death, Itzam-ná, moan. Dresden 17, 18b.

### Birds

letters to Forstemann; it is clearly proved by the parallel figure (Fig. 333) of the Codex Tro.<sup>4</sup>

/557/ In both places, on page 16c and page 40b of the Dresden, the macaw is also denoted glyphically, but not by the same glyph. On page 16c the two glyphs (Fig. 334) belong to the macaw of which the first, the principal, as it seems, is intended to symbolize objects emitting light, or rays and feathers, while the second is a well known accompanying glyph of death divinities. On page 40b the macaw is symbolized by two glyphs (Fig. 335). The first has as main /558/ element the head of the bird itself, with the naked ring around the eyes; the other, the elements of the sun (*kin*), the jewel (*tun*), and the *cauac* element.

The essential elements of the leading glyph of page 16c (Fig. 334) I believe may also be recognized in the glyph (Fig. 336), nineteenth in the series of 20 glyphs of gods represented on the Dresden, pages 46-50, in connection with the 13 x 20 Venus periods. The same glyph also occurs on page 19b of the Dresden (Fig. 337) and is accompanied there by another, which is a regular accompanying glyph of the vulture. I am more inclined to recognize the glyph, Fig. 336, as a form of the macaw glyph, since it is connected with the numeral seven, for Vukub Cakix, "*Seven arara*," is the name given to the macaw in the mythology of the Guatemalan races.

Another picture of the macaw, distinct in spite of the poor drawing, is the first bird figure in Fig. 338 (Tro 31c). /559/ This series evidently contains the birds that belong to the maize gods. The number, 4, indicates that here again the maize god is intended to be represented in the four cardinal points or in the four years, although the cardinal points here are not indicated in the groups of glyphs above them.

Since in the Madrid manuscript the four years usually begin with *cauac*, we may assume the same to be true in Fig. 338; in other words, the series here is a parallel to the other, given above (p. 183, Fig. 138). Then these first years are poor maize years, and the macaw here must denote fire, sun, too much sun, i.e. drought. The glyph of the sun god Kin ich ahau is given as the glyph of the macaw (first glyph in the first group, Fig. 338).

/560/ In view of the obvious relationship that exists here between the birds and the maize god, we may also connect with them the bird heads drawn as frontlet or middle piece of a wreath of flowers encircling the head ornament of the maize god. And Stempell is therefore right when he explains as parrots the bird head with smooth crown, worn on the forehead of the maize god on page 11b of the Dresden (Fig. 339, second figure), and by the young god on pages 11a, 12b, of the Dresden, who is very likely the maize god (Fig. 340, third

and fourth figures), and finally, also by the god with the long stripe on his face on page 14b of the Dresden (occurring elsewhere as a death god), where he appears as maize bringer (Fig. 341, third figure).

The peculiar eye ring identifies as a macaw the bird in the lower section of Fig. 342, above the dead maize god sitting at the left below, on a stone. In this section is represented what was expected of the *ix* years, and these too were poor maize years. We shall also have to assume here that the macaw is intended to symbolize the too/561/ powerful sun, fire, and drought. In this picture it has a human forearm in its beak. The same thing also appears in the Borgia (Fig. 327). This doubtless refers to the tale, which we know from the Popol Vuh, the myth book of the Quiché, that the *arara*, shot at by the hero Hun ahpu (= Ce xochitl, "One flower" of the Mexicans) and brought down from the tree, tears off the hero's arm when he tries to seize it, and goes off with it in his beak.

A final picture of the macaw, to which Stempell has also correctly referred, is the bird that, on Codex Tro 23\*a (Fig. 343), is the head /562/ dress of an old bearded god who brings a woman as captive. The beard permits the assumption that he is intended for the sun god.

### 18. The Quetzal Bird

The quetzal, *Pharomacrus mocinno* (Pablo de la Llave),<sup>5</sup> gets its name (Mexican *quetzal-tototl*) from its brilliant long tail /563/ feathers of metallic golden sheen, which, stuck in upright (*quetzalli*), were worn as a costly ornament, as a feather tuft, or as the upper part of feather crowns.

The Zapotecs seem to have adopted the Mexican word, for in the vocabulary of Juan de Córdoba the word *quecáha* is used for the long tail feathers-said to be of the macaw, it is true-but as synonymous with *xillamani*, "ornamental feather bird, dance ornamental bird." In the Maya languages it is *k'u* or *k'u'k*, *k'u'kum-a* word that probably had an etymology similar to the Mexican *quetzalli*, for *kuk* means, strictly, "highly prized." The word *cucuitz* given by Stempell /564/ after de Rosny should be written with the first part as a guttural and divided into *kuk-uitz*, "mountain quetzal."

In the series of 13 birds, which symbolized the 13 stations of the sky and the 13 hours of the day, the quetzal is given as the twelfth (Fig. 344). It denoted to them ornamentation, costliness, ornament of being, and is therefore drawn in the cardinal points which, according to the belief of the Mexicans, guaranteed wealth and abundance, fruitfulness, etc. On the tree of the east in the house of the sun (Figs. 346, 347) and on the tree of the center, i.e. in the region of the fire god, lord of wealth



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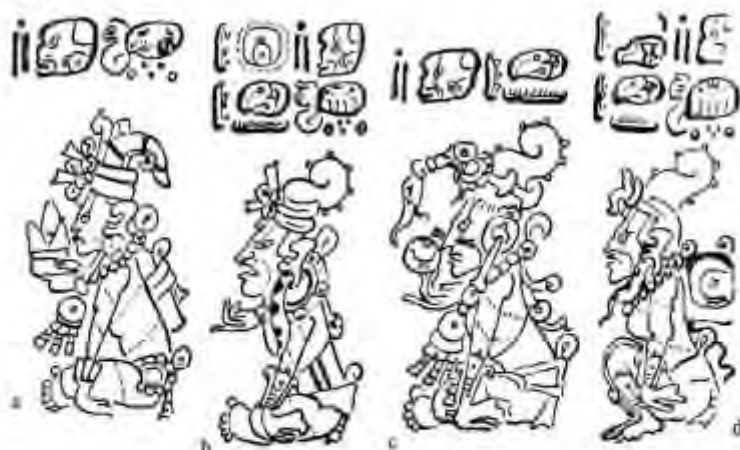
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Fig. 331. 1 eagle. *moa* Figs. 332-332. Dresden Figs. 334-334. 1

Fig. 339a. The god with the *kan* sign, the maize god. b. with a parrot. c. with a *coxcoxilli*. d. with a quetzal in head ornament. Dresden 9a, 11b, 11c, 13b.

Fig. 340a. The young god. b. with a *coxcoxilli*. c, d. with a par-

rot in head ornament. Dresden 6a, 7c, 11a, 12b.

Fig. 341a, b, d. The god with halved face. c. with a parrot in head dress. Dresden 10b, 10c, 14b, 17c.

Fig. 342. The ix years. Tro 20.

(Fig. 348). We see it also represented with the moon goddess, holding a peculiar crescent-shaped black object in its claws (Fig. 345).

And with a predilection it is pictured flying down to the bowl of sacrificial blood in the temple (Figs. 349-351), for this sacrificial blood is also a costly thing. Finally, we also meet the quetzal bird among the very diverse and polymorphan objects worn by warriors as special insignia in the dance and probably also in the field (Figs. 352, 353).

In all these cases the quetzal is sufficiently distinguished by its dark green color, feather hood, and long waving tail feathers, while beak, claws, etc., as a rule, /565/ are rather conventionalized, and could belong as well to an eagle or other bird of prey.

In the Maya area representations of this highly ornamental bird are naturally not lacking. It is in complete agreement with those in the Borgia (Figs. 346, 348) when, on the altar tablets of the so-called temples of the Cross and the Foliated Cross, at Palenque, the quetzal is pictured on the so-called "cross," i.e. the tree symbolizing a certain cardinal point or the sky in a certain direction (Fig. 354). Here it is given the head of the god of water, fruitfulness, and prosperity, who coincides with the Yucatec god Ah bolon tz'acab.

In the Maya manuscripts the quetzal appears in all the places where series of birds are pictured. Thus in Fig. 329, at the second place (drawn separately in Fig. 355), and in Fig. 331, also at the second place (see Fig. 356). In the series, Fig. 338, where the birds of the maize god are pictured, the quetzal is at the third place (Fig. 357). Again we meet it on Tro 3\*c (Fig. 359) on the head of the maize god, on Tro 13\*b (Fig. 360) in a series that seems to be connected with the carving of deity heads, and finally (Fig. 361), in the lower section of Tro 21, where the *muluc* years distinguished by special fruitfulness are illustrated.

/566/ I think I recognize the picture of the quetzal as back device, with the old god holding a snake in his hand and wearing a jewel in his head ornament, who begins the series of 20 gods of the Dresden and who, according to my idea, corresponds to the true Kukulcan, the god of the "quetzal-feather serpent," who corresponds to the Mexican Quetzalcoatl. Again, the quetzal is undoubtedly used on Codex Cortés 36a as symbol, insignia, or accompaniment of a god of the cacao fruit (Fig. 363).

Finally, the tail of the quetzal forms the end of the head ornament of the god with the *kan* sign, the maize god (Fig. 364), who at the same time also occasionally wears the head of a quetzal in the wreath of flowers surrounding his head ornament, as frontlet or middle piece

(Fig. 364, fourth illustration).

As in the Mexican manuscripts, the green color (Fig. 357), feather crest, /567/ and long waving tail feathers here too permit the quetzal to be distinctly recognized, in spite of all other conventionalizations in the drawing.

#### 19. A Blue or Green Quetzal-like Bird

At different places in the Nuttall a bird appears, sometimes with blue, and again with green plumage, with a quetzal-like feather hood and double tail—a turkey-like tail of black feathers with white tips and a quetzal-like tail consisting of long waving feathers (see Figs. 366-369). I do not know whether a special animal or a mixed form is intended by these pictures, or whether—and I think this more probable—the turkey-like shorter tail is intended to represent merely the dark-colored stiff under feathers of the quetzal tail, which are concealed by the long waving green plumes. On page 71 of the Nuttall a man (Fig. 369) holds a bird of this kind by its long waving feathers, separating them or tearing them out(?).

#### 20. The Red-Crested Woodpecker

/568/ Likewise in the Nuttall, pages 71, 74, a bird is represented with a dark body, white breast, black and white striped wings, red feather hood, black and white pointed tail feathers, and long pointed bill, white only on page 71 (Fig. 370)—probably incorrectly—and bent at the end, but on page 74 (Fig. 371) the beak is dark-colored, long, strong and straight, pointed and without any hook at the end.

We find this combination of attributes in the Central American species of woodpeckers, the chief representative of which has already been described by Dr. Hernández:<sup>6</sup>

*...colore nigro, sed candidis plumis maculato, ac praecipue circa caudam, postremas alarum partes, rostrum ac ventrem, qui pene totus candidus esto*

...of black color, but mottled with white feathers, and especially around the tail, the wing-tips, the beak, and the breast, which is almost entirely white.

The two pictures, Figs. 370, 371, it seems to me, should be explained, therefore, as a species of woodpecker, although this bird is drawn here neither clinging to a tree nor with the toes in pairs, which is distinctive of this class of birds.

The woodpecker was called *quauhtotopotli* by the Mexicans, "bird that bores into the tree." The Zapotecs called it *xijta, mani xijta piquijñi*. I know no Maya name.

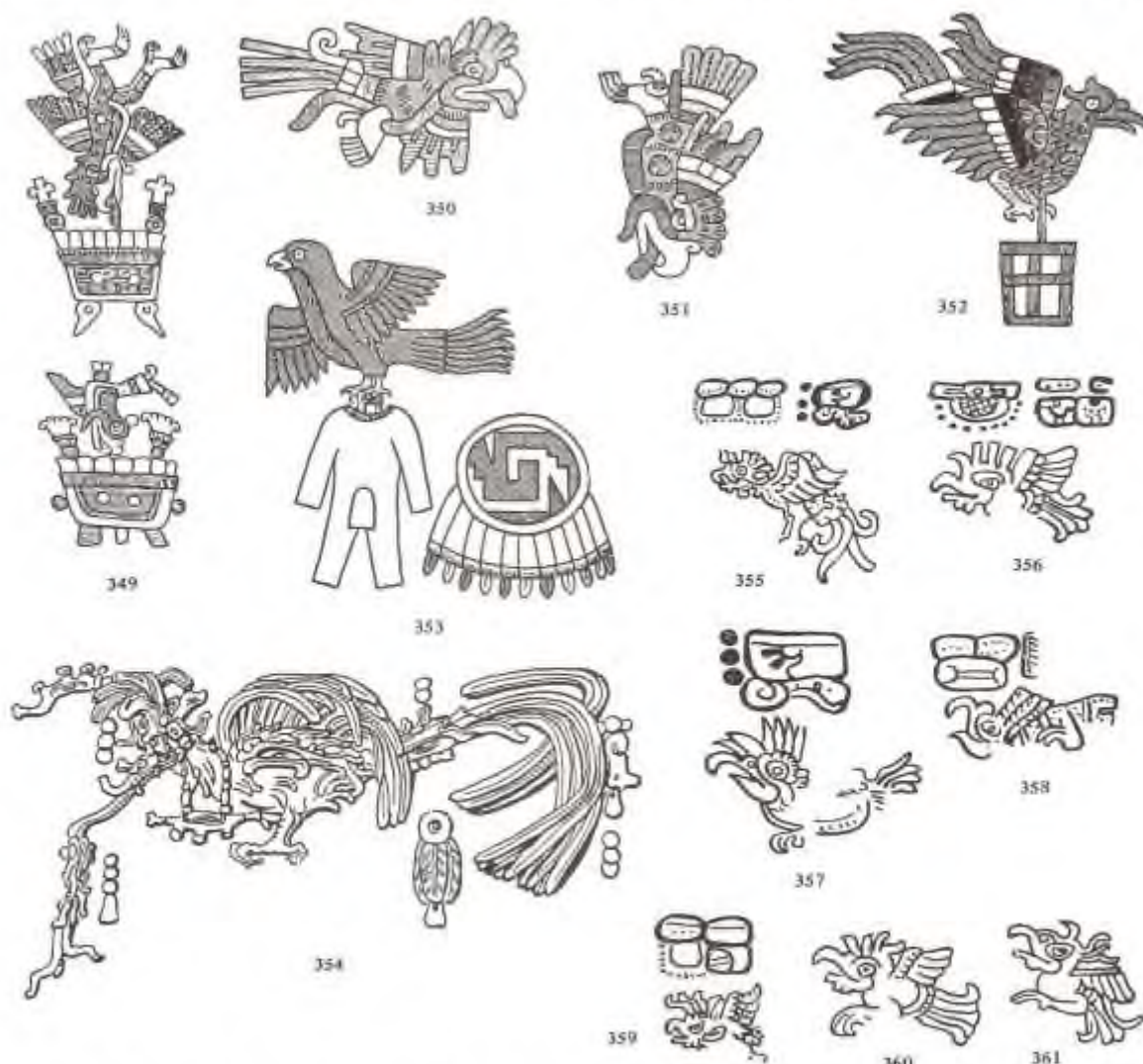


Fig. 349a. The quetzal, descending to a sacrifice. Borgia 3. b. symbol of the day 6 flint. Bologna 3.

Fig. 350. The quetzal, with the goddess Four rabbit, female companion of the red god, Nottali 33.

Fig. 351. The quetzal, flying down to a temple. Nuttall 9.

Fig. 352. *quetzalototol*, a warrior insignia. Sahagún ms., Academia de la Historia.

Fig. 353. *quetzalototol* equipment. Tribute of the Tuchtepec

group. Mendoza 48, 24.

Fig. 354. The quetzal, on a tree. Altar tablet of the Temple of the Foliated Cross, Palenque.

Figs. 355-356. The quetzal. Dresden 16c, Tro 19\*c.

Figs. 357-358. The quetzal and ? The bird of the maize god. Tro 31c.

Figs. 359-361. The quetzal: Fig. 359. Tro 3\*c. Fig. 360. Tro 13\*b; Fig. 361. Tro 20b.

Fig. 343. The captors in the five directions. Tro 24\*, 23\*a.  
Fig. 344. The quetzal, twelfth of the 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.  
Fig. 345. The quetzal, with the moon goddess, symbol of the

sixth day sign. Borgia 11.

Figs. 346-347. The quetzal, on the tree of the east. Borgia 49, Vaticanus B 17.

Fig. 348. The quetzal, on the tree of the center. Borgia 53.



neck, because at this place (Nuttall 10) the hummingbird stands as symbol or heraldic bird of a female deity of spinning and weaving.

As a black hummingbird Quetzalcoatl appears as the planet Venus on Borgia page 44, on the tree of the middle in the fourth (south) region of the underworld (Fig. 385). Here, however, the hummingbird is distinctly connected with the winged insects given above it.

Perhaps the black bird with the hummingbird bill, from the Nuttall, may also be explained as a hummingbird (Fig. 386).

Does the hummingbird also occur in the Maya manuscripts?

On pages 5b, 6b, of the Dresden, in connection with the sacred series of the 20 divinities (pages 4-10a) and

## Birds

### 21. The Hummingbird

The hummingbird is called *uitzitzilin* in the Mexican, and the following special kinds were distinguished according to color: *quetzaluitzilin*, with dark, metallic green back and tail, *tleuitzilin*, with copper-red throat shining like glowing coals, and others. The Zapotecs called the hummingbird *piquijñi peyo*, *piquijñi peyo-láo*.

Two kinds of hummingbird are named: a dark-blue as the first, and a green as the second, at the beginning of the 13 birds, the lords of the 13 stations of the sky, and the 13 hours of the day (Figs. 372, 373). With different gods, who in their head ornament wear the bone dagger, the sign of castigation, and with whom the blood dripping from the bone dagger is expressed by the picture of a flower or a chain of feathers and flowers, the hummingbird is drawn hanging with its bill in the flower, /569/ to "complete" the flower, as we might think (Figs. 374-376).

Again, the hummingbird appears in the glyph of different places containing in their name that of the hummingbird (Fig. 377), and lastly, on the tree of the west, as representative of the cardinal point west (Figs. 378, 379).

Of these pictures, those of the Tonalamatl of the Aubin Collection (Figs. 372, 373, third figures) are discarded as being drawn with too little character, and also the very conventionalized bird form, Fig. 379, appearing like an eagle, which only by its dark color indicates that it may be homologous to the hummingbird (Fig. 378), which in the parallel places is put on the tree of the west (for the rest of these pictures, the hummingbird is represented not true to nature, but glyphically, but it may be recognized by its blue or green color and long pointed bill, which in the Codex Borgia group and in the Nuttall shows no /570/ division into upper and lower bill. In Fig. 384 the hummingbird has a spindle at its

of the six fire gods named with them, but only in glyph (pages 4b, 5b), with which the first main section of this manuscript begins, there is a series of four deities (Fig. 388). They are:

1. The god with a black line bordering the corner of the eye, whom Schellhas confounds with the god with the lengthwise stripe on his face, the fourth of the series;
2. The death god Uac mitun ahau;
3. The god of the west, Itzamná;
4. The god with the lengthwise stripe on his face.

All four are represented in the same act-drilling. The object or the place in which they are drilling is the *manik* sign, and this is the second glyph of the group of four placed above each figure.

The drilling itself is designated by the first glyph in each group, and the head of the dog, or lightning animal, that forms one element of this glyph shows clearly that it is intended to treat of fire drilling. Glyphs 3 and 4 /572/ of each group are those of the god drawn below in full figure. The series in Fig. 387a,b are quite analogous representations, which are also added in the Tro to the first of an entire group of representations-the series given above on p. 216, Fig. 307, with which the so-called "hunters' calendar" begins.

Here the object of the drilling is different-in Fig. 387b it is a stone-but this object drilled is again named in second place in the groups of glyphs. And the first glyph cannot conceal its relationship with the first glyph of the group in Fig. 387: it too denotes drilling.

In the Dresden the series in Fig. 388 is followed by the analogous series in Fig. 389. The four gods of these two series correspond: the death god is second and the god of the west, Itzamná, third; the second glyph in the groups of Fig. 389 is like the second glyph in Fig. 388, /573/ but the first glyph is different and, indeed, as Fig. 395b taken from the Cortés proves, is the principal glyph of a curious bird figure. It is distinguished by a small circle surrounded by dots on the side of the bill about in the middle, and which we also see pictured in the Dresden Codex (Fig. 389) with the last of the four gods descending from above and apparently in the act of sinking its bill into the god's breast.

The series in Fig. 395b also corresponds so far to the series of Fig. 389, and also in Fig. 395b one of the four glyphs of each group is the *manik* element, but here it is connected with the elements of the four colors: *chac*, red, *zac*, white, *ek*, black, *kan*, yellow-corresponding to the four cardinal points east, north, west, south, named by the first glyph in each of the four groups (in one case, the second).

According to the position and the general construction of the series in Fig. 389, I must assume that it is allied



Fig. 362. The old god, the first of the 20 gods, Dresden 4a.

Fig. 363. The quetzal. Cortés 36a.

Fig. 364. The god with the *kan* sign, the maize god. Dresden 9a, 11b, 11c, 13b.

Fig. 365. The god with the *kan* sign, the maize god. Tro 30c,

29d, 29d.

Figs. 366-368. The blue bird with a turkey as an accessory(?). Nuttall 44, 46, 70 (with gods One Reed and Six Water).

Fig. 369. A similar bird. Nuttall 71.

Figs. 370-371. The red-crested woodpecker. Nuttall 71, 74.



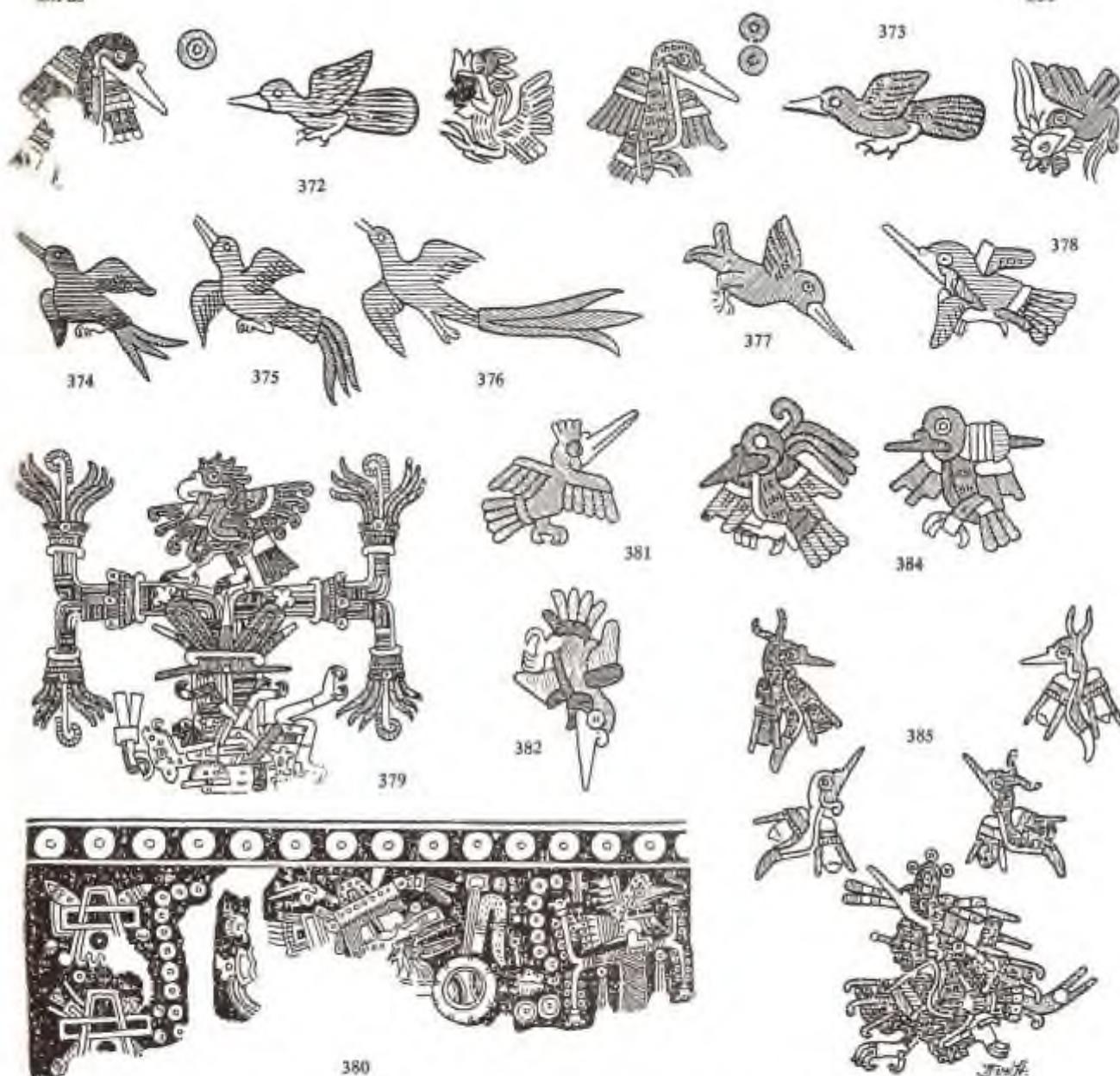


Fig. 372. The blue hummingbird, first of the 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Fig. 373. The green hummingbird, second of the 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Figs. 374-376. Hummingbirds sipping at flowers in the head ornament of Quetzalcoatl and the pulque god Poctecatl. Magliabecchiano 61, 62, 53.

Fig. 377. Glyph of Huitzilopochtli. Mendoza 20, 8.

Figs. 378-379. The hummingbird, on the tree of the west. Vaticanus B 18, Borgia 51.

Fig. 380. Quetzalcoatl and the hummingbird, on the tree of the west(?). Palating on the north side of the court adjoining Palace I, Mitla.

Fig. 381. The hummingbird, on the staff of the fifth of 6 sky travelers. Fajóvsky Mayer 37.

Figs. 382-383. The hummingbird. Nuttall 62, 41.

Fig. 384. The hummingbird (with a spindle at the neck). Nuttall 10.

Fig. 385. Quetzalcoatl and the planet Venus as a hummingbird, on the tree of the center in the southern region of the underworld. Borgia 44.

to that in Fig. 388, that in the bird with the pointed bill it too illustrates drilling, but not of tire, as does Fig. 388, but of a different kind. As to what, I would like to cite the boring out of the eye, which in the Mexican picture writings illustrates sacrifice and castigation (Fig. 390).

As I said, a special mark on the bird, the main glyph of which is the common glyph in this series, consists of a small circle surrounded by dots on the side /574/ of the bill. Now indeed not a small circle, but the sign *kak*, "tire," similar to a circle and homologous to a spiral, surrounded by a circle of dots, appears as the characteristic glyphic element in the representation of castigation (Fig. 397); and we see in the same picture, Fig. 397, the two peculiar leaves on the left, or right, of the glyph of this bird, which represents castigation, as the leaves on which the dripping blood was caught.

But that the bird under discussion (in Fig. 389 it is given with the fourth figure) is in fact connected with sacrifice and boring out of the eye as a sign of sacrifice is shown by Fig. 391, from the Tro, in which are illustrated the pre-New Year ceremonies for the *cauac* year and the fate of those years. Here in the upper section we see the penitent sitting in a dark field /575/ bordered by pedunculated eyes with eyes bored out-a parallel to the well known picture in the Codex Borgia (Fig. 390). But below this penitent with bored-out eye, perched on the offering in Fig. 391, is the bird with the pointed bill, distinguished by a dotted circle in the middle.

Likewise, on Dresden 35a, which is the right side of the sacrificial picture (page 34a), we see this bird sitting (Fig. 393). Not exactly a sacrificial rite, but at all events a sort of festive celebration, is also pictured on the page of the Perez devoted to *katun 13 ahau* (Fig. 392). Here the bird with the long pointed bill, somewhat curved at the point and with small circle bordered by dots on the middle of it, is exactly between the two gods, the maize deity and the young god sitting opposite on the celestial throne. For this scene, in general, like that on the other pages of this series (the god of the period brings the idol of water and fruitfulness), is shown to be a festive ceremony by the fact that the god sitting on the right, on the celestial throne, is represented with the drum under his arm and in his hand a rattle (with a bird head at the lower end of the handle).

The connection between this bird and-if not /576/ exactly sacrifice and castigation-yet the idea of pointing, drilling, is expressed in Fig. 395a, which occurs directly above that with our bird (Fig. 395b) in the Cortés. Here we see two gods-of maize and death-both holding a kind of stick, which consists of water with snail shells.<sup>7</sup> The point of the death god's staff is of flint and that of

the maize god is a blue bird with pointed bill.

What kind of a bird can be intended by these pictures? Clearly only one with a specially pointed bill, and it is probably the hummingbird. As a matter of fact, another familiar picture of sacrifice and sacrificial blood is the flower, and the hummingbird belongs to the flower. For in pictures of Quetzalcoatl (Fig. 399) we see the flower hanging from the bone dagger and the hummingbird with its bill sticking in it; this does not mean, as I explained above, that the hummingbird floats from flower to flower, but that the hummingbird, which is the castigation, the wounding instrument, belongs to the flower, i.e. to blood, sacrifice.

Actually, the pictures that the Maya manuscripts give of the bird, which is the borer, suggest the idea of the hummingbird. What Stempell designates in the pictures, Fig. 391, 393, as a notched tail, like that of a swallow, and which prompted him to explain some of these birds (Figs. 391, 393) as terns, and others (Figs. 392, 394, and the series /577/ in Fig. 395b) as pelicans, are the tail sections or the long forked tail pendants that many hummingbirds display and which, indeed, such drawings as those above of Figs. 377, 374-376, attempt to illustrate. A striking proof, however, that the bird which the Maya manuscripts represent with a circle of dots on the bill, is actually a hummingbird is given in Fig. 394 from the Cortés, where this bird hangs with its pointed bill in a flower.

As a special picture of this bird I cite Fig. 396, from the Cortés, where its bill is in a vertical position, and it is in a house of celestial shields and filled with rain. The hummingbird is the bird that appears in the rainy season. The Mexicans believed that it died in the dry season, attached itself by its bill to the bark of a tree, where it hung until the beginning of the rainy season, when it came to life once more.<sup>8</sup>

It should therefore be assumed that the bird with the blue Chac (rain-god) painting, spitting water, i.e. bringing rain (Fig. 396\*), which on Cortés 19b flies down from above, is also intended for the hummingbird. Yet this is a far-fetched assumption, for this bird /578/ in fact looks more like a pelican-a "bird grandmother" (as the Russians say). But nothing is recorded of the pelican having such a mythical role.

But if the birds of Figs. 389-396 are in fact intended for hummingbirds, and the hummingbird is the representative of sacrifice and castigation, then we also understand why the first god in the series, Fig. 389, holds a flower, and how it happens that the bird-headed personages of the series in Fig. 395 hold a ring of bells in their hands, i.e. they are making music. Music belongs to sacrifice, as I have remarked in connection with Fig. 392.





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Fig. 386. The black bird with hummingbird bill, Nuttall 74.  
 Fig. 387a. The black god, the sun god, Itzamná, and a vulture, drilling. Tro 19b. b. The black god, the death god, Itzamná, and the god with a lengthwise stripe on his face, drilling into stone.  
 Fig. 388. The god with a black line at the corner of his eye, Uac mitun ahau, Itzamná, and the god with a lengthwise stripe

on his face, drilling fire, Dresden 4b, 5b.  
 Fig. 389. The maize god, the death god, Itzamná, and the old god with *chlecchan* spot, the borers, the gods of castigation, Dresden 5b, 6b.  
 Fig. 390. Neçoliztli, "the castigation," and *chachluh atl*, "costly water (of castigation)." Borgia 10.





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b

Fig. 391a. The *cauac* years. Tro 23, b. the hummingbird, Tro 23a.

Fig. 392a. The hummingbird, with the maize god, lord of Katun 13 *ahau*. Pérez 3b, b. the hummingbird, Pérez 3b.

Fig. 393. The hummingbird, on an oblation. Dresden 35a.

Fig. 394. The hummingbird, in a flower, Cortés 23a.

Fig. 395a. Cortés 20c, b. celebrators of a feast, sacrificers. Cortés 20d, 21d.

The pleasing orchestra in the Dresden, /580/ page 34a, surrounds a pyramid on which the head of the sacrifice lies.

In conclusion, I add Fig. 398, a piece of the beautiful border, composed of vines with water lilies, which forms the lower edge of the relief full of figures covering the walls of Maudslay's Hall E, Chichen Itza. The bird with the long, pointed bill that, here, apparently, is plunging into the opened breast of a human flower, could-perhaps-also be intended for this bird of sacrifice and castigation, the hummingbird.

## 22. The Raven and Other Sparrow-like Birds

The Mexican name for the raven is *cacalotl*. The Zapatecs called it *mani piáque* or *peláo*. Among the Quiché it is called *hoh* and among the Cakchiquel, *koch*.

An unquestionable picture of the raven in the tribute list of the Codex Mendoza denotes Cacalomacan, a town situated in the plateau of Toluca (Fig. 400). In the Mexican picture writings of religious and astronomic content the raven seems to be wanting. Figure 401 (Codex Nuttall) might be considered rather as a toucan, owing to the huge bill, but this bird is clearly supposed to be wholly black, while in the case of the toucan sometimes the bill, and sometimes the breast feathers, are distinguished from the gleaming black of the rest of the body by brilliant colors.

On p. 188 I mentioned that I considered the series on Codex Tro 33d, 32d, 30-29b, 30-29c, 31, 30d (pp. 184, 186 above, Figs. 147-151) a representation of the discovery of maize, that therefore the black birds that occur in these series, and which I give separately here with their glyphs in Figs. 402-405, are in all probability intended for ravens, since in the myths of the discovery of maize, as preserved in the Maya legends of Guatemala, the raven plays an important part. On the grounds of purely zoological considerations, Stempell has reached the same conclusion.

I can add to the above pictures Fig. 406, which in the Codex Tro /582/ illustrates the *muluc* years, abounding in maize. The black bird, which at the right below holds the *kan* sign, i.e. maize, in its bill, extending it to the god or receiving it from him, I consider in like manner a picture of the raven. Characteristic of these birds, and what also distinguishes them from the other black birds of the manuscripts, is the round head, black like the body. All the rest is more or less conventionalized. If one is guided by the actual value of the drawing, one must assign the lower bird in Fig. 405 to a special species, since it is distinguished from the others by a longer, more pointed, and straighter bill and suggestion of loose head feathers.

Of other sparrow-like birds I mention first Fig. 407, which in the tribute list of the Mendoza denotes Molotlan, the name of a town. *Molotl* is the common name for sparrows or finches. The drawing, however, which shows a red hood distinctly, proves that the bird called by the Mexicans *quachichil*, "little red head," a bird belonging to the Tanagrina family, is intended to be pictured here.

The blue bird reproduced in Fig. 408, with the curious thick bill, from its color could correspond to the *Guiraca caerulea* or to the *Tanagra cana*.

I add a few pictures from the Codex Nuttall, evidently intended for definite species of birds. Especially pictures like Figs. 412-414 must really be distinctive, but with our lack of archaeological support we grope in darkness.

## 23. The Eagle

/583/ In the Mexican picture writings the eagle plays a prominent part. It is the fifteenth of the 20 day signs, and as symbol and emblem of the brave warriors, who were named *quauhtli ocelotl*, "eagle and jaguar," it is frequently depicted in representations of a secular character, in connection with sacrificial rites and in calendrical and mythological texts.

The Mexicans distinguished several different kinds of eagle, having specific names for some. The largest species, the eagle *kod* €~OX~V,9 *quauhtli*, which the Zapotecs call *picija*, *picija-tao*, is of a brownish color, according to Sahagún.

The neck and back feathers are described as shell-like, i.e. arched, erect, and therefore they are called by the special name *tapalcatl*, "sheds." This description, which also agrees throughout with the pictures, suggests the harpy eagle, *Trasaetus* in the modern designation, on which the elongated feathers at the back of the head, forming a long, wide, erect crest, are very conspicuous.

In addition to this large brown eagle Sahagún names one of an ash-gray or slate color, and particularly an eagle (*itzquauhtli*) displaying black transverse bands on a lighter ground, and said to be a large and powerful bird of prey. /585/. This is to be classed, I think, with the crested eagle, *Spizaetus* in the modern designation, on which the shading of the plumage, and the crest of the wings and tail feathers, are very plainly marked.

These two species may also be distinguished in the picture writings. A dark eagle of uniform color appears on Borgia page 71, in the Tonalamatl of the Borbonicus, and in the Aubin manuscript as the fifth of the 13 birds, lords of the hours of the day (Fig. 415). In the Aubin Tonalamatl it is depicted as the disguise of a god painted and decorated as a warrior (Fig. 415, third figure).

Another eagle, with striped plumage (Fig. 416), in the





Fig. 396. The hummingbird. Cortés 19b.

Fig. 396\*. Cortés 19b.

Fig. 397a. Castigator. Tro 18\*, 17\*a. b. Tro 18\*, 17\*b.

Fig. 398. The hummingbird, in a flower. Lower border of Hall

E, Chichen Itza. After Maudslay.

Fig. 399a,b. Quetzalcoatl, the wind god. Magliabecchiano XIII, 3, ff. 61, 62.





Fig. 400. The raven. Glyph of Cacalomacan (plateau of Toluca). Mendoza 35, 8.

Fig. 401. The raven? Nuttall 48.

Figs. 402-405. The raven, finder of the maize fruit. Tro 29b, 33d, 29c, 31d.

Fig. 406. The *muluc* years. Tro 21.

Fig. 407. The fire finch (*quachichil*). Glyph of Molotlan (in Quauhnaoac district). Mendoza 24, 8.

Fig. 408. The blue sparrow? Nuttall 73.

Fig. 409. The blue bird. Nuttall 42.

Figs. 410-411. A red bird and a black bird. Nuttall 65, 62.

Fig. 412. A red long-billed bird. Nuttall.

Figs. 413-414. A black long-billed bird, Nuttall 69, 47.

Fig. 415. The eagle (*quauhli*), fifth of 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.



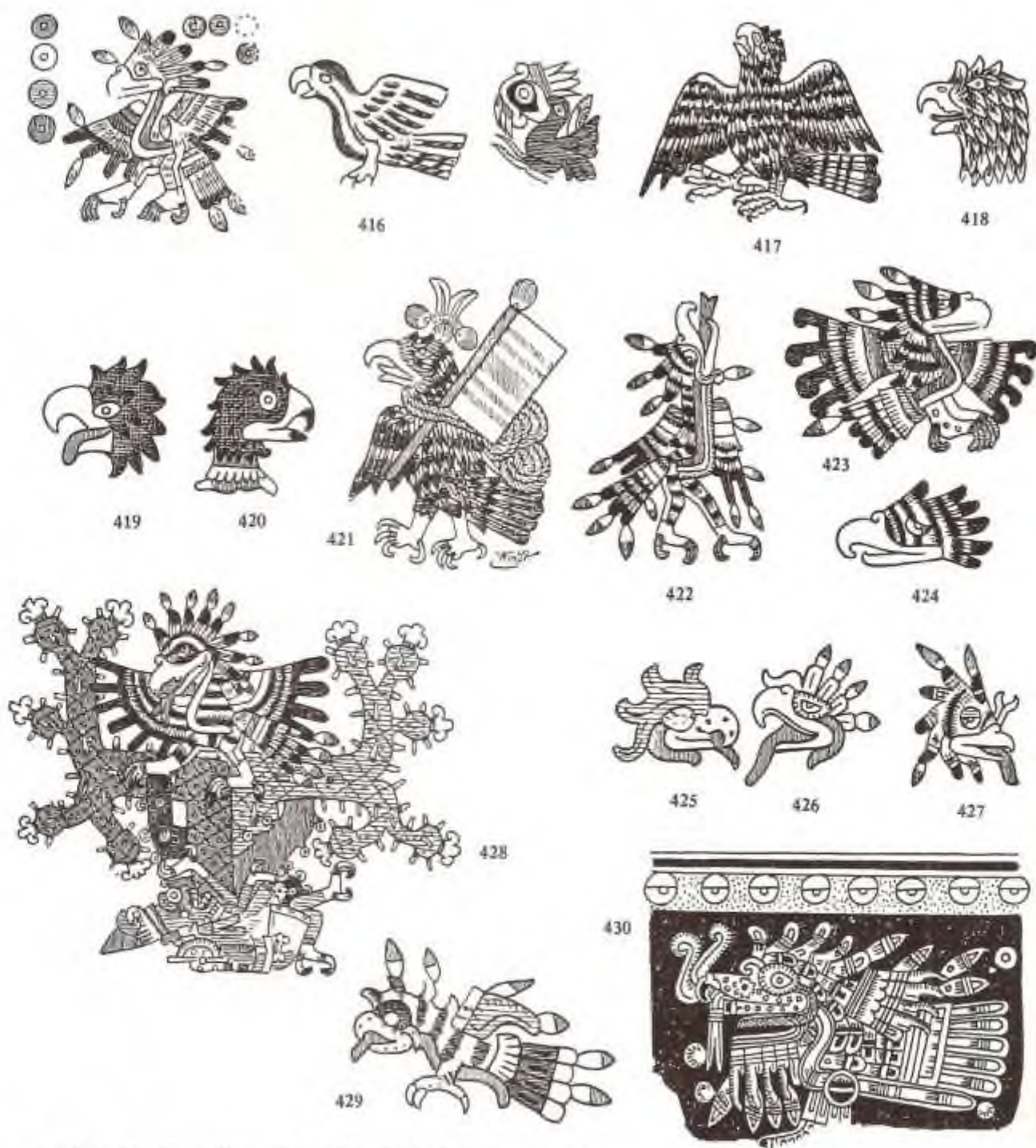


Fig. 416. A striped eagle (*itzquauhtli*), eighth of 13 birds, lords of the hours of the day, Borgia 71, Borbonicus, Aubin Tonalamatl.

Figs. 417-420. *quauhtli*, "eagle," the fifteenth day sign. Magliabecchiano XIII, 3, f. 6 verso, f. 13, Aubin Tonalamatl 20, Telleriano-Remensis 18.

Fig. 421. The eagle, symbol of the warrior, Borbonicus 11.

Figs. 422-424. The eagle (*quauhtli*), fifteenth day sign. Borgia

11, 19, 3.

Figs. 425-427. The eagle (*quauhtli*). Vaticanus B 4, 83, Bologna 7.

Figs. 428-429. The eagle, on the tree of the north. Borgia 50, Vaticanus B 17.

Fig. 430. The eagle, symbol of the warrior. Painting on the west side of the court adjacent to Palace I, Mitla.

Tonalamatl of the Aubin manuscript as the disguise of the rain god (Fig. 416, third figure), is the eighth of the 13 birds, lords of the hours of the day. /586/ That the latter in contrast to the former \s intended for the *itz.quauhtli* of Sahagún and De. Hernández is distinctly indicated by the fact that, in the Aubin Tonalamatl (Fig. 416, third figure), there is a stone knife with the bird, which is lacking in Fig. 415.

In the manuscripts belonging to the Mexican area proper the eagle is brown, and in some pictures more or less of one color (Figs. 417-421). In other manuscripts, however, especially the entire Borgia group and in part also in the Nuttall, the eagle has white and black stripes, corresponding better, therefore, to the *Spizaetus* markings (Figs. 422-436).

In the legends we read that in primeval time, when the gods Nanauatzin and Tecciztecatl plunged into the fire in order /587/ to rise to the sky later as sun and moon, the eagle and the jaguar leaped after them. The eagle was scorched all over, hence its plumage is entirely black (or striped with black) and burnt; but the jaguar was only singed in places, hence its skin is only marked with black spots. The erect feather crest is always distinctly drawn.

A difference exists, however, since it is painted sometimes in one color or with indeterminate stripes, sometimes with deep dark end spot, or is composed of only a few feathers, or assumes the form of a long comb of shell-like feathers curving forward (see especially Figs. 441, 444c).

Like the jaguar, the other member of the pair of brave animals /588/ that are the symbols and emblem of the warriors, the eagle is edged with stone knives on the outline of its head or entire body.

In some pictures of the Vaticanus (Fig. 426), but especially in the Codex Nuttall (Figs. 433-436, 439, 441), and also in Figs. 430, 444c, the ring of small feathers in the region of the eye is worthy of note. When this is connected with a uniform rounded and loose feathering of the head, as in Fig. 436, for example, it would seem as if the intention was not to draw an eagle but a screech owl. /589/ And yet even in the case of Fig. 436 there is no doubt that this head is intended for an eagle, since it stands there as the glyph of a day sign.

Figure 442c is equally curious. The subject treated is a god, Eight wind, the principal person of the first section of the Nuttall. This god always appears in eagle costume, as may be very clearly seen, e.g. in Fig. 442a,b. In Fig. 442c, however, the bird's head (under which the face of the god is half concealed), with round eye, large ring of feathers, and uniformly round, loose plumage, has so very much the appearance of an owl's head that I

am actually in doubt. If this were the only picture, I should not hesitate in pronouncing it an owl, and the more readily as the god might be represented here as a corpse. But pictures such as Fig. 436 render the decision rather difficult.

In Fig. 443a,b, the subject is the same god—a form of Xipe. In both figures an eagle is drawn, apparently descending, and in the first the god wears an eagle head mask. In Fig. 443b, however, the bird is plainly an eagle, with an erect feather crest, while in Fig. 443a the eagle again has the loose head plumage and ring of feathers, characteristics that suggest the owl. Likewise, it is true, the first bird, Fig. 443a, does not seem to be represented here exactly as dead, but yet to be connected with death. For the god here wears a blue nose ornament of special form, a familiar badge of the spirit of the dead warrior. It would not be impossible, therefore, that, according to the role in which the god is meant to be represented, the eagle alternates with the owl.

In the Maya languages the eagle is *cot*, *cóot*. But we no longer meet the name "eagle" for the fifteenth day sign, that of the eagle. In the Guatemalan languages the fifteenth /590/ day sign is named *tz'iquin*, "bird," but in Zapotec, *naa*, "mother," in Mayan, *men*, meaning "artist, skill in art, foundation, primal cause." Accordingly, nothing is to be seen of an eagle's head or an eagle's form in this Maya glyph (Fig. 445). It looks more like a sort of human face, with exposed teeth that are to be considered a rudiment of the lower jaw of a death's head, with dotted line running back from the corner of the eye and with suggestions of wrinkles.

In my first discussions of the Maya day signs<sup>10</sup> I referred to the fact that here in any case the aged goddess is intended to be represented in place of the eagle. This goddess is identical in character with Tonacacuatl Xochiquetzal, the patroness of arts and weaving and women skilled in art, who in the Vienna manuscript bears the date *ce quauhtli*, "one eagle," /591/ as name glyph. The name *naa*, "mother," that of the fifteenth Zapotec day sign, is a confirmation of this interpretation.

In the article mentioned above, the three forms of glyphs are also pictured, which I give here again in Figs. 446-452. All three contain the element *men* as their chief component. The first, Figs. 446-447, occurs repeatedly as a seat for the rain god Chac, and in an allied form also appears once as accompanying glyph of the jaguar. The second, Figs. 448-450, is a common glyph. We find it as accompanying glyph of the sun god and the death god and kindred divinities, with the dog, the vulture, and the macaw, and with the god with the lengthwise stripe on his face, etc.

The third glyph, Figs. 451, 452, with *been-kak* super-





Figs. 431-436. *quauhtli*, "eagle," fifteenth day sign. Nuttall 80, 66, 29, 8, 5, 3.

Figs. 437-441. *quauhtli*, "eagle." Nuttall 21, 9, 59, 65, 53.

Fig. 442a-c. The god *Chicuei eecatli*, "Eight wind," in the costume of an eagle, and an owl(?). Nuttall 1, 3, 2.



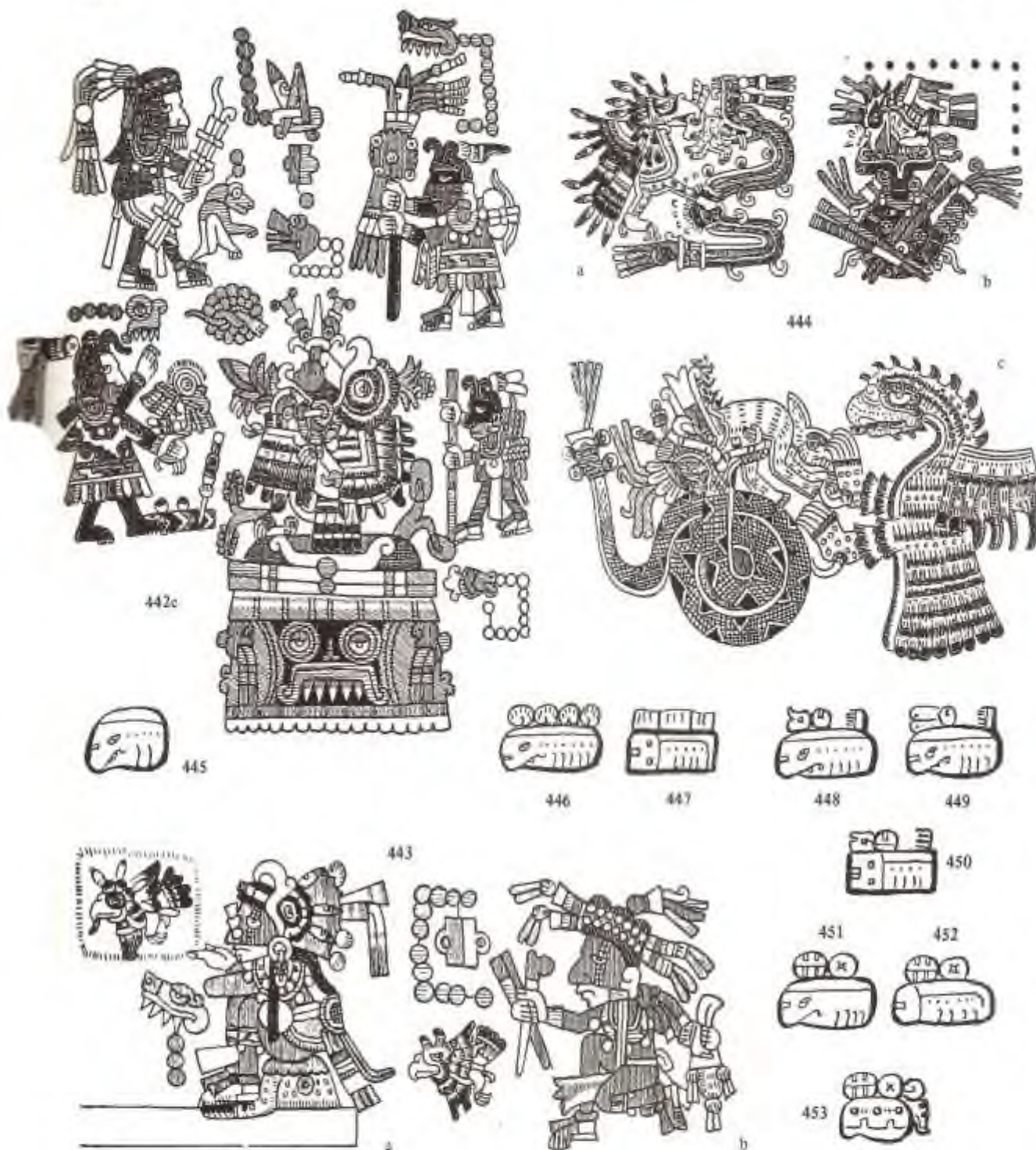


Fig. 443a,b. The eagle, Nipe's symbol. Nuttall 34, 35.  
 Fig. 444a-c. The eagle, clutching a rabbit or lizard (the moon),  
 the demon of the south. Borgia 52, Fejérváry Mayer 42, Vaticanus B 27.  
 Fig. 445. *men*, the fifteenth day sign.  
 Figs. 446-447. Seat of the rain god Chac and companion glyph  
 of the jaguar.  
 Figs. 448-450. Glyphs accompanying the vulture, the sun god,

the dog, the god with the lengthwise stripe on his face, the god  
 with bound eyes, a macaw, and the death god. Dresden 19b.  
 Figs. 451-452. Glyphs accompanying an eagle, the old goddess,  
 and Chac. Dresden 13a, 15b, 16b, 22b (Ek chuah on Dresden  
 17b).  
 Fig. 453. Glyph accompanying Ek chuah and the old god (the  
 moon god), Dresden 21b, 21c.

fix, is accompanying glyph with a bird whose picture and glyph I give below in Figs. 463, 464; it also occurs as accompanying glyph with the rain god Chac and also with the black god Ekchuah, alternating there with the allied(?) glyph, Fig. 453. I found this third glyph, Figs. 451, 452, or a very closely allied form, also among the glyphs of the altar tablets of Palenque.<sup>11</sup> This is the /592/ glyph in Fig. 454, which differs from the form of the manuscripts in containing, as bearer of the *been-kak* group, the hieroglyphs of Figs. 446, 447, instead of the single element *men*.

This glyph, however, has a homologue on the same Palenque altar tablets (Figs. 455-460, 462), in which the element *men*, or rather the form in Fig. 446, is replaced by a bird's head. This glyph at first glance suggests that of the bat (see p. 172 above, Fig. 49), which in fact it resembles in its style of composition. But the bat's head is as distinct in Fig. 49 as the bird's head here in Figs. 455-460. As may be seen plainly in some of the pictures, this bird has a feather crest and a short, sharply bent, and powerful beak that-very unzoologically, it is true-is bordered with teeth and is wide open.

If we decide that the sign *men* is a homologue to the Mexican *quauhtli*, "eagle," we are forced to the conclusion that this bird, which is analogous here to the *men* element, is intended for the eagle, and that the shape of the beak, the fact that it is wide open /593/ and has teeth (the latter a zoological inaccuracy), would correspond perfectly to the idea of an eagle. Likewise, there would be no objection to the gaping beak. For the Mexicans stated-not indeed of the large eagle, but of one of the smaller diurnal birds of prey, a species of falcon-that after it had eaten, it opened its beak to the wind, and this took the place with it of drinking, and they therefore called it *ecachichinqui*, "wind sipper." We are familiar with the fact that birds of prey very rarely drink.

This eagle's head glyph from the Palenque altar tablets, however, supplies the explanation for the leading glyph of the bird (Figs. 463-465). What is so singular, almost like a bat's head, is in fact nothing other than the eagle's head of Figs. 455-460. Only here the teeth, with which the beak is trimmed in Figs. 455-460, is replaced by the element "stone knife," and the *akbal* sign, "firmament, night," is given over the eye. This *akbal* sign is not intended, however, to designate this bird as nocturnal, but as celestial, like the *akbal* sign introduced at the same place with the second species of lightning animals pictured in the manuscripts (p. 181 above, Figs. 130-133).

Accordingly, the bird pictured in Fig. 463, which Schellhas, Förstemann, Brinton, and Stempell have confused with the vulture, since they consider the head with-

out a feather crest as bald, must be pronounced an eagle in spite of the lack of that characteristic, so prominent in the eagle pictures in the Mexican manuscripts, the erect feather crest. This has been my opinion from the first, and I see no reason to alter it now. For in truth the smooth head drawn without the feather crest is not to be considered as bald and featherless.

/594/ In the glyphs of the Palenque tablets we see distinctly that a feather crest belongs to the bird. The vulture, however, which in truth has a bald, featherless head, is always provided with an element in the Dresden that, from its shape, I shall designate briefly as a knot of ribbon, and the bald bird's head with this element of the knot of ribbon is the true, proper glyph of the vulture, as I must emphasize in opposition to Schellhas and Stempell (see below, Figs. 504-510, 529).

As a further verification of my interpretation of this bird's head, the fact may be considered that, with the leading glyph of the bird in Fig. 463, Fig. 451 occurs as a regular accompanying glyph. This is the last of the three glyph forms with *men* as the chief element. Thus the first of these three glyphs, Figs. 446, 447, which bears on its upper edge a row of feather balls, in my opinion signifies the bird of the celestial height; the second glyph, Figs. 448-450, which, along with *men*, the most prominent element, has an eye, representing the bird boring out the eye-such a role fits the eagle quite as well as the vulture (in the Quiché myths it is exactly called *x c'ot cu vach*, "the one who digs out the eye") while the third of these glyphs, Figs. 451, 452, designates the warrior bird. For the element *been-kak* contained in this hieroglyph is one of the most essential elements of the glyph of the sun god and denotes conquest, war, lordship. The warrior bird, however, is not the vulture, but the eagle.

Stempell, who explains the bird in Fig. 463 as a vulture-erroneously, as I believe I have now shown-considers so me other birds occurring in the manuscripts as diurnal birds of prey, i.e. eagles, chiefly on account of the curved beak and feather crest, which he thinks they display. Owing to the conventionalized style of drawing, however, the curved beak in these manuscripts is an unreliable characteristic and is frequently also drawn on other birds. And a feather crest-erect feathers in general-is a characteristic not only of birds of prey but also and especially of certain kinds of poultry.

The Mexican word *tapalcatl*, which denotes the erect feathers of the eagle, in like manner is applied, e.g. to the erect feathers or loose, bristling feathers of the back of the neck and the breast of the turkey (*totolquech-tapalcatl*). And as I shall point out later, I am obliged to consider as fowls the bird given, e.g. on Dresden page





Figs. 454-460. Glyphs from Palenque: Fig. 454. Temple of the Cross, Q9; Fig. 455. Temple of the Cross, E15; Fig. 456. Temple of the Cross, O15; Fig. 457. Temple of the Foliated Cross, F6; Fig. 458. Temple of the Foliated Cross, O4; Fig. 459. Temple of the Foliated Cross, M9; Fig. 460. Temple of the Foliated Cross, K1.

Fig. 461. Glyph from Menché Tinamit. Maudslayi II, pl. 83, glyph 10.

Fig. 462. Glyph from Palenque. Temple of the Inscriptions, center L2.

Figs. 463-464. The eagle. Dresden 17b, 17c.

Fig. 465. The eagle. Tro 18\*c.

Fig. 466. The falcon, third of 13 birds, lords of the hours of the day, Borgia 71, Borbonicus, Aubin Tonalamatl.

Figs. 467-468. Ueuecoyotl, the old coyote, the dance god, lord of the fourth day sign, and a falcon: Fig. 467. Borgia 10; Fig. 468. Vaticanus B 29.



Fig. 469. The falcon? with Ueuecoyotl, the dance god, lord of the fourth day sign. Vaticanus B 89.

Fig. 470. The falcon? with the water goddess, lady of the fifth day sign. Vaticanus B 89.

Figs. 471-472. The falcon, with the water goddess, lady of the fifth day sign. Borgia 11, Vaticanus B 30.

Fig. 473. The falcon? Nuttall 72.

Figs. 476-499. The vulture: Fig. 476. Magliabecchiano 13; Fig. 477. Aubin Tonalamatl 20; Fig. 478. Telleriano-Remensis 18; Fig. 479. Borbonicus 5; Figs. 480-482. Borgia 11, 4, 20; Fig. 483. Vaticanus B 92; Fig. 484. Fejérváry Mayer 40; Figs. 485-486. Bologna 6, 7; Figs. 487-491. Vaticanus B 5, 27, 27, 65, 6; Figs. 492-499. Nuttall 84, 73, 61, 59, 9, 20, 33, 12.



"4 on the head of the black god, and therefore also the bird on page 43c with the rain god Chac, both of which Stempell calls eagles (below, Figs. 635, 636).

It is very probable that the bird pictured on page 4\*c of the Codex Tro, on the head of the black god, is also a fowl (Fig. 634). The only picture where one may be in doubt whether the character of the head feathers most vividly suggests /595/ the eagle pictures of the Mexican manuscripts, is the bird pictured below the constellations on page 23b of the Codex Pérez. Yet here too I shall have to specify a parallel that renders such an identification questionable.

It is, of course, out of the question to identify the *moan* bird with the Spizaetus. This is one of the many superficial interpretations of Brinton, not worth discussion.

It is curious that the eagle is so comparatively rare in \faya documents. For even the glyph in Figs. 455-460, which occurs seven times at Palenque, has eluded my search of the inscriptions of Copan and Quirigua. I found an excellent form of the glyph, Fig. 446, at Menché Tinamit (Fig. 461).<sup>12</sup> If the glyphs of the monuments of the Usumacinta region could be studied as easily as the inscriptions published by Maudslay, perhaps more of these, and allied glyphs, might be found.

#### 24. Sparrow Hawks, Falcons, and Other Diurnal Birds of Prey

Sparrow hawks or hawk-like birds of prey were called *tlotli* by the Mexicans. As the secondary, weaker, and smaller pair of warrior animals, the *tlotli-cuetlachtli*, "sparrow hawk and kinkajou," is quite frequently denoted in the myths and tales, together with the *quauhtli* and *ocelotl*, the eagle and jaguar. The small falcons were known under the names *tletleclli*, *ictlecatl*, *necuicli*, or *cenotzqui*, "frost callers," because these birds were believed to announce the approach of frost, the cold season.

Among the Zapotecs the sparrow hawk is called *mani petiqui*, the Maya tribes of Guatemala called it-or a special species of sparrow hawk-uac, from its cry, and this name *uactli* was also adopted by the Mexicans as the designation of the white-hooded hawk, whose cry was considered by traveling tradespeople as a very disastrous omen. In Yucatan the sparrow hawk is called *ch'uy'*, *ah ch'uy'*, *hch'uy'*, or *ah ch'uyum thul*, "who seizes rabbits."

A small brown bird of prey is in the Borgia as the third of the 13 birds, the representatives of the 13 layers /596/ of the sky and the 13 hours of the day (Fig. 466). It is distinguished by a very round head, which in fact is a characteristic of many species of falcons and hawks,

but the beak is clearly drawn too long, and, as usual, is conventionalized.

On account of the roundness of the head I am also obliged to connect with this small diurnal bird of prey the bird with arms and hands in the Borgia grouped with the god Ueuecoyotl, the representative of the fourth day sig. (Fig. 467), and the water goddess, the representative of the fifth day sign (Fig. 471). Of the homologous pictures in the Vaticanus B, one (Figs. 468, 472) clearly represents the same kind of bird. At second place (Figs. 469, 470), however, this is replaced by a bird eating filth, a *tlaelquani*, therefore a representative of sin.

In Figs. 468, 471, a wreath of feathers, a veil such as owls have, is clearly drawn in the region of the eye. I have discussed the same case above in the section On eagles. Since owls, however, as we shall see, are usually pictured full face, we shall not discuss this case further, or the bird painted white in Fig. 473, which has the same round head and short crooked beak as the birds of the previous illustrations, although it has in addition a distinctive veil.

#### 25. The Vulture

/598/ The vulture, and especially the king vulture, *Sarcorhamphus papa*, which the Mexicans called *coz-caquauhtli*, "ringed eagle," represented the sixteenth of the 20 day signs in the Mexican-Central American calendar, and its symbol there is Itzpapalotl, the representative of the Cuateteo, the female dead, spirits of the women who have been sacrificed or had died in childbirth and had become gods.

The pictures show nothing of the neck ruffle from which the bird received its Mexican name, but the fleshcolored bare face, the bristly feathers of the head, the red color of the warts, wrinkles, and other excrescences of the skin of the head, the whitish color of the tip of its beak, are often indicated with varying degrees of distinctiveness (Figs. 476-499). Where the full figure of the bird is drawn (Figs. 482, 500), the deep black color of the wing and tail feathers, and the pure white, loose feathers of the breast and legs, are sufficiently marked.

As a mythological bird, and to illustrate the word *cozcatl*, "jewel," contained in its name, it usually has a human ear and ear pendant in the form of the ear pendant of the dance god (Figs. 476, 478-481, 489, 492-495, 497, 498). The head band, which it wears in Figs. 476, 478, connects the bird with the god Quetzalcoatl, while the down on the head, the two forehead locks, and the warrior-feather ornament on top of the bird's head in Figs. 485, 486, and also in Fig. 500, characterize the vulture as a likeness of the war goddess, Itzpapalotl. In Figs. 502, 503, the vulture is represented simply as the





Figs. 500-503. *cozcaquauhli*, the vulture, with Tlaçolteotl, the old moon and earth goddess, lady of the thirteenth Tonalumatl section. Borgia 68, Vaticanus B 61, Aubia Tonalumatl 13, Borbonicus 13.

Fig. 504. The vulture, fifteenth of the 20 gods. Dresden 8a.

Figs. 505-508. Glyphs of the vulture. Dresden 13c, 11b, 17c, 3a.

Fig. 509. The vulture, in copulation with a dog. Dresden 13c.

Fig. 510. The vulture, in copulation with a goddess. Dresden 19a.

Figs. 511-512. The vulture, symbol of the day 9 men, first of the lightning animals. Dresden 38b, Cortés 10a.

Fig. 513. The vulture, symbol of the day 9 men. Tro 35c.





Fig. 514. The vulture, Pérez 16.

Figs. 515-516. The vulture and a black bird on the left (red) and on the right (black) side of Pérez 19.

Fig. 517. The vulture and a snake, Dresden 36b.

Figs. 518-519. The vulture, eating the eye of a sacrificial vic-

tim: Fig. 518, Dresden 3a; Fig. 519, Tro 22c.

Fig. 520. The vulture(?) and a turkey, Tro 28\*a.

Figs. 521-522. The vulture eating out an eye: Fig. 521, Tro 28\*, 27\*a; Fig. 522, Tro 26\*, 25\*a.

likeness of Tezcatlipoca, the young god, the warrior, and is dressed in his full costume.

In the Maya area the king vulture is no longer the name and symbol of the sixteenth day sign. By reason of a connection of ideas, in which the middle term may be baldness and age-the vulture is the bald head among birds-or perhaps filth and sin, the vulture in the Yucatan has been replaced by the intoxicating beverage, pulque, honey wine, after whose name (*ci*) the day sign (*cib*) has evidently been called.

The names given in the Guatemalan and Tzeltal calendars for the sixteenth day sign (*chabin*, *ahmak*) contain perhaps the name of the king vulture. Otherwise, I am acquainted with no Maya name. The names specified for "vulture"-*c'uch* in the languages of Guatemala, *kuch*, *ch'om*, *ah ch'om*, *uxcil* in Yucatan-all seem to refer to the turkey vulture or the raven vulture, i.e. to the zopilote species.

If, however, the king vulture no longer appears in the Maya manuscripts as a day sign, yet the bird itself, which is preeminently a mythological figure, is not alien to the Maya documents. In the Dresden manuscript the vulture /600/ is usually represented not as a bird, but as a demon in human form with a bird's head. We find it in this character as fifteenth of the 20 gods (Fig. 504), as first of the rain and lightning gods (Figs. 511, 512), and in copulation on the one hand with a dog, and on the other, with a goddess (Figs. 509, 510). The head in these cases is drawn smooth and bald, like the eagle's head (p. 245 above, Fig. 463), but an /601/ element is invariably indicated at the forehead which by reason of its shape I will designate a knot of ribbon. It may also actually correspond to the knot of ribbon with which the vulture was represented in Figs. 476 and 478, and to the bald head with which this knot of ribbon is the regular and principal glyph of the vulture (see glyphs in Figs. 504, 510, 511, and 506,507).

In Fig. 506 there is in addition a distinct ring around the eye. The natural bird is approximated in all these cases by alternate black and white zones on the demon's body. This corresponds to the natural coloring that is reddish-white on the upper part of the back and wings, pure white on the breast and legs, with the remaining portion and main part of the wings, however, a deep black, as is also the tail. In Fig. 511 the arm of the human figure has a wing-like pendant hanging from it, expressing still more clearly the bird nature of this demon.

At first glance no one would call Figs. 514,515, vultures. The round head and remarkably short curved beak suggest rather the hawk or falcon. They are, however, connected with the pictures discussed above through the element of the knot of ribbon, which is drawn large at

the forehead. That these-and therefore also the pictures discussed above-are to be considered depictions of the vulture, and the king vulture at that, *Sarcorhamphus papa*, follows not only from the face, clearly lighter (one indicated by light red lines), but also from the fact that /602/ in Fig. 514 this bird has a crest of bristly feathers and a human ear with a pointed oval pendant (the pendant of the dance gods).

This pendant therefore corresponds exactly to the *coz-caquauhtli* pictures in the Mexican manuscripts (e.g. Figs. 476, 478, 489,492-494,498). The bird, Fig. 515, stands on the left, red, side of Codex Pérez 19, while opposite it on the right, black, side of the page is the black-feathered bird (Fig. 516). The latter is perhaps drawing out the entrails of a god, or eating them. Unfortunately the leaf is much defaced, so that the meaning of the representation as a whole can no longer be discerned.

The bird demon, Fig. 511, of the Dresden has its parallel in Fig. 512 of the Codex *Tro*. Here we no longer see the bird demon represented, but an actual bird with long beak, a ring surrounding the eye, and at the forehead a /603/ rudiment of the knot of ribbon element, which in the Dresden manuscript is characteristic of the vulture demon and also regularly appears in the glyph. In general the bird is drawn much conventionalized, and no attempt is made to reproduce the characteristic coloring of the king vulture's plumage. It is drawn simply as a black bird, the white serving merely to mark the outlines. The leg alone, from the place where it joins the body, is left white.

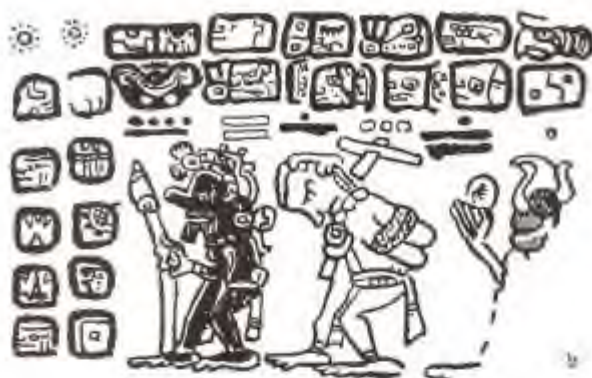
Similarly, in the Dresden, an actual vulture occurs twice instead of the bird demon. In the first (Fig. 517), the vulture is characterized by a long beak, by its face which exactly as in Figs. 514, 515, is marked as naked by the heavy ring around the eye (frequently red in the *Tro*) and by the concentric roll in light red lines-and by the crest of bristling feathers. The last, however, indicated by fine red dashes, is only recognized by careful scrutiny. The knot of ribbon element is lacking altogether, and the plumage is plain black, with the exception of the leg, which here too is left white, as in Fig. 512.

The glyph (second in the upper row), however, is exactly the same as that given with the vulture men of Figs. 504, 510, 511, with the knot of ribbon element at the front of the head. Only here the eye ring and the concentric roll of the naked face, which seem to have been omitted in the pictures and glyphs previously mentioned, are distinct. Because of the black color Stempell would like to consider this a zopilote, the turkey vulture /604/ or raven vulture (*Cathartes aura*). But I think the glyph and the knot of ribbon element connect this bird figure very closely, on the one side, with the vulture





524



527



523



528



b



525

526

Fig. 523a,b. The vulture eating entrails. Tro 17a, 15a.

Fig. 524a,b. The vulture, companion of the black god. Tro 3b, 2b.

Fig. 525. The vulture on the head of a woman. Tro 19\*c.

Fig. 526. The vulture, on the head of the maize god. Tro 31c.

Fig. 527. The *kan* years. Tro 22.

Fig. 528. Cortés 33a.



Fig. 529. Glyphs of the vulture. Tro 19b, 5\*c.

Figs. 530-531. Varying glyph forms. Dresden 39c, 56b, Pérez 11b.

Fig. 532. The barn owl, sixth of the 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Fig. 533. The horned owl, tenth of the 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Fig. 534a. The horned owl, in the house of the south. Borgia 52. b. The barn owl, in the house of the south. Bologna 13.

Fig. 535. The horned owl. Nuttall 55.

Fig. 536. The screech owl, on a crossroad with Mictlantecutli, the lord of midnight. Borgia 14.

Fig. 537. The horned owl and the death god. Borgia 50.

man, and on the other, with the birds of Figs. 514, 515.

And the vulture man, by its bi-color, and Fig. 514, by its ear and ear pendant, point so explicitly to the *cozcaquauhtli* and the *Sarcorhamphus papa* that I cannot separate them. The figures of these manuscripts display very /606/ little that is true zoologically-the mythological content being the first consideration-as is seen from the series of *cozcaquauhtli* heads given above. As in the entire series of Mexican manuscripts, the *cozcaquauhtli* is so often pictured, yet not a view occurs that might be identified as the more common member of the family, the zopilote (*cathartes aura*), so also in the Maya manuscripts it is the mythological animal, the *Sarcorhamphus papa*, that the pictures were intended to represent.

A second picture where the vulture appears in full figure in the Dresden is the interesting page 3 (Fig. 518). We see the sacrificed captive thrown over a tree trunk that, in the shape of a gaping dragon jaw, bites (casts its roots) into the ground. From the gaping wound in the victim's breast the tree grows upward, branching at the top, and on this the vulture sits, holding in its beak the bored-out eye of the victim. I am reminded of the connection between boring out the eye and sacrifice, to which I called attention on pp. 234, 244, above.

Sitting around the tree are four gods:

1. (left, bottom), the maize god;
2. (right, bottom), the god with the *chicchan* spot and an iguana, both bound (intended for sacrifice);
3. (left, top), the death god;
4. (right, top), the water god, Ah bolon tz'acab.<sup>13</sup> Here the vulture is drawn and colored very like the preceding illustration (Fig. 517). But only faint traces, small red dots, appear of the bristling feather crest. The principal glyph is wanting here, but the secondary glyph of the vulture is present (the glyph in Figs. 448-450, p. 243, above).

Page 3 of the Dresden (Fig. 518) has a parallel also, in the numbers and columns of day signs, on Tro 22c (Fig. 519). Here too we see, at the beginning of the series, the vulture sitting on a tree, which here is drawn as thorny, with the bored-out eye (of the sacrifice) in its beak. The bird's plumage is black. The eye ring is distinct but uncolored. The bristling feather crest appears here as a thick black line bordering the head, from which a number of short bristles project.

/607/. Of the other vulture pictures in the Madrid manuscript I call attention now to Fig. 513, first, because here again at the root of the beak the knot of ribbon element is visible, which I mentioned in discussing the vulture man of the Dresden, and again because this bird is specified here in the same column of day signs, 9 *men*, as the vulture man, or the vulture, which begins the ser-

ies of rain and lightning gods in the Dresden (Fig. 511) and in the Cortés (Fig. 512).

I cite also Figs. 521, 522, and 523a, b, where the vulture is again represented boring out the eye or eating the entrails. Figure 520 is in advance of the latter; in Fig. 520 the vulture is curiously intertwined with the turkey.

In Fig. 525 the vulture is squatting on the neck of a woman. See also Fig. 526, the vulture on the head of the maize god, and in the lower section of Fig. 527, which illustrates the fate of the *kan* years, the vulture above the head of the maize god, and, finally, Fig. 528 and the glyphs in Fig. 529. In all these figures, and also in the glyphs with Fig. 522, the knot of ribbon is quite visible above the beak. In Fig. 521 warts and wattle are indicated, similar to those of the turkey. /608/ In the glyph, Fig. 526, only a bird's head with eye ring and concentric roll is drawn. In Figs. 520, 522, 525, 526, the eye ring is emphasized by its red color. Everywhere the plumage is plain black, the legs alone, as always, being left white. In Fig. 520 the bristling feather crest is plainly marked.

Somewhat different glyph forms, variants, of which I am not /609/ sure whether they should be directly classed with those of the vulture, are grouped in Figs. 530, 531.

With the vulture, perhaps, belongs the black bird of Fig. 516, the black bird in the lower section of Fig. 391a (p. 236, above), the black bird of Codex Perez 2a, and a few others.

## 26.Owls

The large owls were called by the Mexicans *tecolotl*, the smaller, the screech owls, *chiquatli* or *chichtli*. The first are called by the Zapatecs *tama cotama*; the latter, *mani pixée*, *mani pixie*. In the Maya languages of Guatemala the large owl was called *tucur*. In Yucatan we find the name *tunculuch'u*; the screech owl is called *icim*.

On page 71 of the Borgia Codex, and in the Tonalamatl of the Codex Borbonicus and the Aubin manuscript, two different owls are pictured, one without ears (Fig. 532)-this is the sixth of the 13 birds, the lords of the hours of the day-and another, a large owl with ears (Fig. 533), tenth of the 13 birds. In the case of both, a feather ring surrounding the eye, a "veil," is also given.

The owl as the representative of night, darkness, and the characters influential at night, is frequently pictured. The only example in the Mexican manuscripts is *en face*. /610/ The eared owl is preferably chosen as representative of the family (Figs. 534a, 535, 537-538). Since night, darkness, and death are connected, the owl is not uncommonly pictured with a death's head (Figs. 533, 536). In the section on eagles and falcons I pointed





Fig. 538. The horned owl, with Tlaçolteotl, lord of the fourteenth day sign. a. Borgia 12, b. Vaticanus B 91.

Figs. 539-541. Glyph of the screech owl.

Figs. 542-545. Glyph of the screech owl, symbol of the death gods, clad as a woman on the back. Dresden 18c, 19c, 20c, 20b.

Fig. 546. Night bird, owl? Tro 25\*c.

Fig. 547. The owl on the neck of a woman. Tro 19\*c.

Fig. 548. The owl (or moan bird?). Cortés 39h.

Fig. 549. The owl(?) or moan bird. Pérez 10b.

Figs. 551-562. The moan (*muan*), fifteenth Uinal (April 22-May 11): Fig. 551. Landa; Figs. 552-555. Dresden 47, 48, 46; Fig. 556. Piedras Negras, Stela F8; Figs. 557-558. Quirigua, Toad G11, Stela E west side 24; Figs. 559-562. Copan, Stela II back side 1, Altar Q upper side 14, Stela A back side 16, Stela C 8.



Figs. 563-567. The *moan* bird. Dresden 10a, 11a, 7c, 16c, 18b.  
 Fig. 568. Head of the *moan* bird. Seat of the rain god Chac. Dresden 38c.  
 Fig. 569. Glyph of the *moan* bird. Dresden 8a.  
 Figs. 570-571. The *moan* bird. Tro 18\*c.  
 Fig. 572. The *moan* bird. Cortés 32a.  
 Fig. 573. *uexolotl*, "turkey," ninth of 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Fig. 574. Glyph for Uexolotlan. Mendoza 12, 17.  
 Fig. 575. The turkey cock, on a mountain. Glyph of Totoltecattl. Magliabecchiano 57.  
 Fig. 576. The turkey cock. Fejérváry Mayer 19.  
 Fig. 577. The turkey cock, before the old sky god. Fejérváry Mayer 6.  
 Fig. 578. The turkey cock with a dog, opposite the old goddess. Laud 26.

out that, in contrast to these owl faces usually drawn *en face*, a few profile heads occur that one is tempted to explain as owl heads.

In the Maya manuscripts a glyph that is a common companion of the death gods, or death-dealing powers, is to be identified evidently as an abbreviation of the profile face of an owl or a screech owl (Figs. 539-541),<sup>14</sup> with a nostril on which a groove runs to the tip of the beak, with the beak cleft and the suggestion of feathers bordering the beak's base. The glyph occurs as the head on full figures, small skeletons, or death gods (Figs. 542-545).

/612/ For the rest, the owl may be recognized with some degree of certainty only in Figs. 546-548. The second one occurs in the series reproduced above, p. 226, in Fig. 331. The two ears make it clear, I think, that this is an owl. But it is curious that as a glyph here for this bird we see the glyph of the dog, and that also in the allied series of the Dresden manuscript (p. 224, Fig. 329, where, it is true, not all the animals and birds named are represented in full figure, a glyph follows the eagle and vulture, /613/ which, though it does not denote the dog itself, is akin to that of the dog.

In the Cortés in the closing picture of the remarkable list beginning with *imix* of the 13 x 20 days of the Tonalamatl-here divided into 32 x 8 + 1 x 4-Fig. 549 is given with the rain god Chac.

I also add here Fig. 549, which in the Pérez stands with the deer-headed god in Fig. 302 (p. 214). It is probable, however, that this is also the mythological bird, the *moan* bird, which I shall discuss in the following section. Its kinship with the owl must be acknowledged, and in this Stempell is correct.

### 27. The Moan Bird

In a previous article I gave the name *moan* bird to a mythological animal whose head was used to designate the *uinal moan*, one of the eighteen sections of 20 days into which the year was divided /614/ (Figs. 551-562).<sup>15</sup> The head (see Figs. 563-571) displays an owl-like curved beak bordered at its base with heavy moustache hair or beard feathers, large hairy (feathered) and spotted ears, and a large eye with black or red brow. The body, sometimes human (Figs. 563-565, 572), in other cases bird-like with wings (Figs. 566-567, 570-571), commonly displays a back decorated with large black dog-like spots and ending in a spotted tail, varying in length and /615/ usually stumpy.

In my work on the day signs of the Aztec and Maya manuscripts I described this animal in connection with the *cauac* sign.<sup>16</sup> Its principal glyph shows either the bird's head (Figs. 566-567, 569) or the symbol of "union," "sky" (Fig. 563, first glyph, Fig. 565, second

glyph of the first series). But the numeral 13 always appears in the principal glyph before the picture or symbol. I have shown that this glyph is clearly the glyphic expression for the *oxlahun taz muyal*, "thirteen layers of clouds," which are mentioned in the Misa milpera of Xcanchakan.

That this creature is therefore the mythical conception of the cloudy covering of the sky is obvious: *muyal* in Mayan means "cloud," and *moan-kin* is a cloudy and rainy day. Finally, I have also shown that the element that originally denoted *cauac*, "thunder shower, lightning and thunder," is connected with this mythical creature, and that the *cauac* sign in part is simply an abbreviation of the head of the *moan* bird.

The indubitable pictures of this mythic bird are collected in Figs. 563-571. But as I stated above, and as Stempell also assumes, it is probable that Fig. 549 should be added to this series. It is given with the owls. There is no doubt that the owl was the model for the bill and ears of the *moan* bird. And this is still more obvious /616/ from Fig. 570, which displays the correct owl-like *en face* head that is so striking in the owl pictures of the Mexican manuscripts. For there is no doubt that the somewhat longer point on the right side in Fig. 570 is not a bill drawn in profile, as Stempell thinks, but merely a feather beard hanging at the side of the bill, exactly as we see it in the *en face* owl heads of the Mexican manuscripts (Figs. 534a,b, 537, 538a,b).

The bill cleft bordered by beard feathers is also distinct in Fig. 570. Together with the bill and ears of the owl or of the eagle owl, the *moan* bird united different elements evidently taken from the dog-the black spots over the eye, the large black spots on the back and tail -quite long in some instances. This combination of elements is found, however, not only in the Dresden, but also in the Codex Tro and-as far as Fig. 549 is distinct-also in the Codex Pérez. And there is nothing surprising in this. For the Tro is not, as Stempell believes, the original, but undoubtedly the later document.

That such a combination could be made, however, seems to arise from the ideas that these races associated with the owl. In Fig. 547 we saw that a bird, which on account of its feather ears and regular tail must be identified as an owl, is designated by the glyph of the dog.

### 28. The Turkey Cock

(*Meleagris gallopavo* L. and *Meleagris ocellata* Cuv.)

In Mexican the turkey cock is called *uexolotl*, the hen or the turkey family in general, *totolin*, which originally probably simply meant "bird." For *tototl* is the usual word for birds of every kind.

The Zapotecs call the fowl *pete* or *pere*; the native



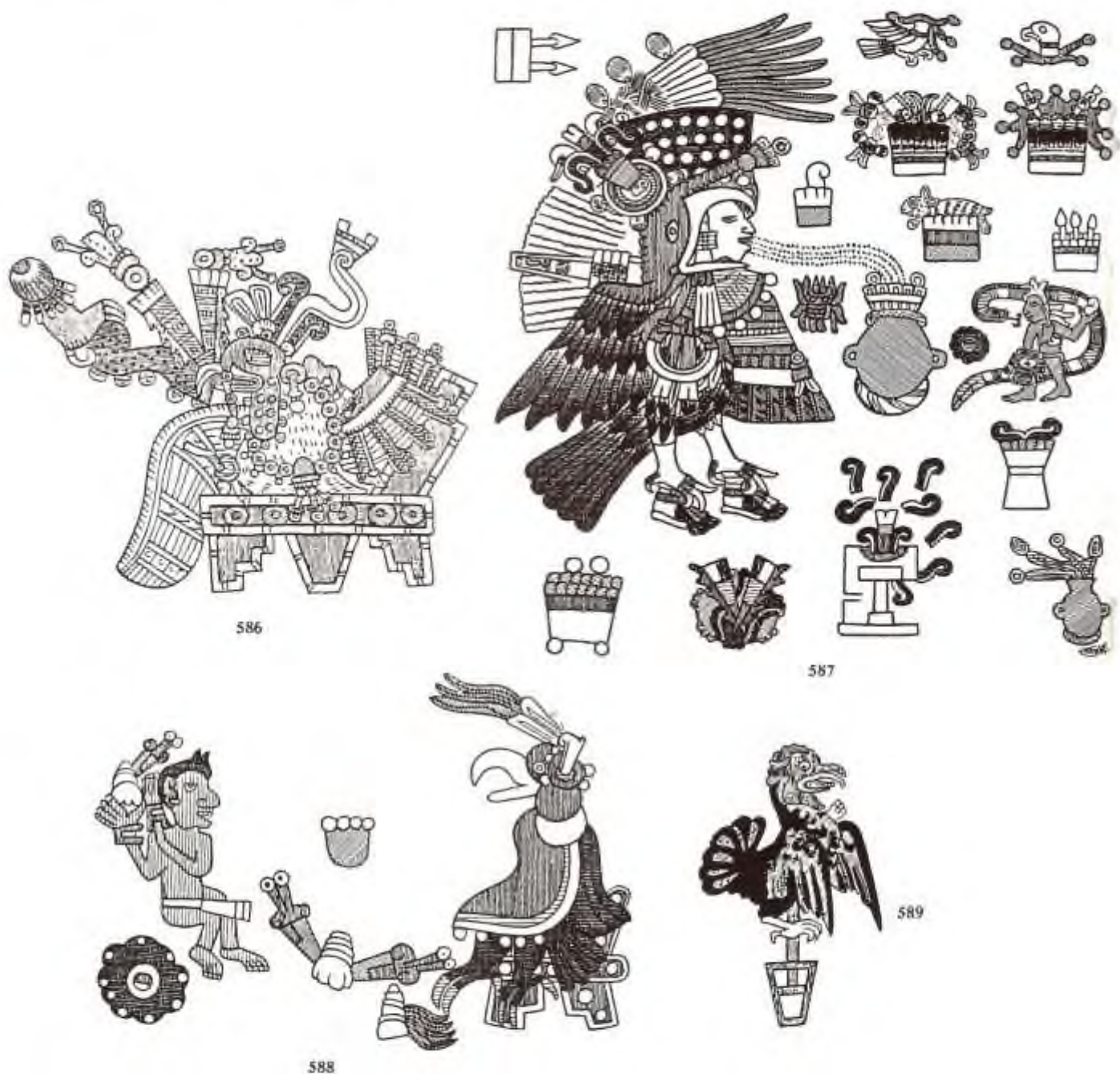


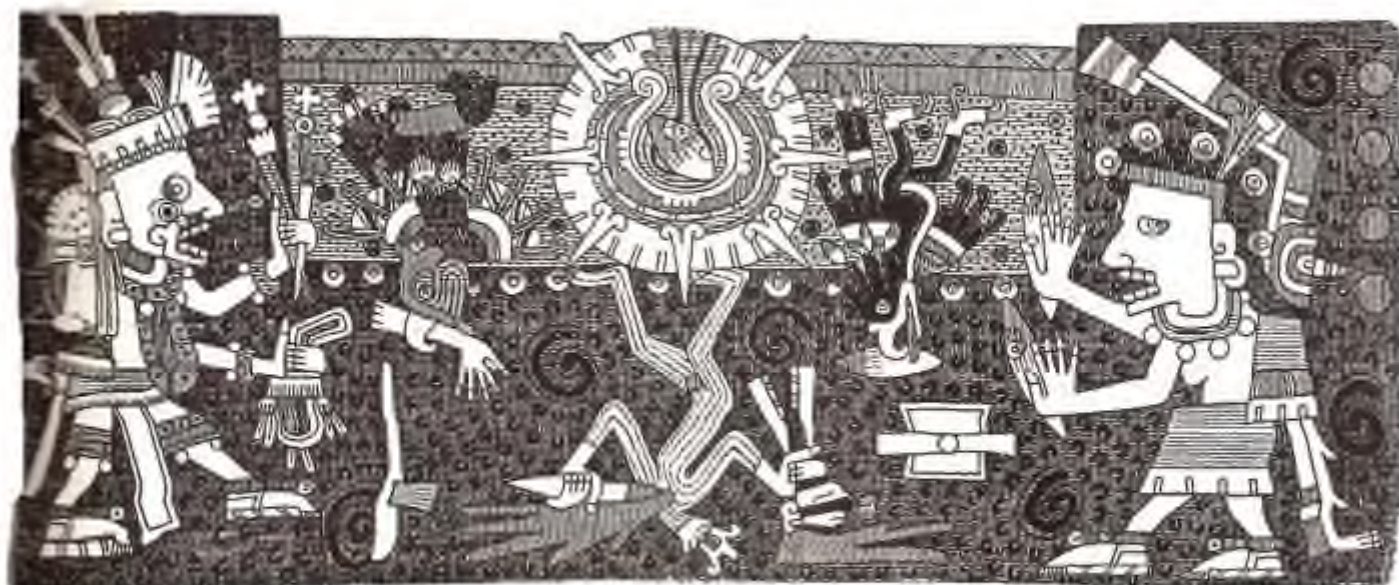
Fig. 586. The turkey (*chalchihuatotolin*), regent of the seventeenth Tonalamatl section. Vaticanus B 65.

Fig. 587. The turkey (*chalchihuatotolin*), with the ornaments and insignia of Tezcatlipoca, regent of the seventeenth Tonalamatl section. Borbonicus 17.

Fig. 588. The turkey, regent of the seventeenth Tonalamatl section. Aubin Tonalamatl 17.

Fig. 589. The turkey, warrior insignia. Sahagún ms., Biblioteca de la Academia de la Historia.





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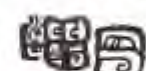
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Fig. 590. Tullan, the realm of darkness, and descending into this, *quauhtli*, "eagle" (the sun), and *tototli*, "hen" (the moon). Borgia 18.  
Fig. 591. The eagle and the turkey on the wooden cylinder of a skin drum (*tlaplan uuestl*) from Toluca. Guillermo de Heredia Collection, México.

Fig. 592. The turkey, squatting on the head of a woman. Tro 18\*c.

Fig. 593. The turkey, in a noose. Tro 22\*a.

Fig. 594. The turkey, in a net. Tro 20\*a.

Fig. 595. The turkey in the ix years. Tro 20b.

Fig. 596. The turkey in the *muluc* years. Tro 21a.

Fig. 597. The turkey, on the arm of a hunter. Tro 23\*a.

hens, also turkeys, are called *pete hualache*, *pete zaa*, to distinguish them from the domestic fowls imported by the Spaniards; the turkey cock is *pete nigola*, "large fowl."

The Maya tribes of Guatemala have the general word *a'c* or *a'cach* for hens; the Yucatecs, *cax*. Both expressions are now used for the fowls introduced from Europe. Cock and hen in Yucatan are distinguished by *ahcax*, *ix cax* (male and female fowl), but in Guatemala by *mama a'c*, *atit a'c*, "grandfather and grandmother fowl." The same name is used in part in Guatemala for the domestic hen; but for the turkey cock we find the special name *mama col* or *mam col*, which may be translated "grandfather the nourisher," and doubtless is a name of mythological import.

The Yucatecs call the domesticated turkeys (*Meleagris gallopavo* L.) *ulum*, "cock," and *tux*, *ix tux*, "hen," and the wild turkey cock (*Meleagris ocellata* L.), *cutz*.

The turkey cock occurs on page 71 of the Codex Borgia as the ninth of the 13 birds, lords of the hours of the day, /619/ and also, in the Aubin Tonalamatl, as symbol or disguise of the rain god Tlaloc (Fig. 573). The hen (*totolin*) accordingly represents water (*atl*) and therefore also, as *chalchihutotolin*, "jewel hen," the *chalchihuatl*, "jewel water," i.e. blood, sacrificial blood, blood from castigation.

Hence in the Tonalamatl, the divination calendar, the turkey is the embodiment of the day sign *tecpatl*, "flint knife" (Figs. 581, 583, 584), and therefore also regent of the seventeenth Tonalamatl section (Figs. 585, 586). Appearing as the element of water, the counterpart of fire, it is, as symbol of the moon, the counterpart of the eagle, symbol of the sun (Fig. 590).

The two birds therefore appear together on the wooden frame of the drum on which time is beaten for the warrior dance (Fig. 591). As the two words *uexolotl* and *totolin* are also incorporated in a number of names of places and persons (see Figs. 574, 575), there is naturally no lack of pictures of the turkey in the codices.

In all cases it is readily recognized by the red and blue skin of its head and neck, covered with warts, and its long pendant lappets, by the black bill, the dark banded plumage, and the long feathers transformed into bristles on the front of the breast (Figs. 577-579, 583-584), which frequently (in the Borgia, Figs. 573, 581, 582, 585) are supposed to be a breast mirror and are represented by a jewel disk with /621/ protruding jewel band. Style and coloring of the plumage are of course often conventionalized, but in not a few instances (Figs. 582, 585, 590) the peculiar coloring of the wild turkey, *Meleagris ocellata*, is plainly marked-wings bordered on outer edge with white and on inner edge with narrow,

slanting bands of white, and tail feathers with light tips.

In the Maya manuscripts, we find the turkey first in the series of birds squatting on the necks of women (see above, pp. 224, 226, Figs. 329-331). Here in the first series of the Codex Dresden it is sixth (Fig. 329), and seventh in the Codex Tro (Fig. 331). At the latter place it is in full figure (Fig. 592), but in the Dresden series it is represented merely by its glyph. Its principal glyph is given in Fig. 611a,b.

Next, in the second part of the Tro, where the black god is stationed as hunter and captor, the turkey appears in a noose (Fig. 593) and caught in a net (Fig. 594)-not in a cage, as Stempell thinks-and on Tro 23\*a the hunter holds it on his arm (Fig. 597). On the pages treating of the pre-New Year ceremonies and the fate of the four years, the turkey is pictured with *ix* years and with the pre-New Year ceremonies for *muluc* years (Figs. 595-596). Most frequently, however-and in both the Dresden and Madrid codices-the bird serves as an offering (Figs. 598-611), a few times in full figure (Figs. 599, 610), but usually the head alone occurs, and commonly on the *kan* sign, which, as we know, denotes maize.

Not uncommonly the *kan* sign-and once also the bird itself (Fig. 599)-is offered in a dish. It is clear that this offering cannot be the vulture, as Schellhas assumes. An offering of vulture would undoubtedly have appeared to the ancients as blasphemy and an act of special depravity. Only an edible bird can be intended by these pictures, and the wattle drooping over the bill and the warty excrescences on the crown leave no doubt that they are intended for turkeys. They alternate with the fish, the stag, and the iguana.

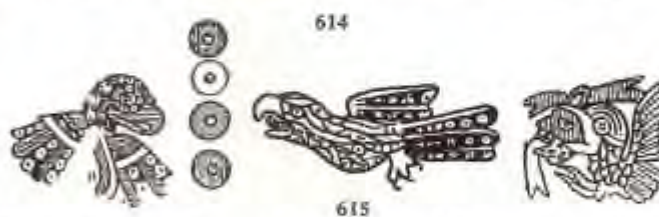
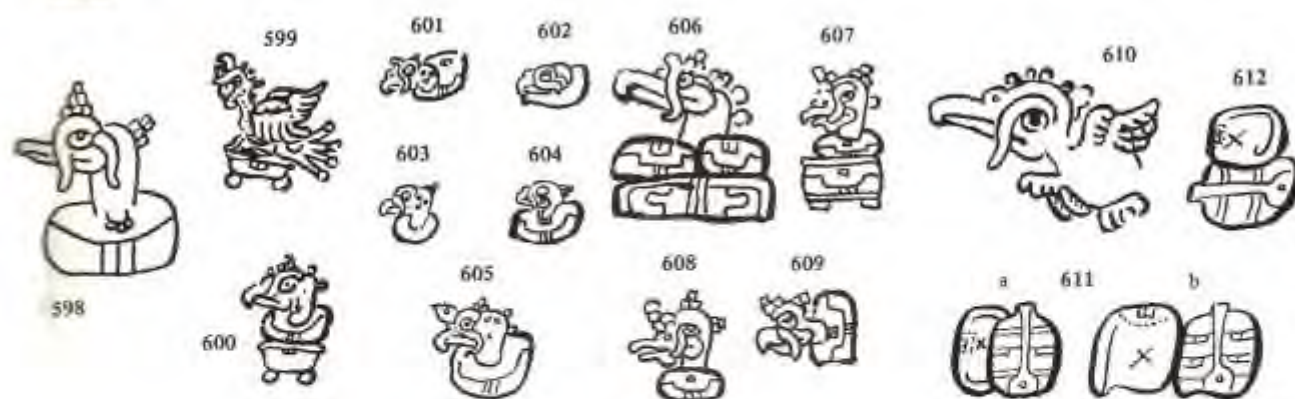
In these Maya pictures the warts on the crown are usually much exaggerated. They look like clusters, which in the *cauac* sign means "clouds," and perhaps this association was intentional. There are few pictures of the bird in full figure. /623/ Plumage is usually very conventionalized. In Fig. 595 the stripes and spots on the wing and tail feathers are very plainly reproduced, and in Figs. 592-595 also the loose feathers on the breast.

In Fig. 599 we also see the light spots /625/ at the end of the tail feathers of the *Meleagris ocellata*, to which I have called attention in several pictures from Mexican manuscripts.

#### 29. Yax cocah mut

In his *Relaciones de Yucatan* Bishop Landa gives an account of the four years named after the signs *kan*, *muluc*, *ix*, and *cauac*. He names the gods (the Bacab) who were their regents. He narrates what was expected of these years and finally gives a very detailed description of the ceremonies performed in the five days before





Figs. 598-612. The turkey as oblation! Fig. 598. Cortés 31a; Figs. 599-605. Dresden 26c, 28c, 41c, 23b, 29c, 30b, 34a; Fig. 606. Cortés 12b; Fig. 607. Tro 9\*b; Fig. 608. Cortés 4a; Figs. 609-610. Tro 8\*b, 6\*b; Fig. 611a,b. Glyphs of the turkey. Dresden 30b, 17c; Fig. 612. Glyph of the turkey as oblation. Dresden 44(1)c.

Fig. 613. The *muluc* years. Tro 21.

Fig. 614. Yax cocah mut, regent of Katun *ox ahau*, "three flower." Pérez 8. Fig. 614\*. Glyph of Yax cocah mut. Fig. 615. *çolla*, "quail," fourth of the 13 birds, lords of the hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Fig. 616. Glyph for Çollan. Mendoza 14, 5.





Figs. 617-619. The quail, the white-spotted bird, the starry heavens bird, the sacrifice bird. Nuttall K2, 2, 60.

Fig. 620. Quail sacrifice (*tlaquechcotonaltzilli*) before the sun god. Borgia 71.

Fig. 621. Quail sacrifice (*tlaquechcotonaltzilli*). Nuttall 38.

Fig. 622a,b. The quail, breast ornament of Xipe Totec, our lord the flayed one, Borgia 49, 25.

the new year for the purpose of warding off the evil that threatened even in the best years, which were generally considered favorable.

Thus according to him the *muluc* years are very favorable, supplying maize and other provisions in abundance. For *kin ich ahau*, the sun god, was the idol that was set up in these years, and Can *zihyanal-this* I think is the correct rendering of the "Canzianal" given in the text "the four creations," were the Bacab who filled over them. Although, as stated, these years were considered as the best, in order to avert drought and poor crops the old idols had to be removed from the temple in the five days before the beginning of the new year, and a new idol, *yax cocah mut*, set up.

Copal and rubber were burnt to this idol on a stone block erected in the yard, squirrels and a plain garment of one color were presented to it, and a dance on stilts was performed in its honor. Heads of turkeys, maize bread and broth, earthenware dogs with bread on their backs, and finally, a living dog that had a black back and must still have been a virgin, were offered to it.

Today the word *mut* denotes, on the one hand, the so-called "pheasant," i.e. one of the wild fowls (shaku hen or hocko hen),<sup>17</sup> and on the other hand, a thrush-like bird with a couple of red wing feathers. The last-named bird seems to be known under the name *chan-mut*, /626/ the "red *mut*," also known among the Mayas of Guatemala. There seems to be no doubt, therefore, that the idol Yax cocah mut also denoted a bird, and presumably a hen-like bird. Yax cocah mut can be translated "First miser, the *mut*."

The name Yax cocah mut<sup>18</sup> now belongs to the old names of gods that are mentioned in the Books of Chilam Balam, and it is given there as the name of the regent of the *katun* (the period of 20 x 360 days) called *ox ahau*, "three flower." Thirteen of these *katuns* are mentioned with special names. Of ten of them, *katuns* 2, 13, 11, 9, 7, 5, 3, 1, 12, and 10 *ahau*, there are representations on pages 2-11 of the Pérez, on which, probably, the fate and prospects of these periods are illustrated, as in the Books of Chilam Balam, except that here /627/ they are given in pictures and glyphs.

In connection with *katun 3 ahau* (Pérez, page 8), a bird is represented as regent (Fig. 614), but according to all appearances it is not a special species of bird but one that I have discussed in the preceding section, the turkey. It has its wattle hanging down over the bill (which Sahagún describes as a "separate bill of flesh"), and the warts and excrescences on its head, with which we became familiar in the preceding section.

The pre-New Year ceremonies in the *muluc* years and the destiny of these years are on Codex Tro page 21. In

fact, we see the stilt dancers there (Fig. 613) in the upper half, and in the lower half the dogs with *kan* and *imix*, i.e. with provisions on their backs. Along with the stilt dancers we should expect to find the idol Yax cocah mut, and we see the turkey pictured here too.

On pages 2-11 of the Pérez the glyph of the god pictured as regent of the *katun*, on the corresponding page, always stand third in the upper of the two rows of glyphs above the picture of the *katun* regent. On page 8 of the Pérez this place is filled by Fig. 614\*, which therefore is intended as the glyph of Yax cocah mut. It differs from that of the turkey (Fig. 612a-c). As we see, it too is a bird head, but a glyph that, through the knot of ribbon element above the bill, most strikingly resembles the vulture and its glyph (above, pp. 248, 249, Figs. 504-515). Here, however, the glyph of Yax cocah mut has a curious depression at the back of the head, which is lacking in that of the vulture.

### 30. The Quail

The species of quail native to Mexico and Central America, belonging in the main to the *Dendrortyx* family, are, in Mexican, *colin*, in Zapotec, *pechi*, *mani pechi*, and in Yucatec, *be'ch*.

The quail (Fig. 615) is pictured as the fourth of the 13 birds, lords of the hours of the day, and in the Aubin Tonalamatl (Fig. 615, third picture) as disguise of the god of vegetation, Xipe Totec. The quail, the special mark of which is a dark plumage strewn with small eye spots, was the Mexican symbol of the starry sky and therefore became the sacrificial animal *KoXT* É~{OXñU.<sup>19</sup>

The prescribed manner of sacrifice was by tearing off the head (*tlaquehcotonaliztli*, "to cut through the neck") and offering the blood and head, which was thrown down to the earth in front of the idol (Fig. 620). Connected with the mythological conception of the quail mentioned above is also the fact that the old goddess Tlacolteotl and her close relative Xipe Totec, the spring deity, /629/ god of vegetation, wear quail feathers or an entire quail as ornament (Figs. 622-623), and indeed, as I stated, the quail appears as Xipe Totec's disguise (see Fig. 615, third figure). For Tlacolteotl is the mistress of the night sky and the moon, and Xipe Totec, closely allied to her, is doubtless also to be considered a moon being.

In the Mendoza the ground color of the plumage is brown (Fig. 616), corresponding to its natural color. But in the Borgia and Nuttall it is blue. The eye spots are distinct in all the pictures. /630/ In the Nuttall the feathers on the crown are drawn loose (Figs. 617-619).

I have not been able to identify the quail positively in the Maya manuscripts. In the lower part of page 28 of





Fig. 623. Tlaqueotli, the old moon and earth goddess, with an ornament of quail feathers and with quail feathers in her head dress. Borbonicus 13.

Fig. 624 (above). Uac mitun ahau, lord of the *cauac* years. (below) the old god Itzamná sacrificing a bird. Dresden 28.

Fig. 625. King Coxcoxtli of Colhuacan. Boturini.

Fig. 626. Xochipilli-Chicome xochitl, the young god of flowers and generation. Magliabecchiano 47.

Fig. 627. Xochipilli, god of the young maize, Ekeness of the Tecuilhuitl feast. Magliabecchiano 35.





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Fig. 628. Xochipilli, painted earthenware image, Teotitlan del camino. Seler Collection, Royal Museum of Ethnology, Berlin.  
Fig. 629. Relief slabs, Teotitlan del valle (in Tlacolula district,

Oaxaca).

Figs. 630-633. Wall painting on the east side of the court adjacent to Palace I, Mitla.

the Dresden the old god Itzamná offers a bird with head torn off (Fig. 624), exactly as we find it in /631/ connection with the quail sacrifice on page 71 of the Borgia (Fig. 620). But the bird displays no special characteristics. And since Landa always writes only of "cabezas de pavo" that are sacrificed, and among the oblations the turkey is always given (see Figs. 599-611), Stempell is no doubt correct when he interprets Fig. 624 as the offering of a turkey.

### 31. The Grouse and the Pheasant

Of the wild native fowls the modern Mexican distinguishes the chachalaca, the cojolite, and the faisán. The first name (strictly, *chachalacametl* in Mexican), i.e. "talkative (bird) making much noise," includes the common species of shaku hens or Penelopides (*Ortalida McCalli*, according to García Cubas).<sup>20</sup> The (Mexican) name *coxoliltl* is applied to a species of the Odontophorus family, but especially to another species of shaku hen, one of the true Penelopides, *Penelope purpurascens*. Lastly, the name "pheasant" in particular includes the hocko hens, the species of the Crax family (*Crax globicera*, *C. rubra*). The Zapotecs call the first, the fowls known by their cry, *pere xijca*, and the other two, the cojolite and the pheasant, *pere coqui* and *pere póo*.

Among the Yucatecs the chachalaca is called *bach*.

Corresponding to the Mexican *coxoliltl* is the name *cox*, which also designates a species of quail, *Dactylortyx thoracicus* Sharper,<sup>21</sup> but at the same time it is used for a species of shaku hen, according to an earlier statement of Stephens,<sup>22</sup> *Penelope crissara*.<sup>23</sup> The species of the Crax family are called *kambul* in Yucatan and contiguous districts.

In Mexico we find the name *coxcotli*. As the glyph of the mythic king of this name shows (Fig. 625), the Mexicans understood thereby a bird with towering feather crest, and the similarity in sound of this name with the Yucatec *cox* and the Mexican *coxoliltl*, permits the assumption that this name is also given to a species of Penelope having a feather crest. The bird called *coxcotli* or *quetzalcoxcotli* was the disguise or likeness of the deity Xochipilli, the young god of flowers and love, generation, and the young ears of maize (Figs. 626-628). In a much reduced form in which nothing more can be seen of the bird than a suggestion of the towering feather crest, it also designates the allied deity Macuil xochitl, the god of gaming, and his dark brother Ixtlilton, the dance god.

Of this bird *coxcotli* we read in the hymn to Xochipilli:<sup>24</sup>

on the ball ground the quetzalcoxcotli sings, /633/ the maize god answers it

["The day has dawned" is the commentator's explanation]

Already the quetzalcoxcotli, the lord of the dawn, the maize god, sings.

This is therefore the bird that sings in the dawn, and which therefore evidently became the likeness and the embodiment of the young god, the lord of the feast of the new maize. As the bird that, like our cock, wakens the sleepers by its song, Sahagún indeed names not the penelope but the chachalaca.<sup>25</sup> And as to our hen, so to this bird also a peculiar lucky power dispelling demons was imputed.

The bird is very conventionally drawn in the Mexican documents (Figs. 625-628). Pictures truer to nature occur, however, among the paintings of the palaces of Mitla, where the birds and bird men, which are represented on the east side of the court adjacent to Palace I, are clearly intended to represent this grouse, which sings in the early morning (Figs. 630-633). These pictures render it possible, however, to identify some illustrations of the Maya manuscripts. In them we see a bird with slightly bent bill, a feather crest running /634/ along the top of the head, and a peculiar dark ring encircling the eye.

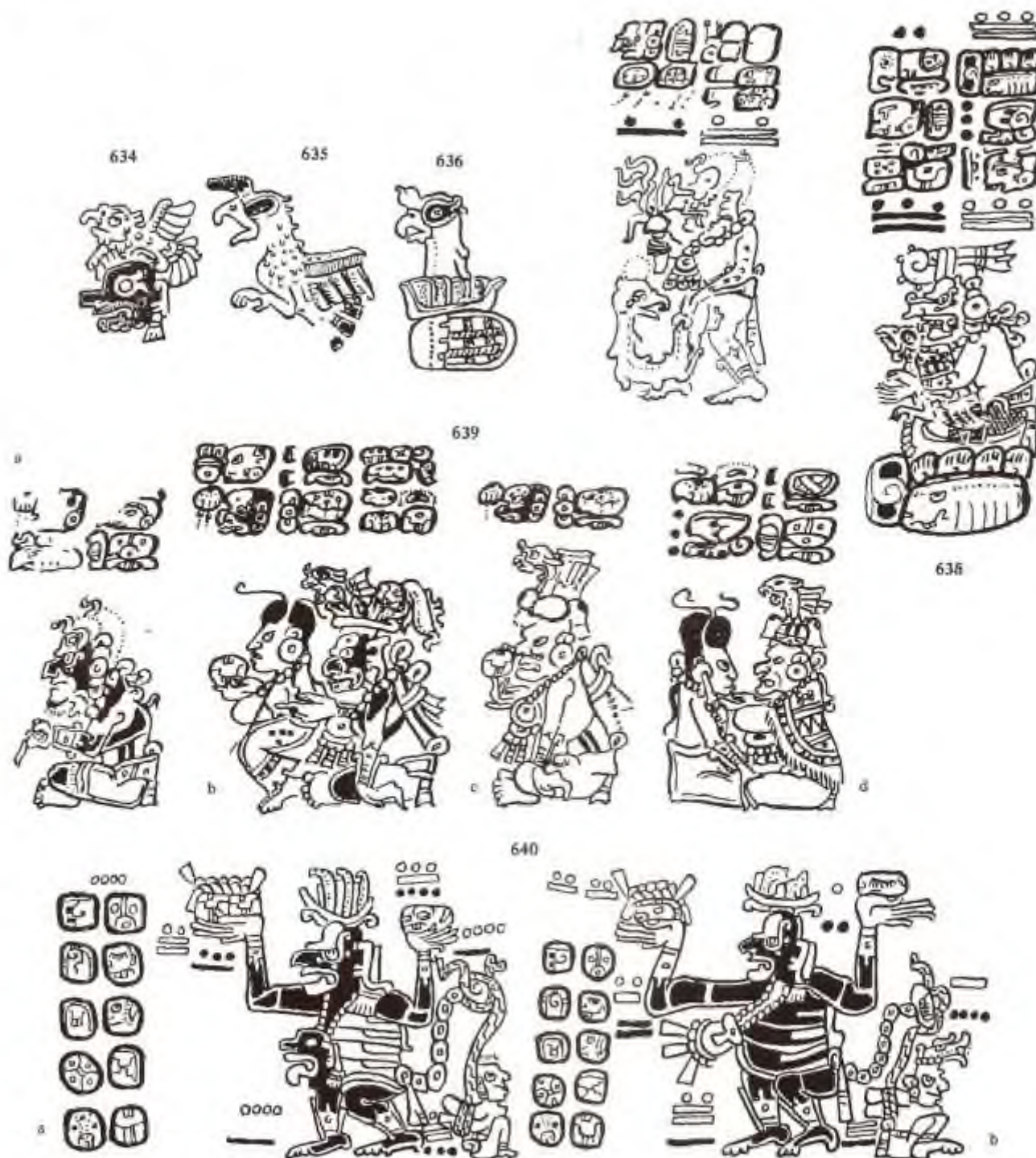
On Dresden page 74 (above, p. 219, Fig. 320) we see below a black god seated and holding spears in his hand, a well known type in the manuscripts. Resting on him is a bird that is drawn separately in Fig. 635. The bird has a short curved bill, loose bristling feathers along the neck and at the throat; its tail feathers have black tips. A black mark encircles its eye and there is a kind of horn or a large erect feather on its forehead above the root of its bill.

Clearly the same bird is drawn in Fig. 636, where the head and neck of the bird rise from a bowl containing feathers, and standing on a bundle of merchandise that /635/ Chac, the rain god of the east, carries in his boat.

And with these two I connect Fig. 634, a bird in the Codex Tro sitting on the head of another god painted black but related to the preceding. The black god is Ek chuah, the god of travelers and tradesmen. This deity is pictured dozens of times in the Tro as a traveler with a bundle on his back. The bundle of merchandise in Fig. 636 is only his symbol.

The dish containing feathers, which in Fig. 636 rests on the merchandise bundle, is a mark of this black god, as is also the bird with the erect feather on its head, which is proved by Figs. 639-640. (In Fig. 639c,d no black god is drawn, but in Fig. 639c the black god /636/ is named in the glyphs, and in Fig. 639d he is replaced by the other old deity, the moon god.) And clearly and distinctly we see the dish, or the strap, with the feathers and the bird head rising above it, and with the erect feather above the root of the bill, in the relief from Pa-





Figs. 634-635. The grouse, on the head of the black god. Tro 4\*c, Dresden 74.

Fig. 636. The grouse, on the bow of a boat navigated by the rain god Chac, lord of the east. Dresden 43c.

Fig. 637. Dresden 37b.

Fig. 638. Dresden 69b. Fig. 639a-d. The black god and his representatives. Dresden, 7a, 14c, 14b, 23c.

Fig. 640a,b. The black god with scorpion tail. Tro 34\*a, 33\*a.



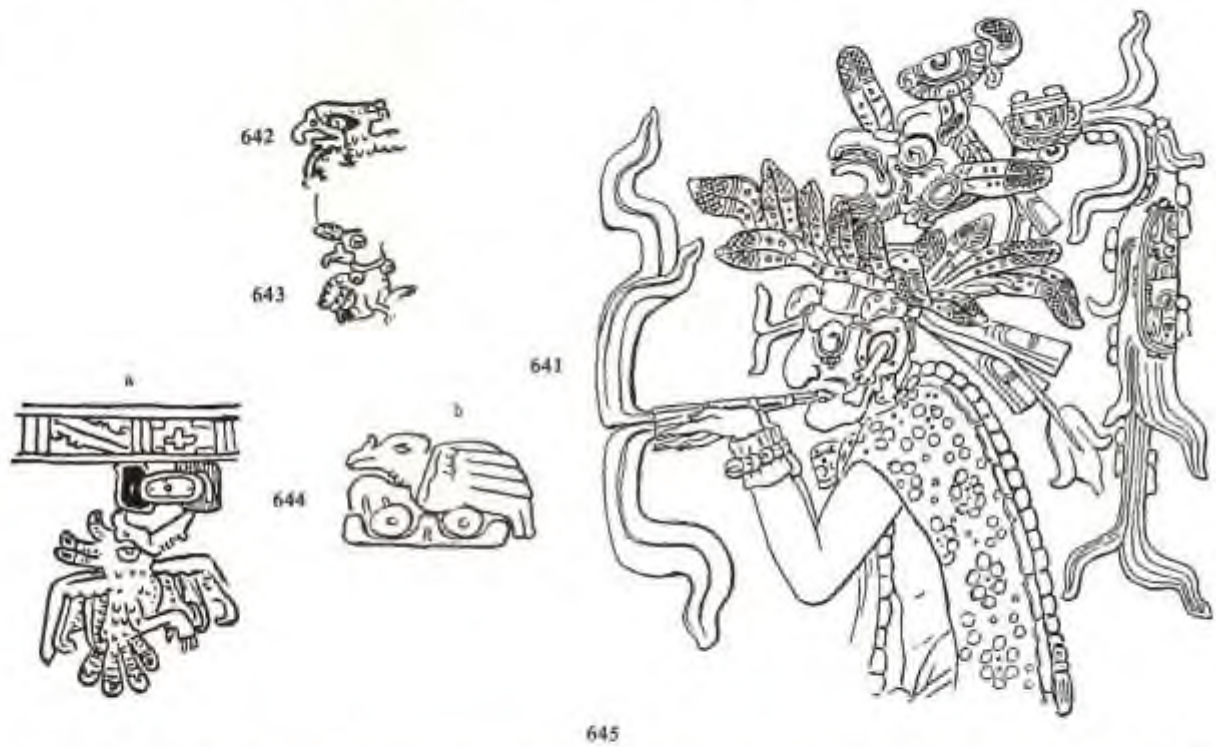


Fig. 641. Relief at the east side of the entrance to the temple cell, Temple of the Cross, Palenque. Maudslay IV, pl. 72. Figs. 642-643, Pérez 2b, 5b.

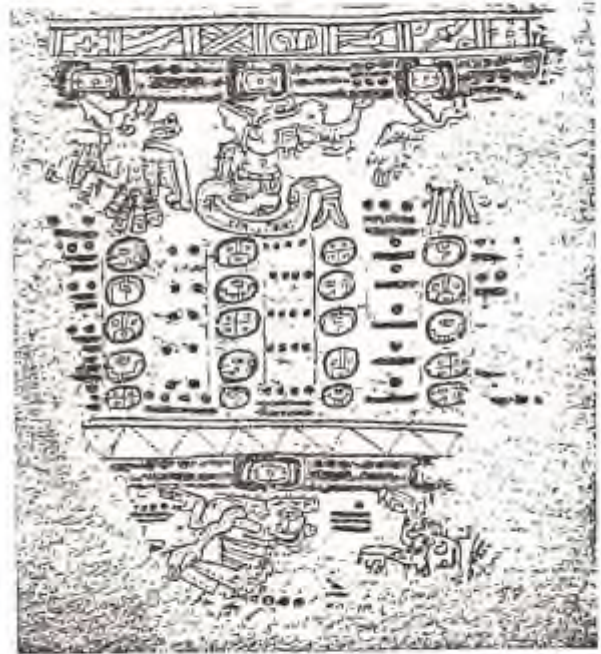


Fig. 644a. Pérez 23b. b. Casa de las Monjas, Chichen Itza. Fig. 645. The thirteen animal pictures (constellations). Pérez 24, 23b.

lenque (Fig. 641, after Maudslay).

I also add Figs. 637 and 638. Here a rain god is again pictured. In Fig. 638 he has a bird on his arm, which by its dark eye spots is connected with the birds in Figs. 634-636. /637/ In Fig. 637 the rain god holds a sort of leather bottle or bag, or a serpent which, however, apparently is trimmed with feathers and bears a bird head. The loose neck and throat feathers, which are drawn exactly as in Fig. 636, lead me to believe that the same bird is intended in both places, and I incline the more to this belief since in Fig. 637 a large protuberance is indicated-merely, it is true, by a dotted line.

/640/ Stempell sees eagles in Figs. 634-637; I consider them representatives of the penelope with feather crest, the *cox* of the Maya and the *coxoliltl* of Mexico. For the black mark around the eye, which in its form is identical with the white mark surrounding the black god's eye (Fig. 634), corresponds quite well with the mark that we saw with the *coxcotli* birds of the Mitla frescoes (Figs. 630-633). The appearance of the bird as a whole does not contradict such an interpretation, and, furthermore, horn-like excrescences above the bill are a familiar feature of the hocko hens and shaku hens, but not of eagles.

The "pheasant," *coxoliltl*, however, seems to have been the bird of the tradesmen and their god. The *coxolecaceuaztli*, the fan of grouse feathers, was the special insignia and badge of rank of Mexican tradesmen,<sup>26</sup> and the erect, fan-like neck ornament of the same feathers, the *coxol-lamamalli*, or *coxoliyo uei itepol*, is the constant attribute of Quetzalcoatl,<sup>27</sup> god of the Toltecs, of Cholula, the city of merchants, and of tradesmen in general.

Whether two pictures from the Codex Pérez (Figs. 642, 643) belong here I leave undecided.

The bird, Fig. 644a, which on Pérez page 23 appears as one of the 13 animal pictures-clearly supposed to be constellations-that accompany a series of  $13 \times 28 = 364$  days, or of  $5 \times 13 \times 28 = 1820$  days /641/ (see Fig. 645), is likewise claimed by Stempell as an eagle. The shape and color of the crown and neck feathers do indeed suggest the manner in which the eagle is pictured in Mexican manuscripts (see above, p. 237). Yet I hesitate to accept this identification.

A kindred series of animal pictures on a narrow relief band on the main front of the east wing of the Casa de las Monjas, /642/ Chichen Itza, is evidently intended to represent conjunctions of Venus with different constellations (Fig. 646). In the upper row of our Fig. 645 the order is snake, turtle, scorpion, bird, fantastic snake (or worm). It is possible that the bird drawn in these two series between the scorpion and the worm is intended for the same species.

The bird of Fig. 645 is pictured separately in Fig. 644a, and that of Fig. 646 in Fig. 644b. The latter has a horn on its forehead, and at all events could represent a vulture, but in no case an eagle. I assume that here again the grouse, *cox*, with the loose neck and throat feathers, is intended-the same bird we recognized in Figs. 634-637.

I stop for a moment to consider the elaborate picture in Fig. 641. I have already stated that the head dress of this figure is an exact homologue of the head dress of the black god of Dresden page 14c (Fig. 639b). The feathers, arranged as if in a vessel, that form the projecting crown have black tips. The bird rising above this has almost the appearance of a *moan* bird with feathers bordering the lower part of its bill and feathers standing up from the head on the left and right, like ears. I believe, however, that this is merely a special heraldic style, and that the parallel with Fig. 639b must determine the species

### 32. The Dove

The dove in Mexican is *uilotl*, among the Zapotecs, *péeti*, *máni péeti*, and in Yucatan, *zac pacal*.

Figure 647 is an indubitable picture of the dove, scarcely recognizable, however, and only slightly suggesting this bird by its blue color. This bird figure, together with a conventionalized mountain, forms the glyph of Uilotepec ("Dove mountain, Dove town"), not far from Tehuantepec. By way of surmise I should like to assume that the blue bird is intended to represent a dove, which in one case in the Borgia forms the head dress of the maize god (Fig. 648a) and in another case that of the maize goddess (Fig. 648b). This, however, is all that I am able to cite concerning pictures of this bird, so common in the country.

### 33. The Heron and the Spoonbill

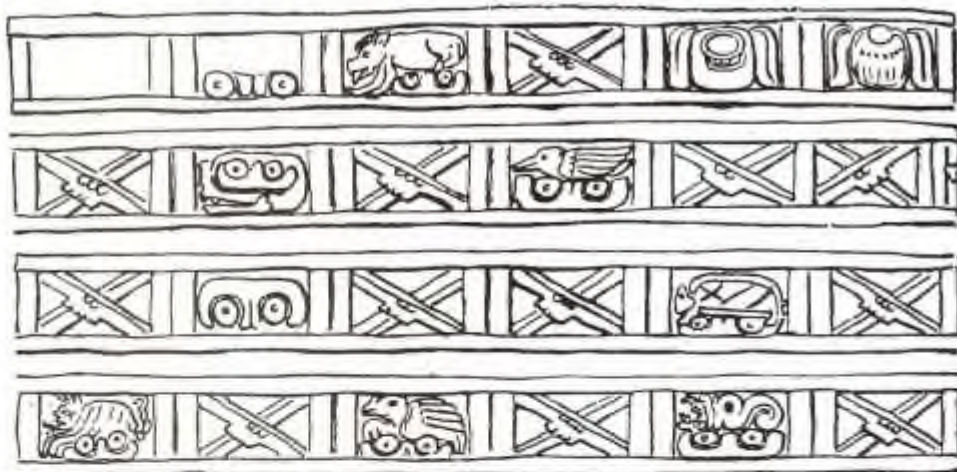
The white heron in Mexican is *aztatl*, which is literally "white one," (cf. *iztatl*, "salt," *iztác*, "white"); the white and crimson spoonbill is known under the name *tlauhquechol*.

The glyph Aztaquemecan ("Place of the idol in heronfeather robe") contains a heron head that is not very true to nature, Fig. 649. But a comparatively natural picture is the floating bird borne as insignia by the Tlaxcaltec warrior in Fig. 651. /644/ One of the four cities of the Tlaxcalteca bore the name Ticatlan, and its chief was Aztaua ("Owner of the heron"), father of the young Xicotencatl, who commanded the Tlaxcaltec army in the battles against and with Cortés.

A spoonbill is probably intended by Fig. 650, though this represents a very short-legged bird. It occurs on Co-



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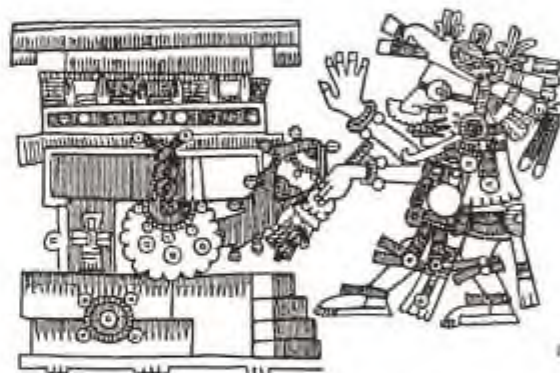
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Fig. 646. Conjunctions of the planet Venus with animal pictures (constellations). Relief band over the entrance to the east wing of the Casa de las Monjas, Chichen Itza (after Maudslay).

Fig. 647. The dove (*ullot*) on a mountain. Glyph of Uilotepec. Mendoza 14, 7.

Fig. 648a. The maize god, lord of the west, with a dove as head dress. Borgia 57. b. the maize god in quetzal head dress and the maize goddess with a dove's head as head dress. Borgia 57.

Fig. 649. Glyph of Aztaquemecan. Mendoza.

Fig. 650. The spoonbill. Laud 12.



Fig. 651. The heron of Tlaxcala, Lienzo de Tlaxcala 22.  
Fig. 652a. Dresden 36b. b. relief on the west side of the entrance to the sanctuary, Temple of the Cross, Palenque. Maudslay IV, pl. 71.

Fig. 653. Aquatic birds on pottery from Ranchito de los Animas and Cerro de Cajetes (Vera Cruz). From Hermann Strebel, *Ueber Tierornamente auf Tongefässen aus Alt-Mexiko*, pl. VII.

dex Laud 12 before the rain god Tlaloc (above, p. 210, Fig. 262).

In Fig. 652a from the Dresden, the long-necked bird holding a fish in its bill, and forming the head dress of a human figure, clearly represents a heron. A further proof of the close kinship existing between the Dresden and Palenque is found on the relief, Fig. 652b, in the Temple of the Cross, at the east side of the entrance to the sanctuary, exactly opposite /645/ that in Fig. 641. Here on the Ah bolon tz'acab mask, forming the head dress of the young god represented, is the same heron with fish in its bill. Curiously, the body of this bird is drawn as a tortoise shell with neck and head of the bird projecting at the top and legs at the bottom.

### 34. Aquatic Birds

Aquatic birds may be recognized with a fair degree of certainty on pottery of the Strebel Collection (Fig. 653). We cannot determine their species or even the family to which they belong.

1. Stempell gives the Mexican name *alo* as a "Maya" name of the arara.

2. That is, the Mendoza Codex.-F.E.C.

3. "Allí a la vista de todos bajava un fuego a mediodía y quemava el sacrificio ... como bajava volando la guacamaya con sus Plumas de varios colores." -P. Lizana, *Historia de Yucatan. Devocionario de Ntra Sra. de Izmal*, Part I, Ch. 3, folio 4 verso.

4. See my "Parallels in the Maya Manuscripts," Vol. IV of the present edition, pp. 342-44.

5. Pablo de la Llave (1773-1833) was a priest, naturalist, and Mexican politician.-F.E.C.

6. *Historia Avium Novae Hispaniae*. Rome: 1651, Tract. II, page 47. [Translation courtesy the Marianist Community, San Antonio, Texas.-F.E.C.]

7. Forstemann's commentary on this passage: "figures resembling the zero sign, probably referring to destruction"!

8. Sahagún, Bk. 11, Ch. 2, §2.

9. Greek, "the chief men," hence preeminently.-F.E.C. 10.

"The Day Signs of the Aztec and Maya Manuscripts and Their Divinities," Vol. I of the present edition, p. 157.

11. Vol. I of the present edition, pp. 154-56.

12. Menché Tinamit was Maudslayi's name for Yaxchilan. - F.E.C.

13. The numbers here have not been understood correctly either by Cyrus Thomas or by Forstemann. The starting point, of course, is the column of day signs in the middle, bottom:

*1 ahau, eb, kan, cib, lamat.*

Then follows in the center, top, the difference number [4], which leads to the column:

*5 kan, cib, lamat, ahau, eb.*

Then left, bottom, the difference number [8] and the column:

*13 eb, kan, cib, lamat, ahau;*

next, right bottom, the difference number [14] and the column:

*1 cimi, e'tznab, oc, ik, ix;*

then, left, top, the difference number [11] and the column:

*12 caban, muluc, imix, been, chicchan;*

lastly, right, top, the difference number [15] and then the column:

*1 eb, kan, cib, lamat, ahau*

should follow. But the scribe erred by one and wrote a red *thirteen* instead of a red one.

14. See "Deciphering the Maya Manuscripts," Vol. I of the present edition, p. 105.

15. It is wholly incorrect for Stempell, on the supposition that the form of this mythological bird developed perhaps from the representation of the owl, to give the word *moan* or *muán* as the name of the horoed owl or eagle owl. The word *moan* denotes merely a period of time and is now, at least, never employed as the name of a bird, and presumably at no time was it ever the name of this bird.

16. Vol. I of the present edition, pp. 117, 161.

17. Although Section 31 identifies "shaku" and "hocko" hens as members of a specific family, there seems to be no modern support either in German or English for the words "schaku," "shako," or "hocco," "hocko."-F.E.C.

18. Yax cocai mut in the Chilam Balam of Titzimin, Ya cocah mut in the Chilam Balam of Maní.

19. See note 9.

20. Antonio García Cubas (1832-1912).-F.E.C.

21. Alfred M. Tozzer, *A Comparative Study of the Mayas and the Lacandones*. New York: Macmillan, 1907, page 22. 22. John Stephens, *Incidents of Travel in Yucatan*, Vol. II, page 474.

23. *Ind. orn.*, Vol. 11, page 619.

24. Sahagún, "Cantares que decian en los templos y fuera dellos," Vol. III of the present edition, p. 261.

25. Sahagún, Bk. 11, Ch. 2, §8.

26. In the Sahagún manuscript of the Academia de la Historia it is named among the insignia of rank that King Auitzotl grants to tradesmen.

27. Sahagún, Bk. 1, Ch. 5; Bk. 12, Ch. 4 (ms., Biblioteca del Palacio; Biblioteca Laurentiana).



## REPTILES AND AMPHIBIANS

## 35. The Crocodile

/646/ The crocodile was called by the Mexicans *a-cuetzpalin*, "water lizard. Among the Zapotecs, who called the lizard *cotáco* or *cotáche*, the crocodile had a special name, *penne*, *pichijillo peoo*, or *peyóo*. The Maya tribes of Guatemala and Yucatan called it *ain*.<sup>1</sup>

To the Zapotec name *pichijilla*, which might perhaps be translated "the spiny," corresponds the Mexican word *cipactli*, having the same meaning. *Pichijilla* in the Zapotec and *cipactli* in the Mexican are names of the first day sign, and as a glance at Figs. 654-673 shows, the Mexican *cipactli* also designates a crocodile-like creature, though the interpreters sometimes give the word as "serpent-head" and sometimes as "swordfish." The swordfish in fact was known to the Mexicans, but they called it *a-cipactli*, "porcupine of the water (ocean)" and not *cipactli*.

Finally, the belief of the Mexicans that the *cipactli* was a fish from which the earth was made also corresponds to the Zapotec name. For *pe-óo* or *pe-yco* may be interpreted, I think, "animal of the inner room," "animal of the earth." Likewise, in the Maya texts, the Books of Chilam Balam, mention is made of the *ytzam cab ain*, a word that is translated in the vocabularies as "whale," but really means "crocodile of the fruitful earth" or "of this civilized world," which will come forth at the end of the world, when sun, moon, and night (the starry firmament) unite, and which, at the end of the world, will have its head struck off.<sup>2</sup>

/647/ The Mexican *cipactli* is always distinguished by a row of spines on its back; not infrequently it also has spines on its limbs (Figs. 659, 672). The resemblance to a crocodile is usually more or less clearly expressed. Compare particularly Figs. 670 and 671.

/649/ A feature peculiar to the manuscripts of the Borgia group is the under jaw, which almost without exception is lacking in these manuscripts and also in the Nuttall (Figs. 658-669, 672, 673, 675). In my opinion this is also one crocodile characteristic, as Alexander von Humboldt relates:

Where the undergrowth retreats from the stream. croco-

diles are seen lying on the sand, often eight or ten of them motionless, the jaw gaping at a right angle, they lie one beside the other ....

In some pictures (Figs. 674, 676) the *cipactli* is not drawn like a crocodile, but as a fish, with shark-like clawed tail and the indispensable row of spines on the back and sometimes a ventral row. Here the idea of the /650/ earth rising in peaks, swimming in the water (surrounded by water), has found another expression, but one fundamentally allied.

In the Maya manuscripts Stempell assumes that the monster I designated as "lightning animal with hoofs" (see p. 219, Figs. 317-320) should be referred to one or several of the species of crocodiles that are indigenous to the region in question. He may be right in this; I have also called attention to the resemblance to reptiles that is displayed by a number of these illustrations.

In spite of the fantastic drawing, the reptile-like creature on Dresden page 4b (Fig. 677) is still more suggestive of a crocodile. For this reptile covered with green scales in round fields, and with a row of spines on its back, is undoubtedly intended as an embodiment of the earth, like the Mexican *cipactli* crocodile. Two rows of glyphs are placed above this figure. The first contains the element of the dog, the lightning beast, here, however, with a round death eye and not the element *akbal* above the eye, combined with the element "flint" or "hewn stone, stone point." This glyph can probably be read simply "fire god." Next follows the glyph of the star god, the "cloud serpent" of the north (Figs. 678-681), and then the first glyph, "fire god," is repeated six times in the top row-glyphs that are clearly to be connected with the six glyphs of gods standing below them.

/651/ These gods are Itzamná, the cloud serpent of the north, the young god, the god in the shell (moon god), the death god, and the rain god Chac. Since Itzamná is usually assigned to the west, we shall therefore find it necessary to connect these six deities with the six directions, in the order west, north, east, south, below, above. And accordingly the two rows of glyphs of Fig. 677 should be read somewhat as follows:



Figs. 654-668. *cipactli*, first of the 20 day signs of the Mexicans: Fig. 654. Borbonicus; Fig. 655. Magliabecchiano 11; Fig. 656. Aubin Tonalamatl 10; Fig. 657. Telleriano-Remensis 12; Figs. 658-661. Borgia 9, 21, 3, 2; Fig. 662. Fejérváry Mayer 23; Fig. 663. Vaticanus B 50; Fig. 664. Bologna 7; Figs. 665-668. Nuttall 76, 40, 38, 9.

Fig. 669. *cipactli*, in water. Nuttall 75.

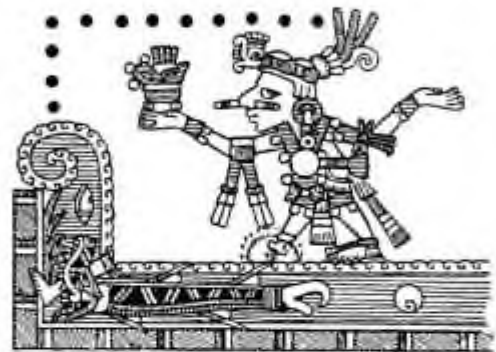
Fig. 670. *cipactli*, in water. Pedestal of an image of the rain god Tlaloc. Fejérváry Mayer 23.

Fig. 671. *cipactli*, the animal of the beginning, of generation, with the first human pair. Vaticanus B 87.

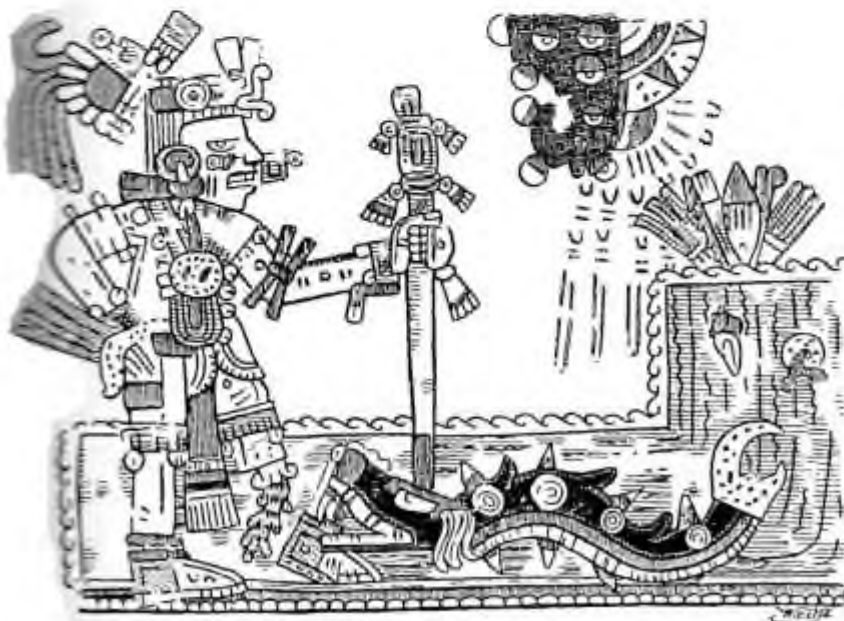
Fig. 672. *cipactli*, the ball player of the west. Borgia 51.



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Fig. 673. Tlaloc, the rain god, on *cipactli*, lord of the *ucad* years and the first Tonalamatl section. Borgia 27.

Figs. 674-676. Xochipilli and *cipactli*, the demon of the west. Vaticanus B 26, Borgia 51, Fejérváry Mayer 42.



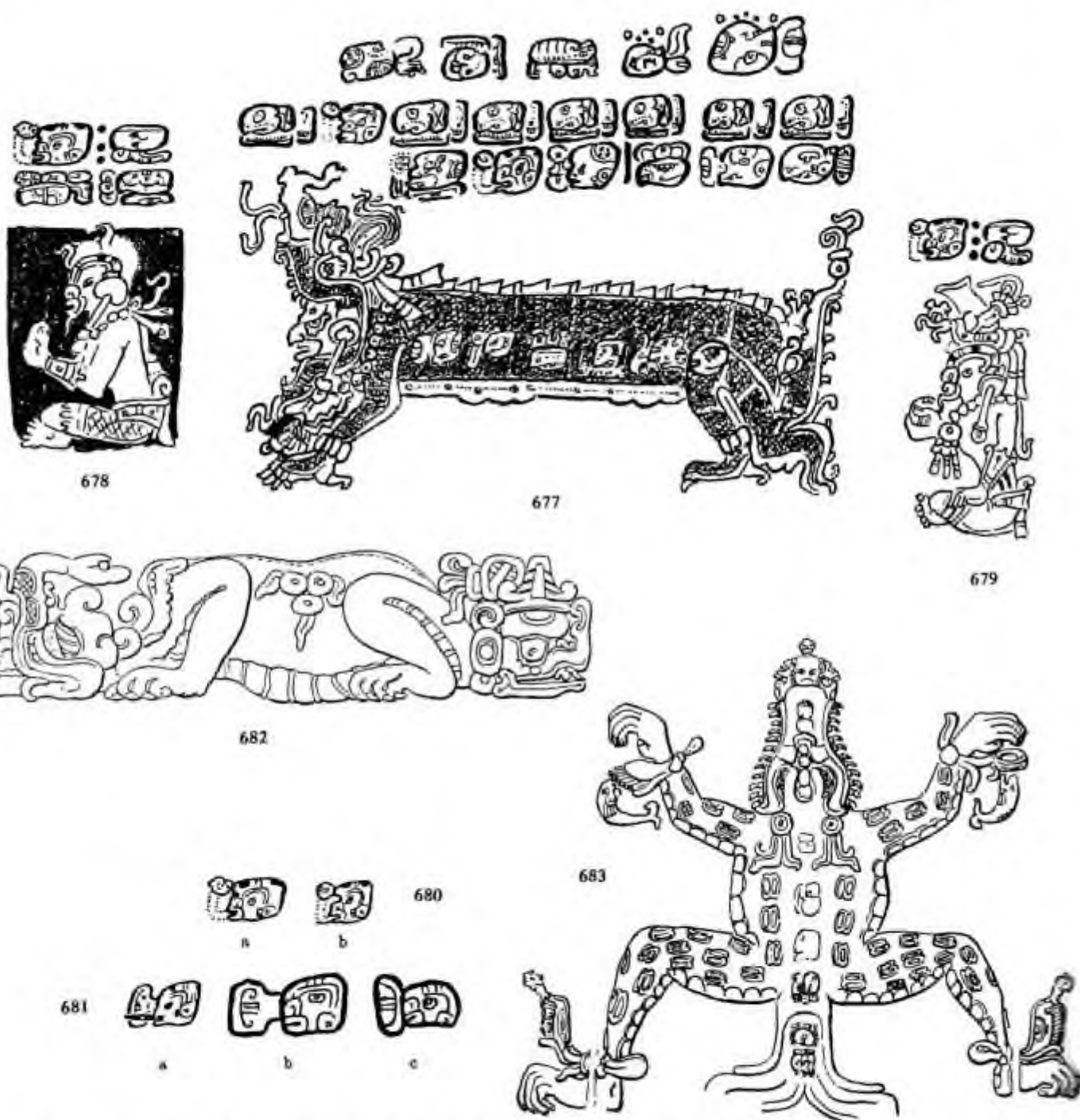


Fig. 677. The crocodile of the earth (*itzam cab ain*). Dresden 4b.

Figs. 678-679. The cloud serpent, the star god, the god of the north of the Maya codices. Dresden 5a, 13b.

Fig. 680a,b. The principal glyph of the cloud serpent, god of the north. Dresden.

Fig. 681. Glyph for *xaman*, "north." a. Dresden. b,c. Tro-Cortés.

Fig. 682. Relief on one long side of the "oblong altar" of Copan. Maudslay I, pls. 9, 114.

Fig. 683. The crocodile, Copan, Altar T. Maudslay I, pl. 95.

The true fire god (fire driller) is the cloud serpent of the north. /652/

Fire god (west) is Itzamná.

Fire god (north) is the star god or the cloud serpent. Fire god (east) is the young god.

Fire god (south) is the god in the shell (moon god). Fire god (of below) is the death god.

Fire god (of above) is the rain god Chaco

Among these deities, which are the fire and sky gods of the six directions, the crocodile designates the earth. This is evident from the glyphs on the body of this reptile, their white color contrasting with the green scales. For these glyphs are the principal and secondary glyphs of the death god, who in the above series of gods represents the lower region.

The crocodile, Fig. 677, has at its front end a jaw holding Itzamná's face, but its tail end also has the shape of a jaw. This peculiarity corresponds exactly to the method of representation at Copan, Quiriguá, Tikal, etc. The crocodiles and the feathered serpents that we find represented among these carvings usually have a front and a rear end developed into a jaw or head. Thus, for example, Fig. 682 from Copan is the exact parallel of Fig. 677 from the Dresden manuscript.

Here, however, as is generally the case, one end is represented as alive and emitting water, and the other as dead /653/ and with the elements of fire or the making of fire.<sup>3</sup> These crocodiles designated the extended earth, and these feathered serpents the sky over-arching the earth. One of the two ends corresponds to the east, the region where the sun rises and the moon dies, i.e. the region of death and fire; the other, to the west, where the new moon appears, the region of growth, origin, generation, wealth, and abundance. This reference to the cardinal points may clearly be seen in some of the stone carvings that are still standing in their original positions.

Figure 683 is a still more striking crocodile figure that extends over the front, top, and rear of a large stone at Copan (Maudslayi's Altar T). Here, it is true, the row of spines, which should run along the back, is replaced by glyphs, and the tail is bifurcated. But the body with the row of ventral scales, and especially the head with its rows of teeth, are so decidedly like a crocodile that I do not think any other identification is permissible.

Here too there is a definite reference to the earth, since the dates that are characteristic of this inscription (10 *mol* and 10 *zip*) and are placed on the back of the stone on both sides of the crocodile's tail are held by two *caban* signs developed into human figures (Figs. 684-686). But the *caban* sign, which corresponds to the Mexican *olin*, is the sign of the earth.

### 36. The Turtle

In Mexican *ayotl* means "turtle" and *ayotli*, "gourd."

*Ayotl* is the special name of the land tortoise, which is also called *xochayotl*; *ayotectli* is the water turtle. For the latter Sahagún /654/ also gives the name *chimalmichin*, "round-shield fish." The Zapotecs call the turtle *pego*, *pego-chij*; the gourd, *queto*. The sea turtle is called *pego nica tao*, "turtle of the great water."

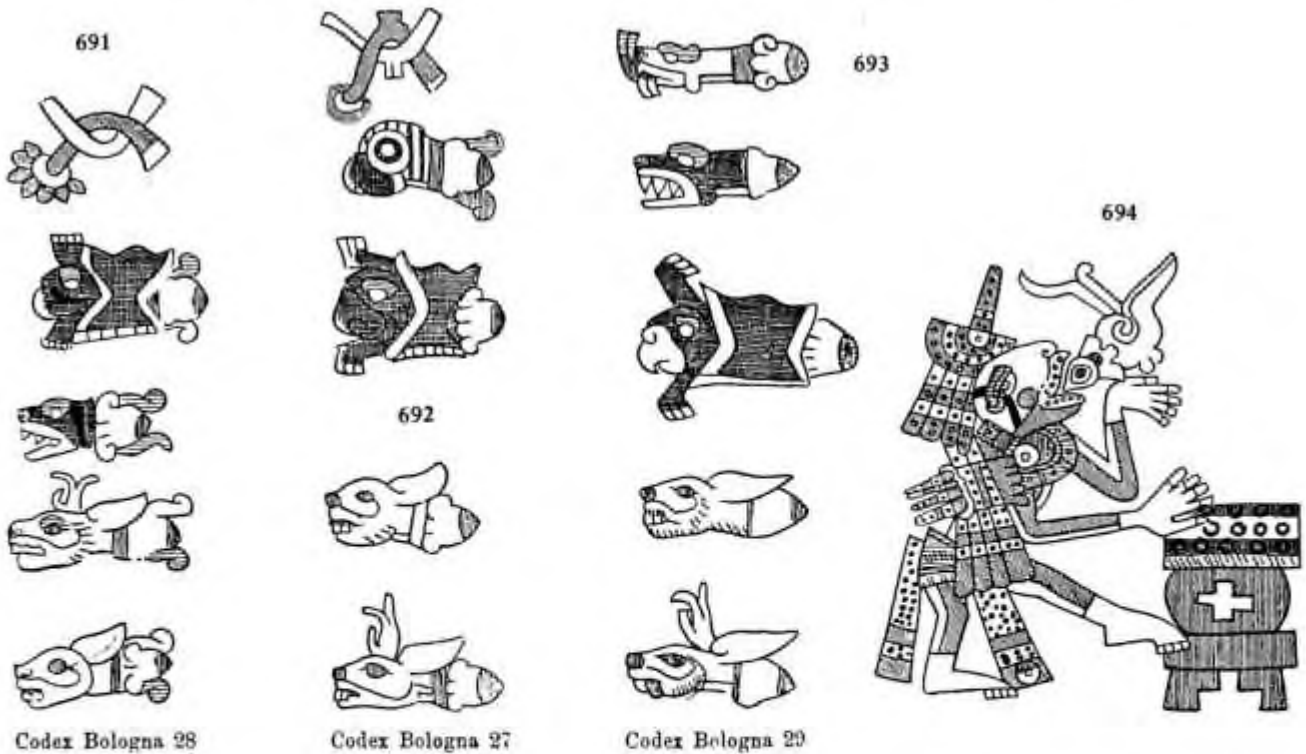
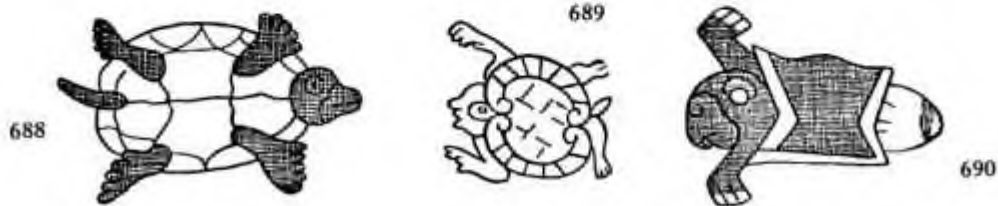
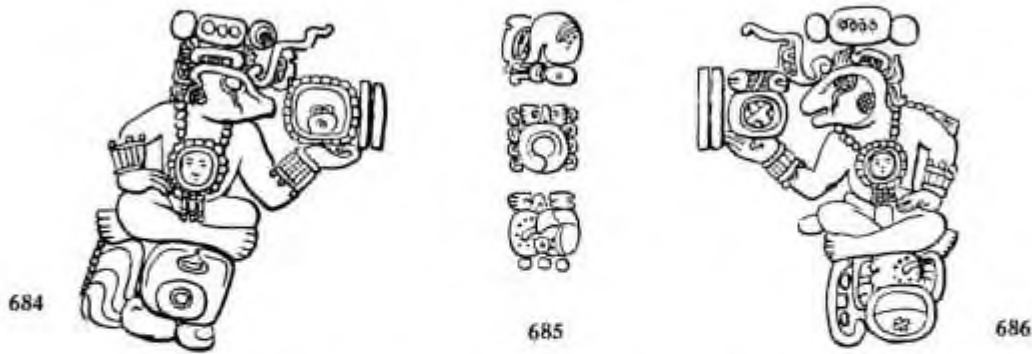
In Mayan we find the names *coc* and *aac*; the first is used chiefly in Guatemala, the latter in Yucatan. In Yucatan *coc-ac*, *xcoc-ac*, is the name given to a small water turtle. In the Mayan the gourds are called *ca*, but a dry, hard-shelled gourd is called *coc*, as is the turtle.

/656/ In the picture writings the turtle appears as the name of towns (Figs. 688, 689). In the curious representations of the Bologna reverse, evidently painted by another hand, the turtle seems to be used as a day sign (Figs. 690-693). As a matter of fact, in the list of day signs of the *Crónica Franciscana* of Guatemala, the ninth day sign, usually named *atl*, "water," is called *quiauitl*, "rain" ("aguacero"), but the nineteenth, which in the usual lists is *quiauitl*, "rain," is called *ayotl*, "turtle."

We see the turtle, or rather its shell, used as a drum (Fig. 695). /657/ The under side was beaten with an antler as drum stick. Again we find the turtle shell, and indeed drawn and colored after the fashion of the glyph *chalchiuitl*, "jewel," in the Nuttall, where it is used as the garment of a god (Fig. 696), and in the manuscripts of the Borgia group a turtle shell colored in the same way is employed as a hip mirror on the deity Xochiquetzal, the goddess of flowers, i.e. as the clasp to secure the belt knot fastened behind (Figs. 697, 698).

Finally, we see a red turtle and a serpent marked like the coral otter with Mayauel (Fig. 699), the goddess of agave, the plant from which the intoxicating pulque was obtained; and in Nuttall (Figs. 700-704) we find the turtle drawn as disguise or costume of the mythical creature that is called by the name *xiuhcoatl*, "turquoise serpent," and which is the likeness of the fire god Xiuhtecutli, and indeed from its nature must be pronounced identical with the fire god (Figs. 705-708).

I have long been cognizant of the relation of the turtle to water or to rain, and I have referred to the memorandum /658/ that Catlin<sup>4</sup> made among the Mandan Indians of Missouri, that "there are four turtles, one in the north, one in the east, one in the south, and one in the west." I have also referred<sup>5</sup> to the fact that the names that are given in the Maya lists for the nineteenth day *sign-cahogh* in the Tzeltal, *caok* among the Cakchiquel, *cauac* in Yucatan seem to be interchangeable and to be old forms of a word that means "storm."



Figs. 684-686. Glyphs on and at both sides of a crocodile tail, Altar T, Copan. Maudslay I, pl. 95.

Fig. 688. Glyph of Ayotlan. Mendoza 49, 2.

Fig. 689. Lienzo de Zacatepec.

Fig. 690. The tortoise as a day sign = *qulauitl*, "rain." Bologna 29.

Figs. 691-693. Series of day signs from the Bologna reverse: Fig. 691 (from top). *malinalli*, tortoise, lizard, deer, rabbit; Fig. 692. *malinalli*, parrot, tortoise, rabbit, deer; Fig. 693. serpent, lizard, tortoise, rabbit, deer.

Fig. 694. Turtle man, blowing a conch and beating a drum, representing the day sign *oçomàtl*, "ape." Borgia 24.





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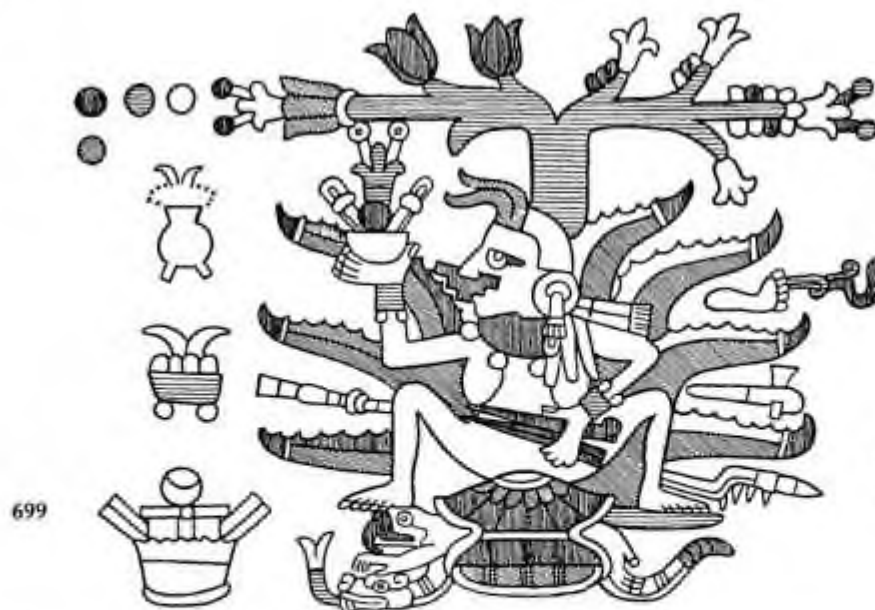
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Fig. 695. Priests making music. The first beats a drum (*dalpan weuet*), while the other swings a rattle (*ayacuchilli*) and beats a tortoise shell (*ayotl*) with an antler, Magliabecchiano f. 72.

Fig. 696. The god Eight serpent, in the shell of the jewel turtle. Nuttall 11.

Fig. 697. The goddess Xochiquetzal, with the jewel turtle shell

worn as hip mirror. Vaticanus B 42.

Fig. 698. Xochiquetzal, goddess of flowers. Fejérváry Mayer 29.

Fig. 699. Mayauel, goddess of the agave plant, sitting on a turtle. Laud 9.

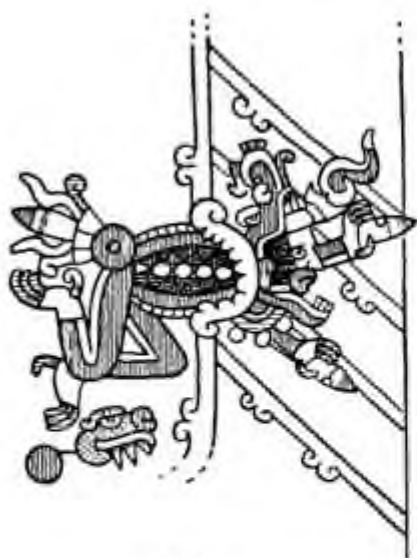
Fig. 700. The red fire turtle. Nuttall 43.



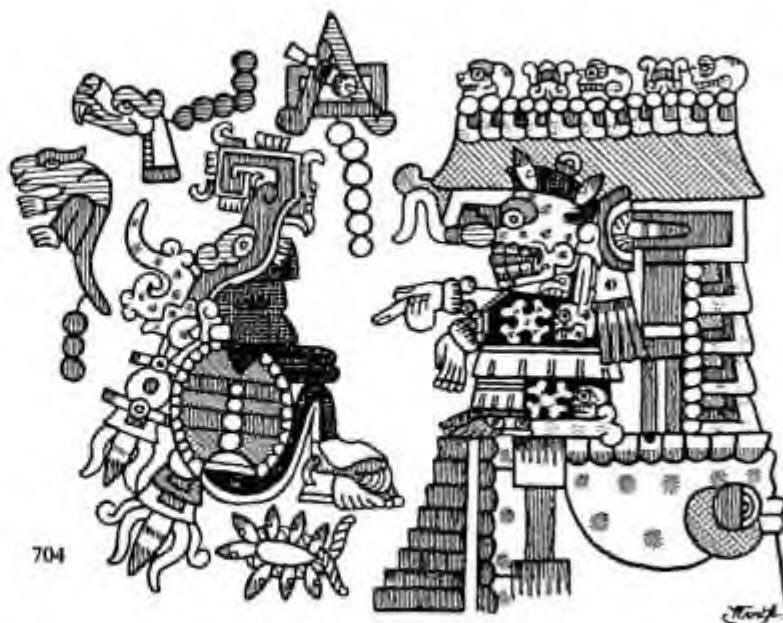
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Figs. 701-702. The fire serpent in a turtle shell. Nuttall 12, 19.  
Fig. 703. The goddess Nine reed and the god Eight deer (the fire and moon god) clad as fire serpent in a turtle shell. Nuttall

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Fig. 704. The god Three lizard, the dead god clad as fire serpent in a turtle shell. Nuttall 44.

Among the Pokonchí Stoll has recorded *cahok* as meaning "lightning," and Sapper, *cohok* among the Pokomam of Jilotepeque. And *chauc*, which is similar in sound, is still used today for "storm, thunder, lightning," among the Maya tribes of Chiapas.

The drawing of the turtle shell as "jewel," as in Figs. 696-698, would be explained from these connections, if we do not wish to think simply of the hawk's-bill turtle, the shell of which was certainly also prized as a precious material among the Mexicans. I have sought the intermediate idea between the concepts "storm" and "turtle" in the fact that the turtle shell is a natural drum, as Fig. 695 proves. The crashing of the storm, the thunder, is the /659/ celestial drum. But the pictures from the Nuttall (Figs. 700-704) suggest still another explanation.

Where the turtle appears as *xiuhcoatl*, as animal of the tire god, or-more correctly-where the animal of the tire god appears in the turtle shell, disguised as a turtle, we also find with it the sea snail shell (*tecciztli*) (Figs. 702-704), which, as a matter of fact, is always used in the Maya documents as homologous to the turtle. The sea snail, however, is the mark of the moon god, for this is the deity who is sometimes hidden in the shell and sometimes is issuing from it.

So also in the Maya manuscripts the turtle is the symbol and glyph of the old bald-headed god who is pictured in an unmistakable position with a goddess and who doubtless is the moon god. The moon, however, is the well known watery star and the lord of growth and generation. So it is also most closely connected with rain and the rain god. In the arrangement of the spheres of the ancient Mexicans, the first sphere, which over-arches the earth, is the *ilhuicatl tlalocan ypan metztli*, "heaven that is the abode of the rain god and the moon."

The fire creature, the *xiuhcoatl* (Figs. 705-708) of course has no connection as such with the turtle. It is also not a serpent; the body in the main is a reproduction and special development of the symbol consisting of a trapeze and a ray, which is the glyph for *xiuitl*, "year." The head is red /660/ or yellow with the snout end curling upward, and in the Mexican texts edged with eyes or stars and also with a kind of butterfly wings, simply denoting the tire creature.

In the pictures I have collected from Mexican sources the turtle, on the whole, is very conventionally drawn. In Figs. 690-693 and 699 the sharp toothless jaw, hooked at the point, of the alligator turtle and other American river turtles, is distinguished by having a decided resemblance to a bird's beak. On the back of the shell the row of scales along the edge of the rounded main part, which are distinguished from the others by being smaller and of a more regular shape, is usually clearly marked (com-

pare Figs. 689, 691, 692, 700-704).

In the Nuttall/661/ the row of central dorsal plates is also emphasized, though in a very conventionalized manner (Figs. 700-704). In Fig. 688 the arrangement of the ventral plates is tolerably natural, but more conventionalized in Fig. 695. Since Figs. 696-698 are intended incidentally to express another idea, only the general outline shows that a turtle shell is intended here.

In the Borgia a demon with turtle head is represented as a musician, blowing the conch and beating the drum, and as representing the eleventh day sign (Fig. 694). In the Maya manuscripts the turtle occurs in the series of five demons that are transfixed by the spear in the five Venus periods composing the planet's time /662/ of revolution. The turtle is pictured there in the fourth period as pierced by the spear (Fig. 716).

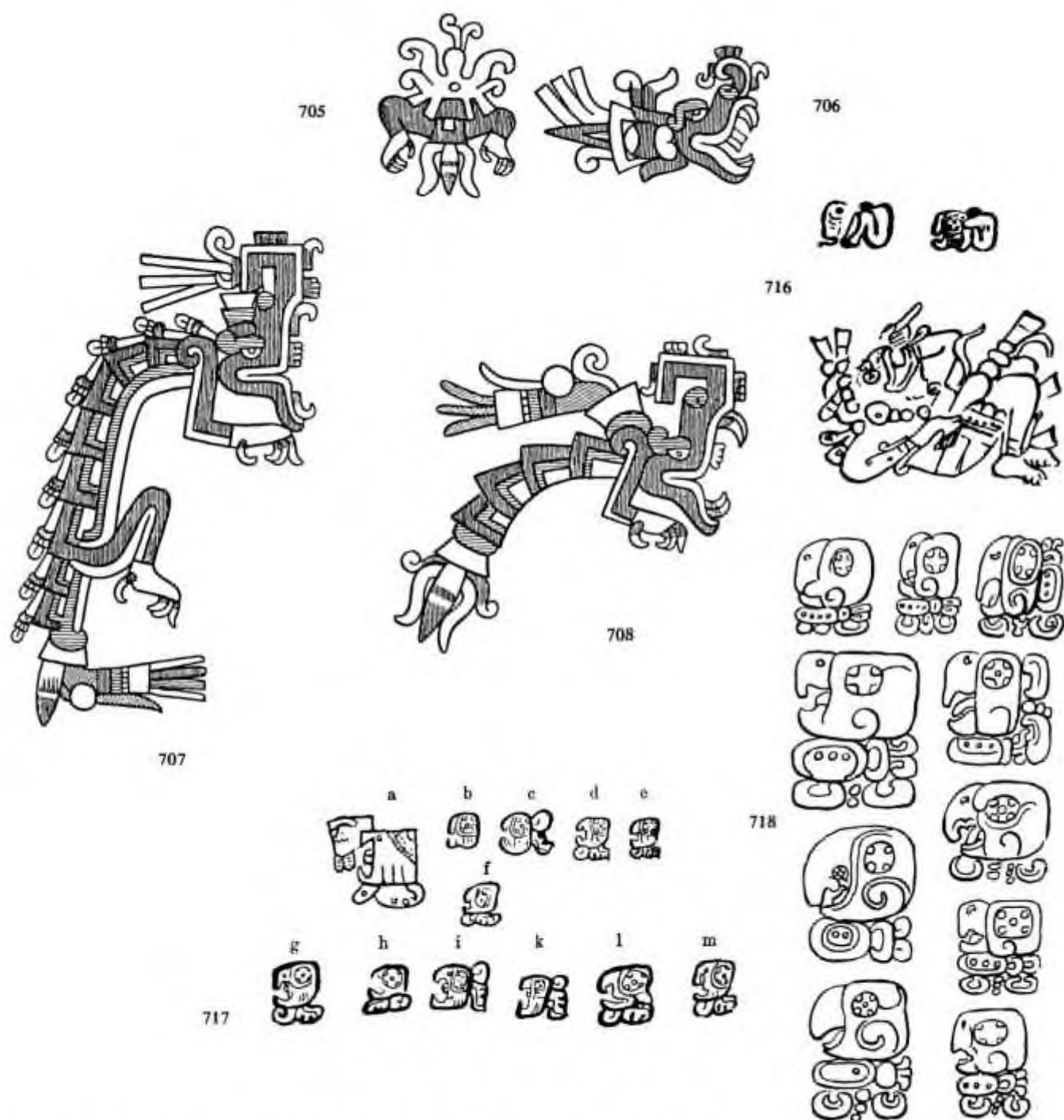
The glyph given there for the demon (see Fig. 716, second glyph) corresponds in its first and main element with a well known glyph (Figs. 717, 718) denoting Kayab, the seventeenth of the 18 *uinals*, the 20-day periods into which the Maya, as well as the Mexicans, divided the solar year of 365 days. That this glyph in fact is intended to reproduce the head of the turtle, as is also the glyphic element designated by me in Fig. 716, is seen by comparison with the usual turtle glyph, which we see, e.g. in Fig. 719 in each of the five groups of glyphs given there.

Kayab (Figs. 717, 718) is distinguished from /663/ the usual glyph of the turtle (Fig. 719, third in the group) only in having the eye replaced by an element ordinarily denoting *kan*, "yellow," but which also, apparently, appears as a substitute for the element *kin*, "sun," or for other bodies of light. Kayab means "with which one sings," and is doubtless intended as a word for the drum. In connection with the Mexican pictures I have mentioned that the turtle shell was used as a drum.

There are a number of pictures of the turtle itself in the Madrid (Figs. 719-726, 730). We see it swimming, or as if flying (Fig. 719), with the frog descending from above in the rain (Fig. 720), and with a load of *cauac* signs hanging from the sky as if it were a heavy rain cloud (Fig. 721). In Fig. 726 it is below the dog, the animal of the north and the tire god; and in Fig. 725 it looks as if the god were drawing tire from it.

In Fig. 724 it is drawn with a glyphic element that occurs in the *uinal* names *yax* and *yax-kin*, and which perhaps means "tree" or "wood." It forms the center of a curious ceremony there, in which a number of gods are drawing /664/ a rope up and down, to which the element *kin*, "sun," is fastened. Finally, it appears as a constellation in the sky (Figs. 727-728, and 645-646, pp. 268, 270, above).





Figs. 705-706. The butterfly as a fire serpent and the fire serpent (*xihcoatl*). Nuttall 35, 12.

Fig. 707. The fire serpent *xihcoatl*. Nuttall 79.

Fig. 708. The fire serpent *xihcoatl* on a mountain. Nuttall 76.

Fig. 716. The turtle, pierced by a spear of the planet Venus, in

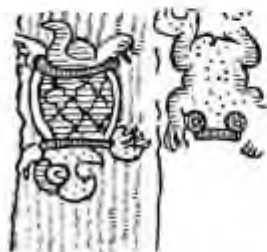
the fourth period. Dresden 49 (glyph from 24).

Fig. 717. Kayab, seventeenth of 18 *uinals* or periods of 20 days. a. Landa. b-f. Dresden 46a, 46c, 50a, 50b, 47a. g-m. Dresden 61, 61, 62, 62, 69, 69.

Fig. 718. Kayab, the seventeenth *uinal*. a-c. Palenque, Temple



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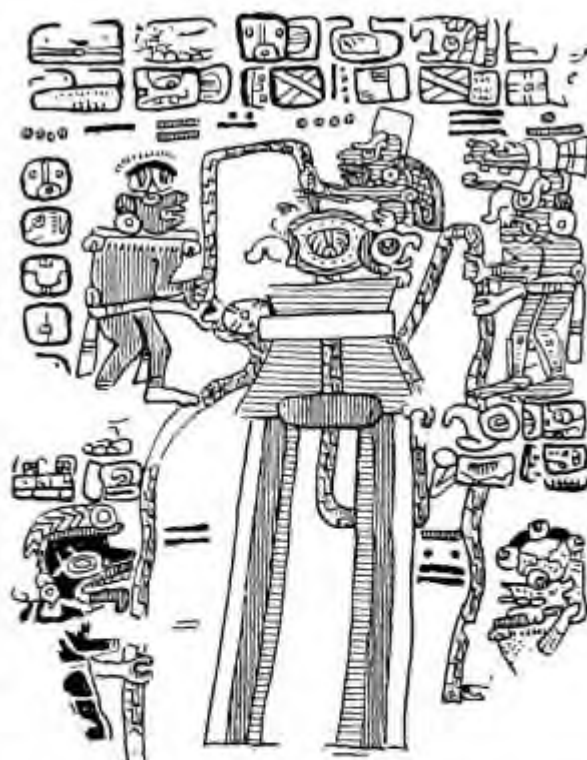
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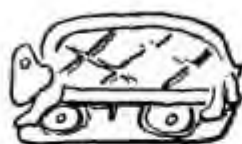
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of the Cross, I9, S17, O5. d,e. Quirigua, Stela A east side 14, C west side 19. f. Copan, Stela C7. g,h. Quirigua, Stela J75, K9. i. Copan, Stela C2. k. Quirigua, Stela F west side 32. Fig. 719. A flying turtle. Cortés 17a.

Fig. 720. The turtle and the frog coming down from the sky in the rain. Cortés 17b. Figs. 721-723. Cortés 37a, 38b, 36b. Fig. 724. Cortés 19b. Fig. 725. Tro 32\*c. Fig. 726. The dog and the turtle. Tro 25\*c.



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Fig. 727. The turtle constellation. Pérez 24.

Fig. 728. The turtle constellation in conjunction with the planet Venus. Relief on the east wing of the Casa de las Monjas, Chichen Itza.

Fig. 729. Forms of the day sign *cauac*. a. Landa. b-i. Tro. k-p. Dresden. q. Pérez. r. Tro 28d.

Fig. 730. Palenque, Temple of the Foliated Cross, B13.

Fig. 731. The turtle, symbol of the god in a shell, the moon

god. Cortés 13a.

Fig. 732. The god in a shell, the moon god, and Chac, the rain god, as a moon god. Dresden 41b.

Figs. 733-738. The old bald-headed god (the moon god): Figs. 733-735, Dresden 17a, 12c, 4a; Figs. 736-737, Dresden 21c, 21c; Fig. 738, Dresden 37a.

Fig. 739. The old bald-headed god (the moon god) fighting a war god or star god. Dresden 60a.



In all these pictures, and so also in the forms of Kayab (Figs. 717, 718) the jaws are plainly beak-like, with the ends more or less hooked. When there are nostrils-as is quite commonly the case-they /665/ are not in front on the snout, as they should be, but, as with birds, near the root of the beak. Stempell is mistaken, therefore, when on page 722 of his work he believes the position of the nostril distinguishes the macaw beak from that of the turtle. This position of the nostril is very plainly seen on the beautiful large turtle heads that are carved on the comers of Stela B, Copan (Fig. 745a,b) and in the glyph of the turtle on the back of the same stela (Fig. 747).

On this glyph, as well as on the forms of Kayab, we see that a spiral coil on the cheek, a kind of coiled fang, belongs to the glyphic conception /666/ of the turtle. We shall find the same feature later with the reptile, which is the homologue of the *chuen* sign and the glyph for *uinal*, the 20-day period. The turtle (Fig. 722) has on top of its head a pair of eyes connected by a dotted line. This is a suggestion of the tangled, nocturnally black hair having eyes (i.e. stars) of the death god.

In the Madrid manuscript the turtle shell is always marked conventionally with diagonal wavy lines intersecting. /667/ The row of border scales is usually more or less distinct. The turtle (Fig. 727), which should really be reversed-with the right (ventral) side to the left-has in the center of the back the sign *kin*, "sun." We see the same also in Fig. 738 on the turtle shell that the old bald-headed (moon) deity, who is represented there, bears on his back, as well as on the turtle shells that form the glyph of the same god in Figs. 739, 740.

By this decoration, which naturally must occupy the center of the back, and from the fact that the scales are drawn only on one side of the shell, we see that the shell of the turtle is intended to be in profile in Fig. 727. /670/ This is true also of Fig. 719 and of the glyphs in Figs. 739 and 740. In Figs. 720-726, on the other hand, the shell should be viewed from above, i.e. it is drawn *en face*.

The feet are usually drawn as webbed, spread out, paddle-like. Sometimes three and again four toes with nails are given. But of course such features are not to be used for zoological identification. I do not understand clearly what the cluster-like pendants at the sides of the shell in Fig. 722 are intended to represent.

I stated that the turtle is closely connected with the *cauac* sign, nineteenth of the 20 Maya day signs. The forms of this sign in the manuscripts are given in Fig. 729, and in Fig. 730 is the only example known to me in the inscriptions. The former contain nothing suggesting a turtle, but seem to contain the bill of the *moan* bird, clusters (cloud balls), and the wind cross or lightning

Sign. On the other hand, it would not be impossible that the *cauac* sign of Palenque (Fig. 730) was intended to reproduce a conception of the turtle head, though of a somewhat different fashion.

However it may be, there are many instances to prove that /671/ the *cauac* sign of the turtle and the turtle itself-or rather the turtle shell-appear as the equivalent and homologue of that other shell composed of a hard substance, the snail. This is true especially in the glyph of an old bald-headed god (Figs. 732-740, 742-744) who himself is sometimes pictured with the turtle shell on his back (Figs. 738-739) and sometimes enclosed, as it were, in a snail shell (Figs. 732a, 740), and who, I think, is intended for the Maya moon god. His glyph, which in Figs. 732-734, 739, 742, 744, stands first, in Figs. 736, 737, second, and in Figs. 738, 743, fourth, displays an eye with a hook or handle at each side, and below this either the *cauac* /672/ sign (Figs. 733-736, 741a,b) or the turtle shell (Figs. 732b, 739, 740) or the snail shell (Fig. 732a) or finally the *tun*, "stone," element (Figs. 738, 741c, 742-744), the whole, as a rule, connected with the numeral "five" (Figs. 733, 734, 736, 739, 742-744) or with "four" (Figs. 735, 737, 741a-c). The god himself occurs in the eleven-member series of the lightning god which, beginning with the vulture, is pictured tenth on Dresden pages 38-41b (Fig. 732), and, in the homologous series of Cortés 10 to 13a, is illustrated by the picture of the turtle (Fig. 731).

The substitution displayed here of turtle shell and snail shell may also be observed in a remarkable class of figures repeated in typical fashion on the reliefs of Chichen Itza. They are figures ornamented with the characteristic *oyoualli* rattle decoration, cut from a snail shell, of the dance gods of the Mexican manuscripts (Fig. 750) and wearing peculiarly decorated *maxtlatl* (loin cloth) ends, which again in their shape and the style of decoration resemble at least those of a dance god figure of the Vaticanus B (Fig. 750). They are not, however, represented here as dancers, but in the great majority of cases as supporting figures, caryatides, alternating here on the various monuments with female figures.

I cite first Fig. 751, which indeed is not an actual supporting figure, but after the style of one on a pillar in the famous Hall E of Chichen Itza. Let us consider next Figs. 752-755, which, as we see, are true supporting figures and sometimes seem to bear the base on which the main relief of the pillar rests, and again the beam supporting the pillar. They therefore occur as typical decorations on the bases and capitals of the relief pillars flanking the entrance into the rooms, or dividing them.

The larger part (Figs. 752-754) are male figures; Fig. 755 and a few others-but only those standing on the

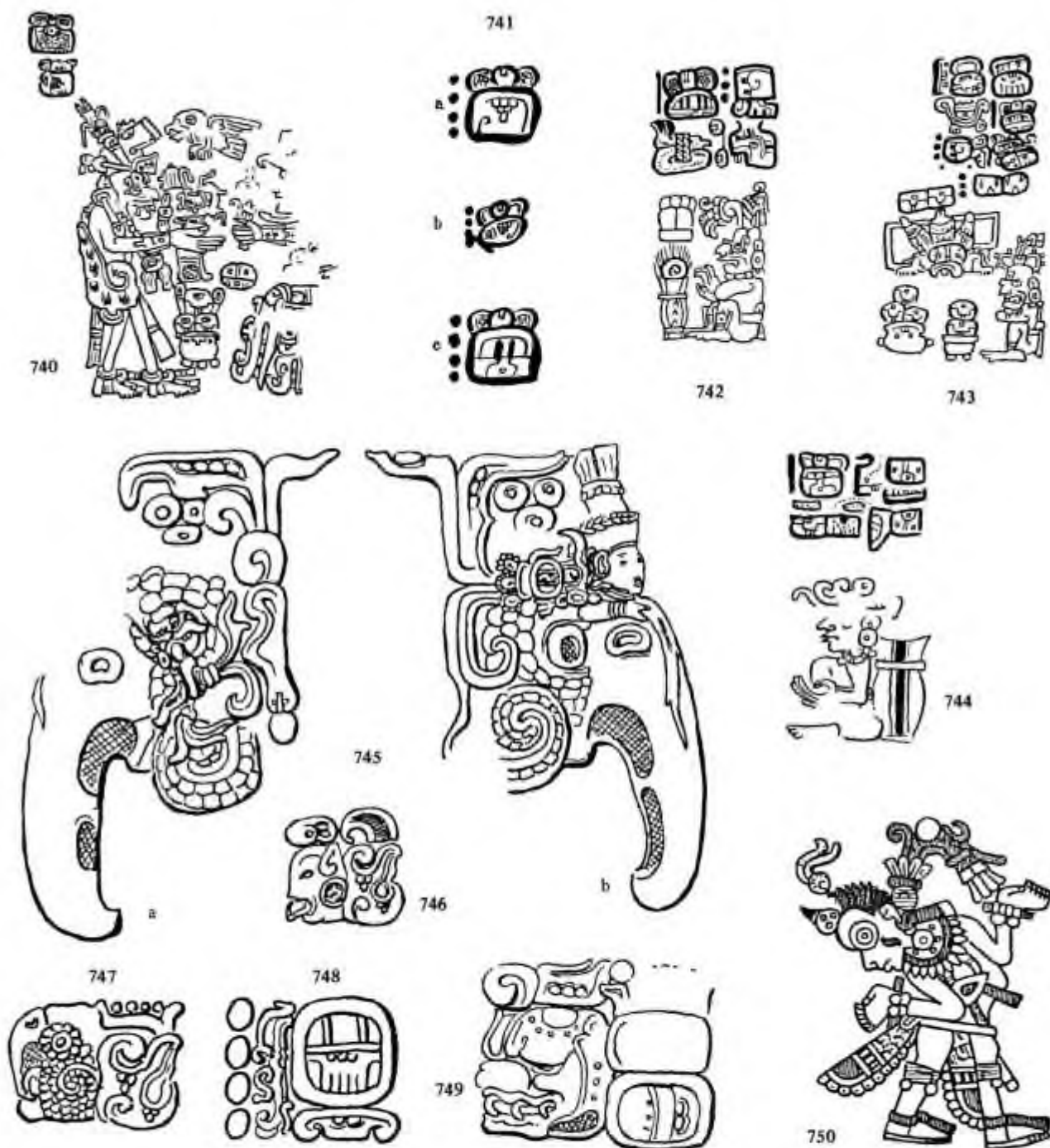


Fig. 740. The old bald-headed god (the moon god) as lord of Katun *uuc ahau* = Chicome xochitl, "Seven flower," Pérez 6.  
 Fig. 741. Glyph of the old bald-headed god (the moon god). Dresden 47b, 48c, 24.  
 Figs. 742-744. Tro 7\*b, 9\*b, Cortés 29c.  
 Fig. 745a,b. Turtle heads at the corners of Stela B, Copan. Maudslay I, pl. 37.

Fig. 746. Glyph of the lightning beast in a shell. Copan, Stela B 16. Maudslay I, pl. 37.

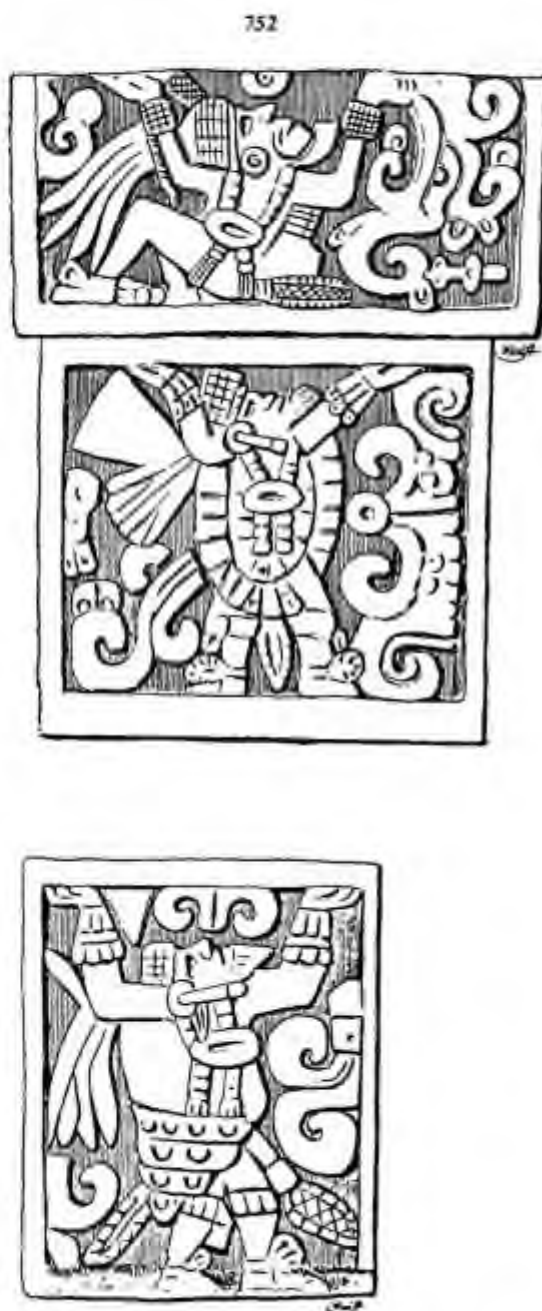
Figs. 747-749. Glyph of the turtle and the moon god(?), Copan, Stela B back. Maudslay I, pl. 38.

Fig. 750. Dancer opposite Ueuecoyotl, the dance god. Vaticanus B 52.



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Fig. 751. Turtle man. Relief on the north exterior pillar of Hall E, Chichen Itza. Maudslay III, pl. 51.  
Fig. 752. Supporting figure in relief at the upper end and cap-



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ital of one of the central pillars of the Castillo at Chichen Itza.  
Fig. 753. Lower supporting figure of the pillar west of the entrance to the Castillo, Chichen Itza.



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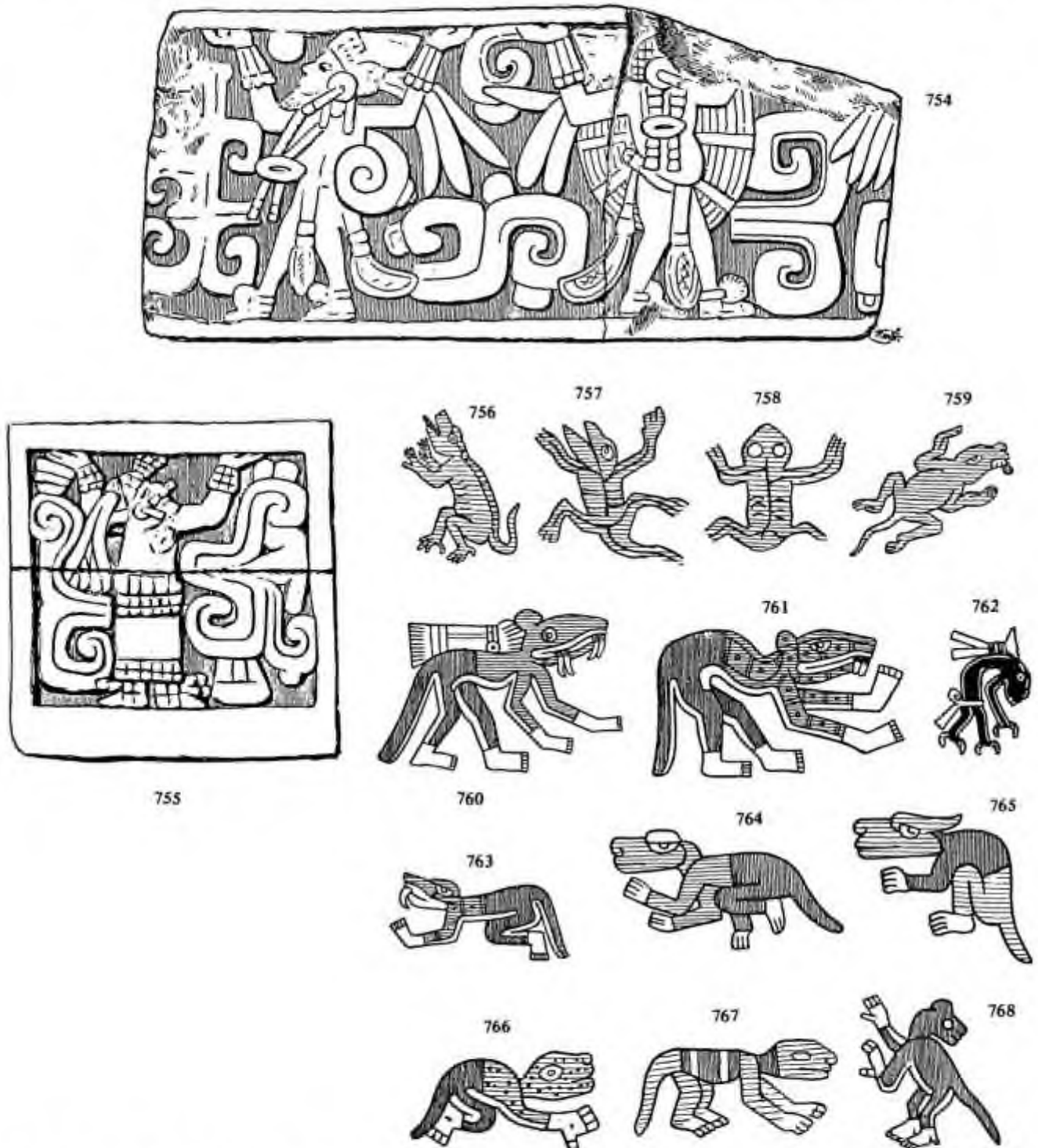


Fig. 754. Supporting figure in relief on the rear of the capital of the east serpent column of the Castillo, Chichen Itza.

Fig. 755. Lower supporting figure in relief, west side of the first pillar (standing near the north wall) of the Temple of the Large Table of the Gods, Chichen Itza.

Figs. 756-768. *cuetzpilin*, "lizard," fourth day sign of the Mexicans: Fig. 756. Magliabecchiano 11 verso; Figs. 757-758. Aubin Tonalamatl 19, 16; Fig. 759. Telleriano-Remensis 23; Figs. 760-761. Borgia 20, 18; Fig. 762. Bologna; Fig. 763. Borgia 4; Figs. 764-765. Nuttall 73, 42; Figs. 766-768. Vaticanus B 6, 48, 64.

west sides of the pillars-represent women. Some of the men are dressed in the turtle shell (Figs. 751, 752), the ventral side of the carapace facing to the front, as a rule, while others sit in a snail shell (Figs. 753 and 754, left figure), and finally, others stand in front of a kind of spider's web (Fig. 754, right side). All the forms known to me are pictured and described in my article on the ruins of Chichen Itza (Vienna Congress of Americanists).<sup>6</sup>

### 37. The Lizard

In Mexican the lizard is *cuetzpalli*, *cuetzpalin*, or *topitl*, *topitzin*. The different kinds are as follows: the iguana, *quauhcuetzpalin*, "tree lizard," the rock lizard, *tecuetzpalin*, the black species, *tlilcuetzpalin*, and the "sleeper," *cuetzpalcochiton*. I mentioned above that the crocodile was simply called "water lizard," *acuetzpalin*.

/673/ The monitor lizard (*Tejus tejuixin* or *Tejuixin monitor*) is called by a special name, *tecuixin*. Formerly it was believed that it warned the lizards of other dangerous animals. Furthermore, the peculiar form of the toad lizard (*Phrynosoma orbiculare*) was called *tapayaxin*, and the poisonous lizard, the "scorpion," the gila monster (*Heloderma horridum*) was called *acaltetepontli*, "boot knee."

/674/ The Zapotecs call the lizard *cotaco* (*gurago*), the black variety *cotaco nagáha*, the green, *cotaco peche*, and the edible iguana, *cotache* (*gorache*).

In the Mayan we find the names *toloc* and *hpa'ch* given to the lizard or iguana, while *Heloderma horridum* is *ix hun pp 'el kin*, because the Maya believed that to touch this animal would cause death within 24 hours.

The lizard is the fourth of the 20 Mexican day signs, and denoted to them the power of begetting, generation, or, if you wish, unchastity,<sup>7</sup> like the European skink, of which it was related "*venerem mirum in modum dicitur excitare*." In the Borgia, pages 17, 53, where the 20 day signs are connected with the parts of the body, the lizard is placed at the penis. Compare also /675/ Figs. 771, 772, of Codices Vaticanus B and Laud, with the parallel picture in the Borgia (Fig. 773).

The obscene act, plainly pictured in Fig. 773, is unmistakably illustrated in Figs. 771, 772, by the lizard, which the man holds under his arm. As a likeness of the fourth day sign "lizard," Ueuecoyotl, "Old coyote," the dance deity, the god of pleasure, is therefore also represented in the manuscripts.

In Fig. 774 the lizard replaces the rabbit, which is given in the parallel passages of the Vaticanus and Borgia seized by the eagle in the jaws of the serpent (see P. 243, Fig. 444a-c). Like the rabbit, the lizard must, therefore, represent the moon. And the same will also be

true of Fig. 775, where on the ball ground it faces a god painted in light colors. The small circles placed in a row along the entire back of the lizard are evidently intended to denote eyes or stars and to characterize it as the celestial lizard.

From this two-fold meaning it follows also that the lizard is the animal of the rain god, of vegetation. Hence it is said of it that it designates "abbondanza dell' acqua."<sup>8</sup> And therefore, too, where in the Borgia Tlaloc, the rain god, is represented as cultivating the ground (Fig. 776), there is pictured as his opponent, opposite him, not the customary warrior animals, the eagle and the jaguar, but two animals that, it is true, are somewhat doubtful but evidently can only be reptiles and are probably intended for lizards.

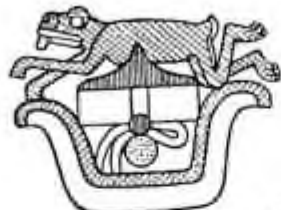
In these pictures of the Mexican manuscripts the lizard is fairly well characterized by the four legs, long tail, and long earless head. /676/ The mouth is usually closed. But in the day sign of the reverse of the Bologna (see p. 278, Figs. 691-693) and in Fig. 722 of the Laud, the mouth is open and bordered with small pointed teeth. A crest of spines along the back, such as on the iguana (*Ctenosaura* sp.), is never present in the Mexican manuscripts.

In the manuscripts the color of the Mexican region, specifically, is plain blue (Figs. 756-759). But this color is not to be regarded here, I think, as denoting that of water, but the color of horn, hard skin. In one place in the Vaticanus (Fig. 768) the animal is red, in the Bologna, black (Fig. 762, and above, p. 278, Figs. 691-693). The usual coloring in the Borgia group /678/ (Figs. 760761, 763, 766, 769, bottom) and also in the Nuttall (Figs. 764-765), however, is half blue and half red.

This, of course, cannot be a reproduction of actual coloring, but must have a mythological meaning. We shall probably not err if we recall the same bi-coloring in the case of the day sign *olin*, which illustrates the ball ground and the dark and light orbit that the heavenly bodies, sun and moon, have to travel, as well as Tlillan Tlapallan, the Land of the black and red colors, and all the mythical relations that adhere to this land.

In a picture from the Bologna (Fig. 762) the lizard is represented as a manikin, clad in a breechclout and with a bow as neck ornament. A similar neck ornament also appears with the lizard in Fig. 760, from the Borgia.

Lizards with a spiny crest on the back, which, as I stated, are not found in the Mexican manuscripts, occur as characteristic decoration on pottery from Ranchito de las Animas, in the State of Vera Cruz (Fig. 777). Also, it seems impossible that a crocodile is intended here. This is contradicted by the design in front of the mouth, which should be explained, I think, as a protruding



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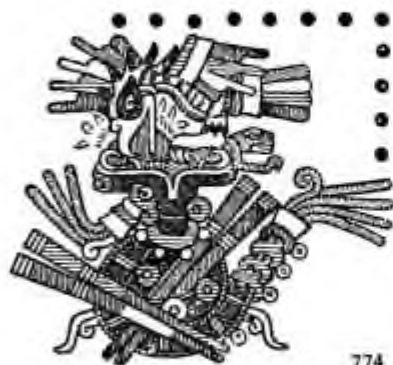
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Figs. 769-770. The lizard (*ce cuetzpalli*) and the frog (*ce cipactli*). Fejérváry Mayer 22.

Fig. 771. Vaticanus B 33.

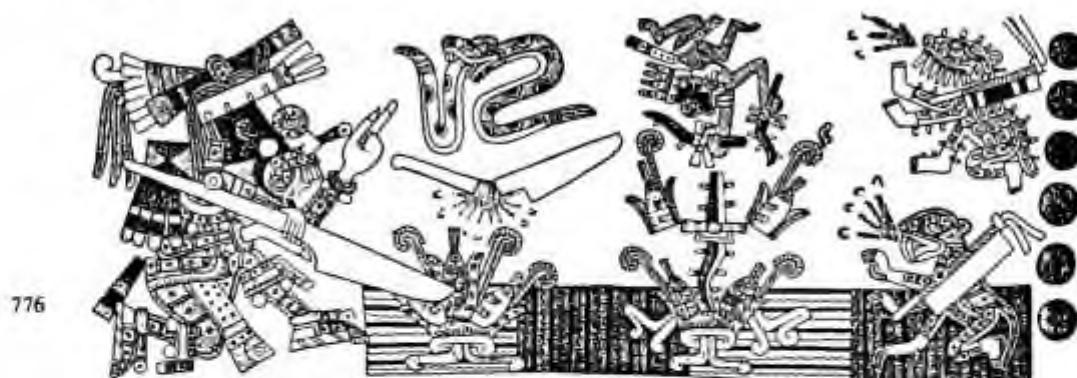
Fig. 772. Laud 37.

Fig. 773. Borgia 59.

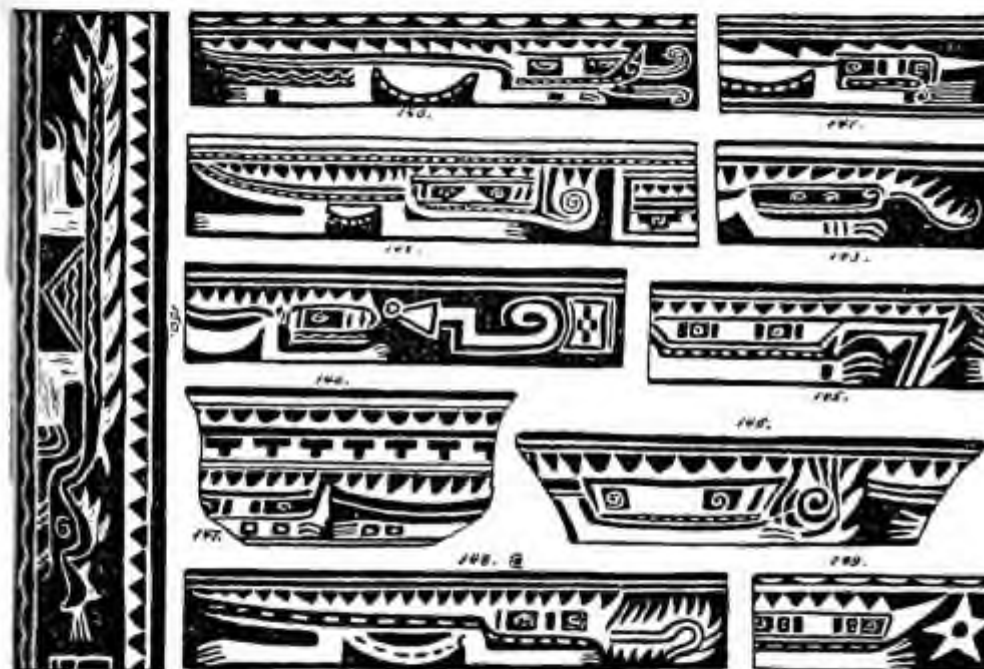
Fig. 774. The lizard, in the jaws of a serpent, the moon. Fejérváry Mayer 42.

Fig. 775. The lizard, on the ball ground. Fejérváry Mayer 29.





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Fig. 776. Borgia 20.

Fig. 777. The iguana, on pottery from Ranchito de las Animas (Vera Cruz). From Strebel, op. cit., pl. XV.

Fig. 778. The glyph *kan*, fourth Maya day sign.

Fig. 779. Cortés 6a.

Figs. 780-782. Dresden 29b, 30b, 43c.

Figs. 783-784. Tro 8\*b, 6\*b.

Figs. 785-787. Dresden 27b, 34a, 29b.

Figs. 788-789. Cortés 3b, 22.

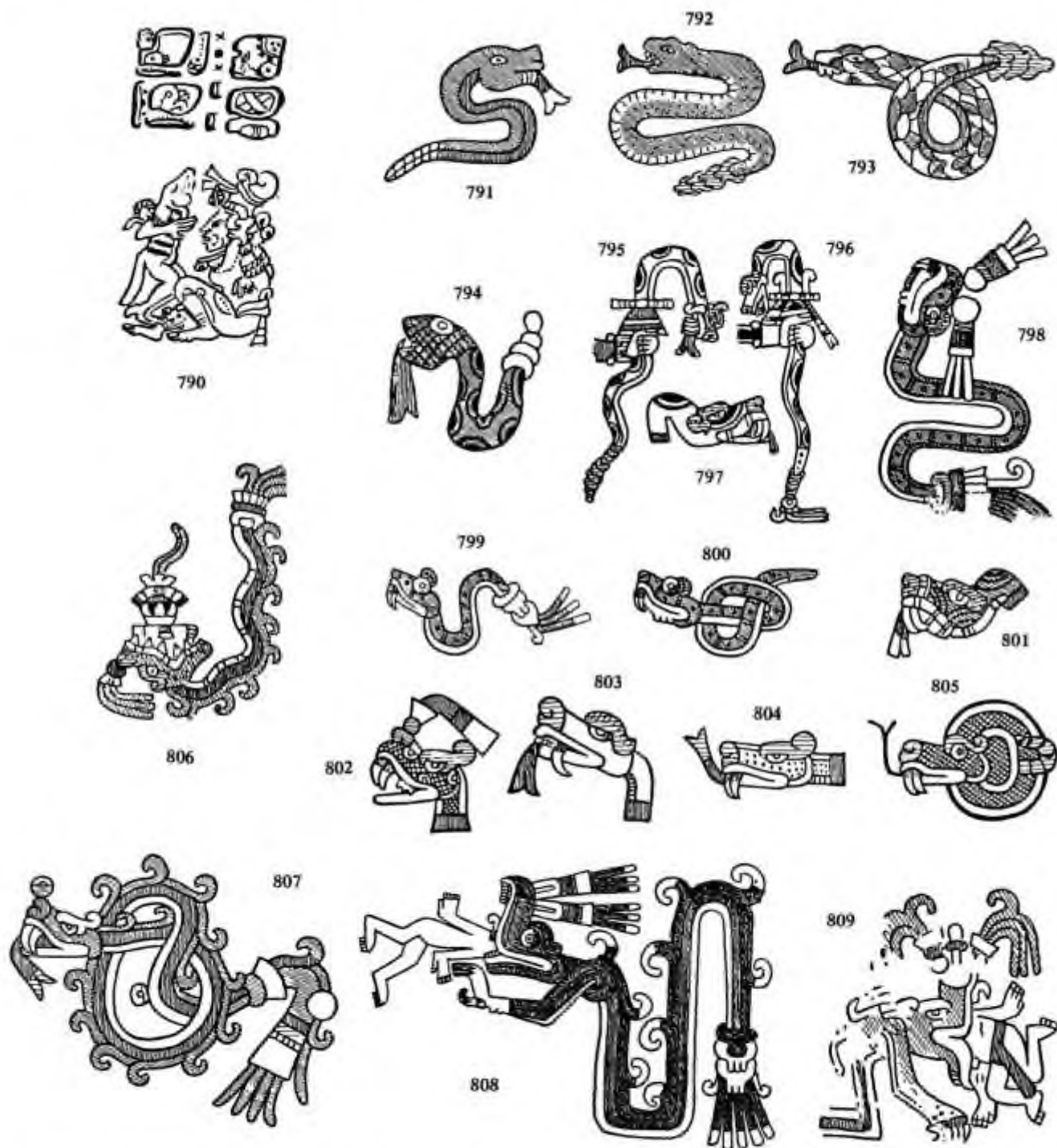


Fig. 790. The god with the *chicchan* spot and the lizard. Dresden 3.

Figs. 791-805. *coatl*, "serpent," the fifth day sign of the Mexicans: Fig. 791. Telleriano-Remensis 23; Figs. 792-793. Magliabecchiano 11 verso, 75; Fig. 794. Aubin Tonalamatl 10; Figs. 795-797. Vaticanus B 45, 46, 45; Figs. 798-800. Borgia 11, 1, 4;

Fig. 801. Vaticanus B 30; Figs. 802-803, Nuttall 75, 36; Figs. 804-805. Fejérváry Mayer 23, 5.

Fig. 806. Quetzalcoatl, the feathered serpent. Vaticanus B 21.

Fig. 807. The feathered serpent (in water). Nuttall 75.

Figs. 808-809. Quetzalcoatl, the feathered serpent, with Xipe Totec. Borgia 67, Vaticanus B 62.

tongue. Strebel is right when he explains these as iguanas. The *en face* heads of the majority of these pictures of a creature, with body drawn generally in profile, is curious and very striking.

In the Maya territory the fourth day sign is no longer called by "lizard," but, apparently, with names (*ghanan*, *kan*) expressing only the idea that these tribes thought was embodied in the lizard-generation, abundance, wealth. The glyph (Fig. 778) is hard to explain. It would not be impossible, however, that it is intended simply to reproduce the eye and profile mouth line of a lizard or iguana. In the Maya manuscripts the glyph *kan* everywhere seems to mean "maize."

The lizard itself occurs regularly in the Maya manuscripts among the oblations, above a *kan* sign, i.e. a kernel of maize or an ear of maize, curved, lying in a bowl or a pot (Figs. 779-784, 788-789). The fish is the oblation of the south, the turkey of the east, the deer of the north, and the lizard of the west. Of Course, only an edible lizard can be meant, and the iguana with the spiny crest along its back, /679/ and body-marked bands of darker color, is quite possible. In other pictures (Figs. 785-787) only the head and the feet of a lizard are drawn, growing out of a *kan* sign, or occupying, as it were, the position of the eye of the *kan* sign.

A lizard in full figure-but without a crest-occurs on Dresden page 3, in front of the god with the *chicchan* spot (Fig. 790). Both figures, the god and the lizard, are drawn here as captives, with arms bound at the back.

### 38. Serpents

The general name for serpents in the Mexican language is *coatl*. The following are named as nonpoisonous: the water snakes, *acoatl*, and the boas (*macacoatl*, "deer snake," *cincoatl*, "maize snake"), also the *tzicatl inan* living in the nests of ants, which writers have pronounced a serpent, but probably does not belong to this class.<sup>9</sup> Finally, the prettily colored, though poisonous but quite harmless coral viper (*tlapapalcoatl*), and the rolling snake (*metlapilcoatl*).

The poisonous snakes in general are called *requani coatl*, "biting snakes" or "beast of prey serpents." The rattlesnake occupies first place. The tail rattle in Mexican is *coacuechtli*. But curiously there is no name for the animal *having* the tail rattles, in which this characteristic is expressed. The chief name for the rattlesnake is *tecuhllacocauhqui*. The description and picture, given in the Roman edition of Hernández, seems to fit the common species, *Crotalus horridus*.

Other names of serpents that are said to have rattles are *chiauitl* and *tleua*. The former is described as brown with black spots, and the latter as brown with red belly.

The serpent designated as white, *iztac coatl*, is described by Sahagún as having rattles and by Hernández as without rattles, but considered poisonous. The picture given by Hernández shows a reptile similar to the whipsnake. Very similarly, this is also the snake pictured under the name *nexua* in Hernández.

In the Zapotec the serpent is *pela*, *pella*, *beelda*. The water snake is *pella yoo-nica*, the anaconda, *pela-yoce*, the small red snake, *xi-cáa pitáo-mani*. The poisonous snakes are called *pela-tóxo*, *pela totija*, the rattlesnakes, *pela-copijce* or *pela-pixóno*, from the tail rattles that are called *xono*, *xi-xono-pela*. For another kind of poisonous snake the name *pela-pillee* is given.

In the Maya language of Guatemala the serpent is *c'umatx*, in Chiapas, *chan*, and in Yucatan, *can*. A general name for poisonous /680/ snakes among the Yucatecs is *kokob*. The rattlesnake is *tzabcan*, "rattle snake" or *ahau can*, "king snake"; *tzab* is the word for tail rattles and *tzab* or *tzab-ek* ("rattle star") is the name of the Pleiades.

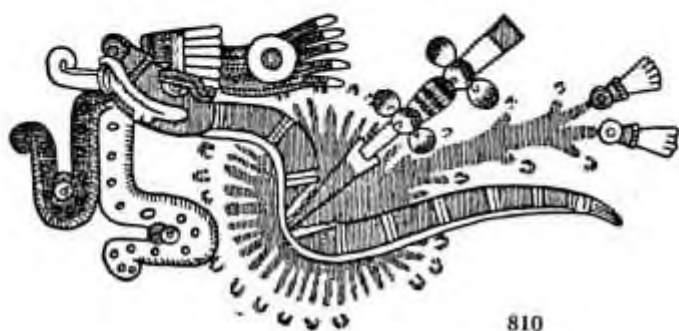
Among the Mexican-Central American tribes the serpent is also regarded as a creature endowed with special powers, supernatural, divine, /681/ and usually uncanny. Among the various animals, e.g. which the Zapotecs considered as disastrous omens, the serpent stood first, and after it came the eagle owl, owl, mole, scorpion, etc. The peculiar form and mode of locomotion of the serpent led to different natural bodies and natural phenomena-water, lightning, etc.-being contemplated under its picture.

The fifth of the 20 Mexican day signs, which is called *coatl*, "snake," (Figs. 791-792, 794, 797-805) is therefore illustrated by the picture of the water deity Chalchiuhtlicue. A snake dad in the green tail feathers of a quetzal bird is pictured in water (Figs. 806, 807) and it occurs as determinative with the god Xipe Totec, apparently as a likeness of the moon, or, more correctly, perhaps, of the dark moon emitting a rabbit from its jaws (see p. 202, Fig. 219) or swallowing a man (Figs. 808, 809).

The *tlapapalcoatl*, a red- or gay-colored snake, drawn after the style of the coral viper, which is called by the Zapotecs, as I stated, *xicáa pitáo-mani*, "animal of the vessel of the god," i.e. the vessel for sacrificial blood, seems to represent the precious liquid, the blood of castigation, blood /682/ in general (Figs. 810-814), and is also pictured with the sinner, the female sinner, and the goddess of sin (Figs. 815-820).

/683/ Where the serpent stands for the fifth day sign, rattlesnakes are preferably drawn green (Figs. 791-792) or green or yellow with large black spots (Figs. 794, 797, 801). Such a snake also occurs in the Vaticanus B





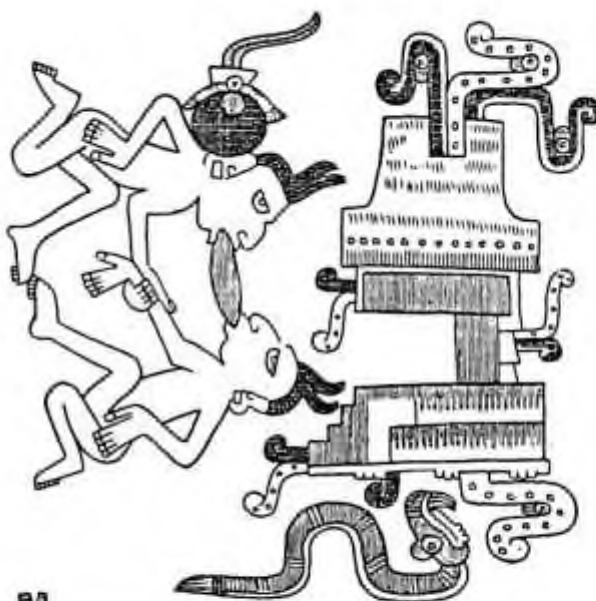
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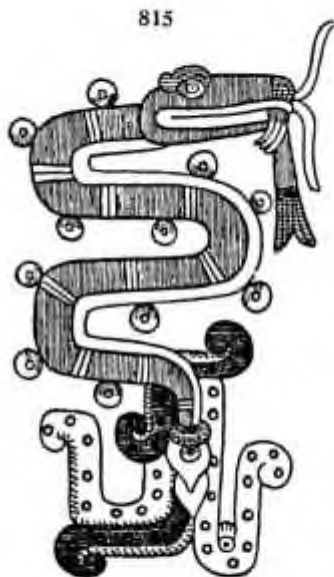
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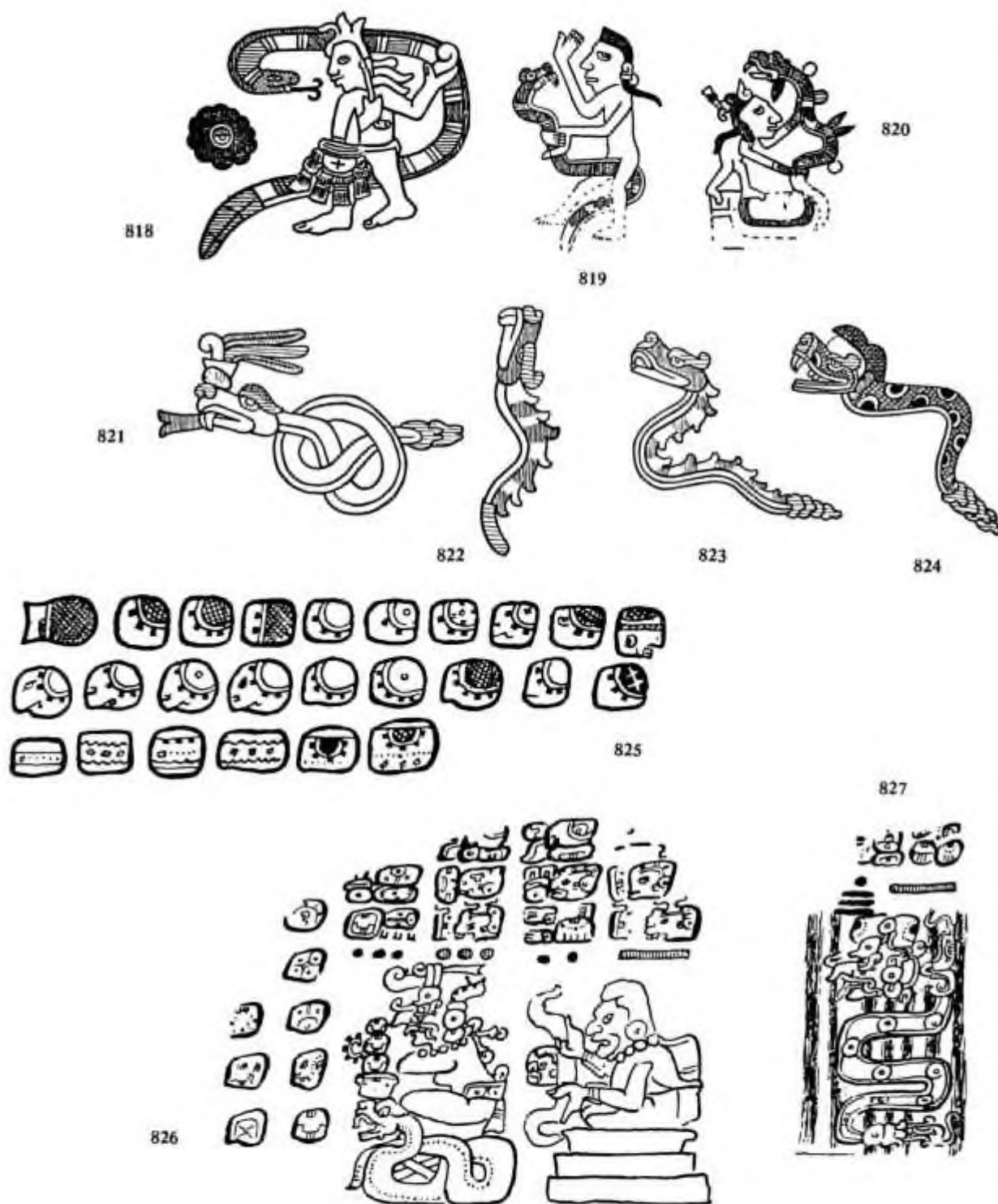
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Figs. 810-812. *Ilapalcoatl*, the red serpent, with Quetzalcoatl. Borgia 9, Vaticanus B 28, 87.

Figs. 813-814. *Ilapalcoatl*, the red serpent, with Tonacatecutli. Borgia 61, Vaticanus B 49.

Figs. 815-816. *Ilapalcoatl*, the red serpent, with Tlaçolteotl. Borgia 68, Vaticanus B 61.

Figs. 817-820. The adulterer doing penance: Fig. 817, Borgia 3;



Figs. 818-820. Borbonicus 17, Borgia 2, Bologna 2.

Figs. 821-824. Nuttall 29, 45, 54, 58.

Fig. 825. Forms of the glyph *chicchan*, the fifth Maya day sign.

Fig. 826. The rain god Chac, on a cloud formed of snakes. Dresden 42a.

Fig. 827. Chac, the rain god, as a serpent. Dresden 36a.

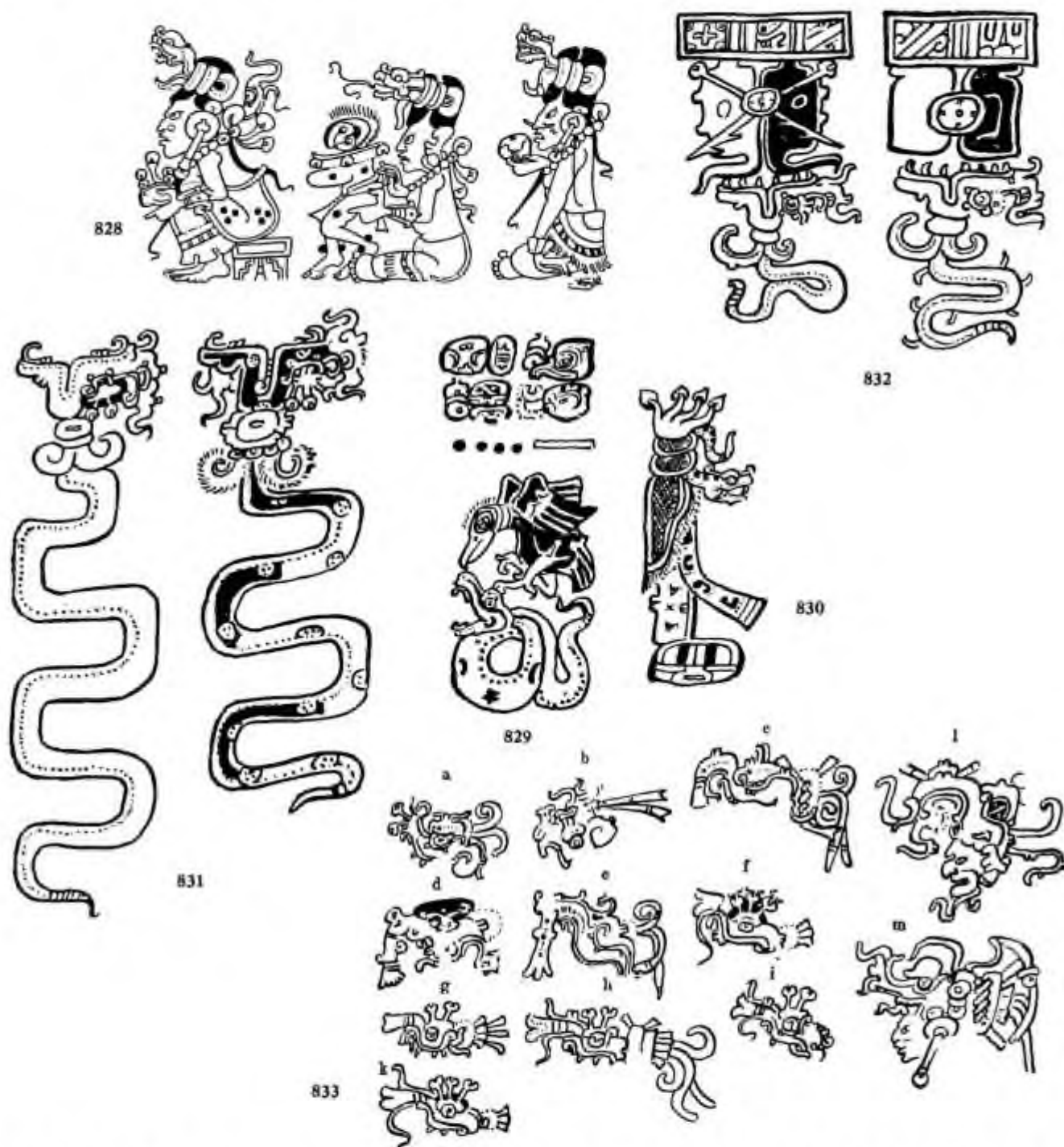


Fig. 828a-c. The god with a serpent head band. Dresden 18a, 20a, 22b.

Fig. 829. The vulture and the snake. Dresden 36b.

Fig. 830. The *zac-té* and the *uayeyab* demon of the *akbal* years. Dresden 27c.

Fig. 831a,b. The snakes of the special chronological starting

point. Dresden 62, 69.

Fig. 832a,b. Dresden 56b, 57b.

Fig. 833a-c. Head dress of Itzamná. Dresden 5c, 6b, 9b. d-k. head dress of the death god (or goddess), Dresden 6c, 7b, 9c, 12b, 13a, 13b, 14a. l. head dress of the old bald-headed god (the moon god). Dresden 46a. m. head dress of a goddess. Dresden 49a.



in the hand of the rain god, where it probably is intended to illustrate lightning (Figs. 795-796), and also once (Fig. 812) in the Vaticanus B, where the parallel passages display the red- or gay-colored serpent drawn after the style of the coral viper. The fifth day sign in the Borgia is a serpent, which suggests the quetzal-feathered serpent (Figs. 798-800) and, usually, at least, has tufts of quetzal feathers.

Commonly this serpent and the quetzal-feather serpent in general are drawn without tail rattles. Occasionally tail rattles occur with the feathered serpent of the fifth day sign in the Borgia (Fig. 799), as in other pictures of the quetzal-feather serpent /684/ (Fig. 808). Tail rattles also appear once on the red blood snake (*tlapapalcoatl*), but this is usually drawn without them (Fig. 815). The capriciousness of the artist is also seen, for example, in Figs. 822-823 from the Nuttall, which from the color and drawing are clearly intended for the same serpent (probably mythical). One is drawn /685/ without the tail rattle; the other, with it.

Conditions are similar in the Maya documents. Here too the serpent is the fifth day sign. But in Yucatan this is no longer called by the common name "snake" (*can*) but by a special, esoteric, name, *chicchan*, belonging, it may be, to a kindred dialect of neighboring Chiapas. And the glyph (Fig. 825) reproduces not the entire snake, but only the spotted design of the serpent body.

As a rule, in the Dresden manuscript the serpent bodies are unspotted (Figs. 826, 828, 831a, 832). The bicolored marking of the serpent in Fig. 831 b is not a natural coloring, but is symbolic, /686/ reproducing the color of the black Chac, deity of this serpent. Detached black spots-of no very characteristic shape, it is true appear in Figs. 829, 830, on the serpent's body.

The serpent (Fig. 827) that wears the head of the rain god is drawn with round disks, mirrors-a form of serpent marking also occurring in Mexican manuscripts. It is the *tezcacoatl*, the mirror snake that is connected with the god Tezcatlipoca. The tail end of the snakes in the Dresden manuscript is always drawn whip-shaped. Tail rattles are never given.

A fantastic development is given to the head of the serpents that, on pages 61, 62, 69, carry the rain god Chac and different animal deities upon their gaping jaws (Fig. 831a,b), and also the head of the serpents which on Dresden pages 56, 57, display the sun above their gaping jaws hanging from a celestial shield and flanked by a light and a dark field (Fig. 832a,b). Here the snout end is completely broken up into threads, branching, and forming excrescences.

Furthermore, in Figs. 831 a, b the eye /687/ is arched by a brow bordered by a dark strip from which pedun-

culated eyes rise. The branching snout end is the characteristic feature of Ah bolon tz'acab, the water god, who in the Dresden /688/ presides over the *been* years of the east (Fig. 833\*). The eye brow, with the dark strip with pedunculated eyes rising from it, corresponds to the dark strip garnished with eyes that, in Maya manuscripts as well as Mexican, forms the hair on the head of the death god, and is a symbol of the firmament, the night sky.

These snakes, which we can briefly designate as water, or Ah bolon tz'acab snakes, also appear as a head ornament or head dress (disguise) of several gods: the old god Itzamná (Fig. 833a-c), the death god or goddess (Fig. 833d-k), and the old bald-headed moon god and his female counterpart (Fig. 833l,m). The serpent heads forming the head ornament of the death god quite commonly have over the eye brow the dark strip with the pedunculated eyes, symbol of the night sky or the firmament. And the Ah bolon tz'acab serpent head forming the head ornament of Itzamná (Fig. 833a) also has a couple of pedunculated eyes on the branching snout.

Schellhas, Brinton, and Stempell have therefore explained these serpent heads as snails, although in Fig. 833a, for example, the shape of the snake head, the row of teeth on the under jaw, and the large snake eye with its brow are distinct enough, and a glance at the snakes in Figs. 831-832 should have shown these writers the error of their assumption. It is not without significance that this Ah bolon tz'acab snake mask occurs with Itzamná, the death god, and the moon god. For there is no doubt, I think, that the two personages, Itzamná and the death god, who so regularly face one another, developed from the idea of the waxing and waning moon, the planet growing old, dying, and then coming to life.

/689/ In the lower half of pages 23 and 24 of the Codex Perez, among the various animal forms that hold a sun glyph in their jaw1> there and which obviously denote constellations, the Ah bolon tz'acab or water snake also occurs with the snake (Figs. 845-846). The latter has rattles on its tail, while the water snake has a fish tail.

In the Madrid (the Codices Tro and Cortés) /690/ the body of the serpent is usually drawn with spots, after the style of the rattlesnakes of the Mexican manuscripts (Figs. 794-797, 801, 812, 824). Figure 836, the serpent Ah bolon tz'acab, on which Chac rides, even has the very spots of the pictures in the Mexican manuscripts, and these spots also occur, though not as clearly, in Fig. 834, the snake that bites the hunter's foot, and in Fig. 843.

/691/ More often, however, the spots have a special, characteristic design (Fig. 835 very clearly, and Figs. 837, 840), and usually these semi-circular or shieldshaped spots are combined with slanting deep-black cross

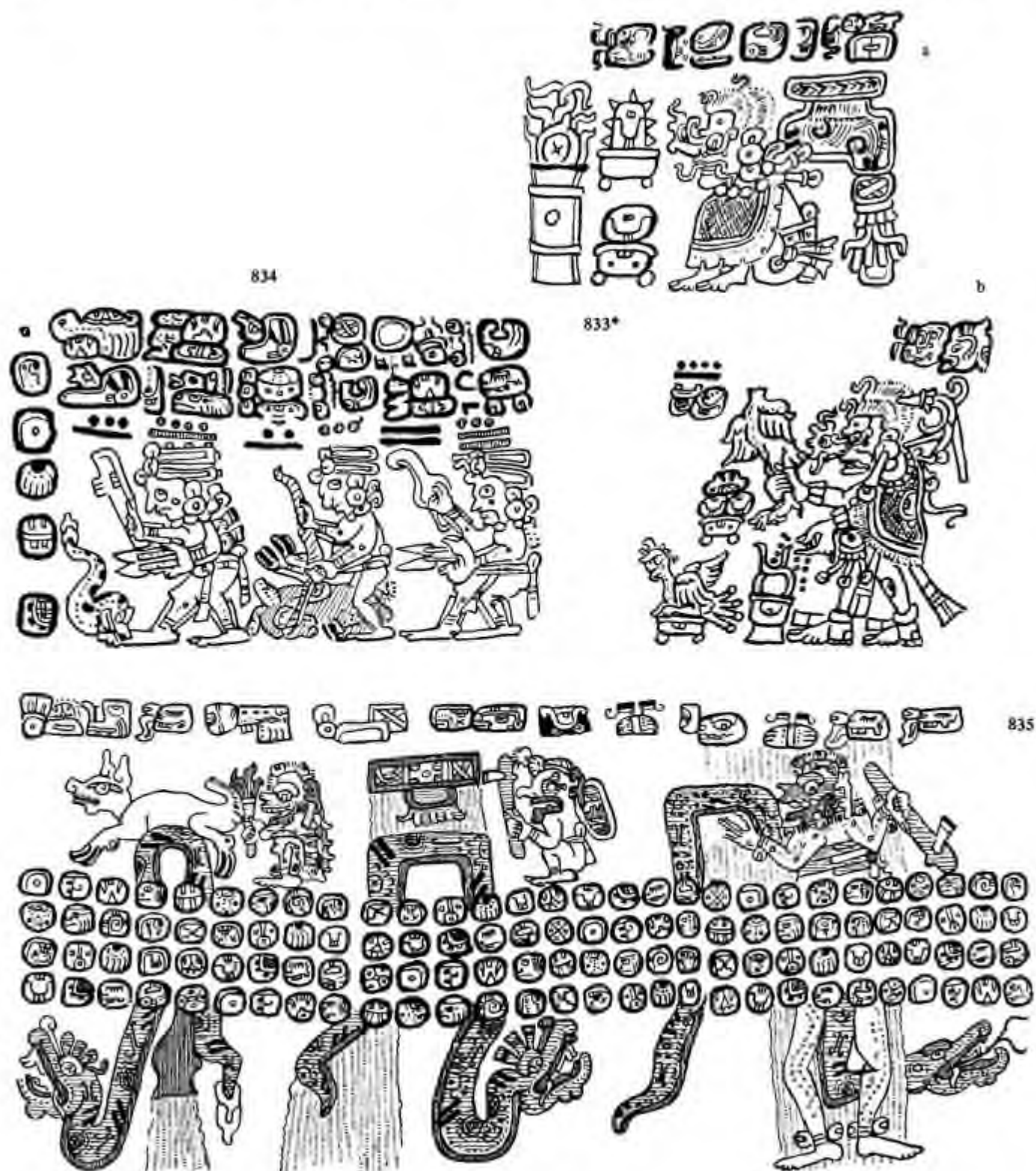


Fig. 833\*. Ah bolon tz'acab, the water god. a. regent of the *been* years of the east. Dresden 25b. b. sacrificing to the *ua-yeyah* demon in the *xma kaba k'in* before the *e'tznab* years.

Dresden 26c.

Fig. 834. The serpent and the hunters. Tro 17b.

Fig. 835. The serpent and the Tonalamatl, Cortés 14-16b.

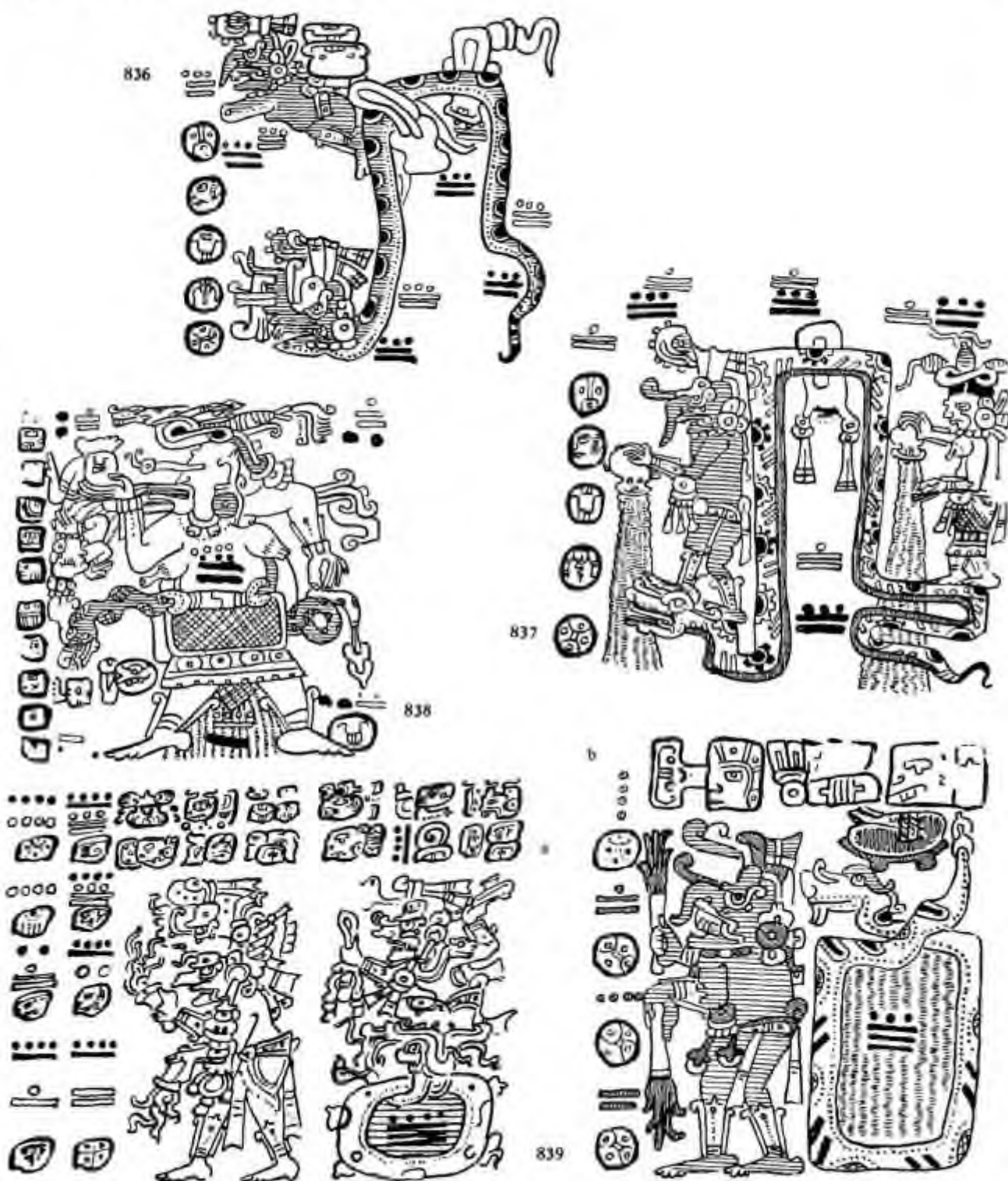


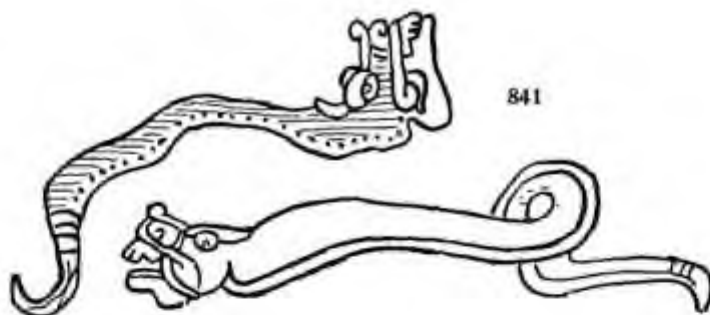
Fig. 836. Chac, the rain god, riding on a snake with the head of Ah bolon tz'acab, the water god. Tro 26b.  
Fig. 837. The serpent, on which the rain god and rain goddess are standing. Tro 27a.

Fig. 838. The goddess with the rattlesnake belt. Tro 25b.  
Fig. 839. The snake and a water sack. a. Dresden 34b, 35b, b. Cortés 5a.

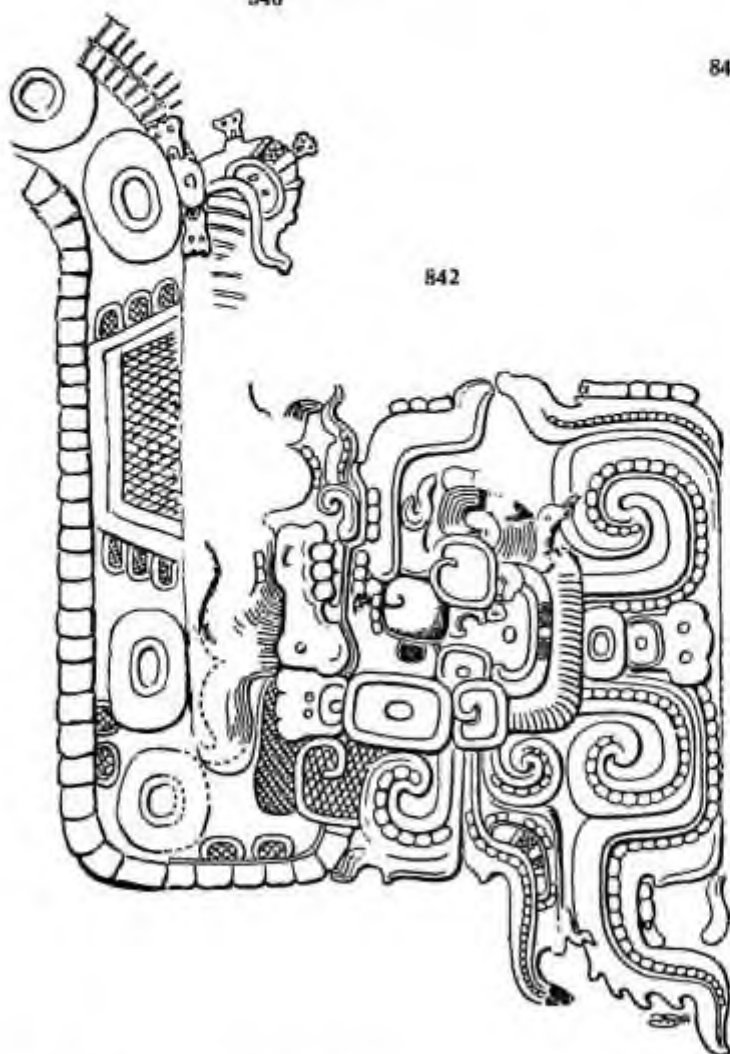




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Fig. 840. The rattlesnake. Tro 5c.

Fig. 841a,b. The snake (with horn tip?) with the black god. Tro 25a, 24b.

Fig. 842. The quetzal-feather serpent of the celestial vault.

Cedar lintel from Tikal.

Fig. 844. Cortés 33b.

Figs. 845-846. Constellations of the rattlesnake and the water snake, or Ah bolon tz'acab. Pérez 24, 23.

lines and other marks (see Fig. 835 especially, and Figs. 837, 839b, 843). The shield-shaped spots, which also form the essential element of the *chicchan* sign, the fifth Maya day sign (Fig. 825), consist of /692/ a crosshatched center and a border of smaller black spots, usually rectangular. Cross-hatching is the conventional mode, on the reliefs, of reproducing the black color of the manuscripts and paintings.

We may assume, therefore, that this shield-shaped spot, filled with cross-hatching, as seen also in the /694/ *chicchan* sign, is merely a transference to the manuscripts of the mode of representation in carving. In reliefs where a serpent body is drawn in this way, both the large middle portion of the spot and the border of small spots are cross-hatched (Fig. 842).

The rear end of the serpent body is usually whipshaped, as in the Dresden manuscript. Rattles occur (Figs. 834, 835, first serpent, 838, 839b, 845), but it would seem as if it were left to the artist to draw them or not, as he pleased. Thus in the series of Cortés 12-18, of which Fig. 835 represents a part, five serpents are illustrated. The color and marking of the serpent bodies, and also the form of the head, it is true, are not identical, but quite similar. The first two have rattles; the last three, only a plain pointed tail.

/695/ There is a distinct reference to the rattlesnake as such only in the Codex Tro, page 5c (Fig. 840). In this scene, in which Stempell—in my opinion not very correctly—is reminded of the Old Testament story of Paradise, whereas rattles or bells are actually the subject. Copper bells are on top of the jug that stands between the two persons. It therefore contains "sounding" water, rushing water, *coyolatl*, "bell water," as the Mexicans called it. And copper bells can also be seen in the air in front of each of the two persons. These facts appear to me intended to suggest the same idea of rattles or bells. Likewise, it may be that the serpent in Fig. 845 is intentionally portrayed with rattles. For the constellation, which this serpent illustrates, must certainly have been called by the name of a particular kind of snake.

On the other hand, one of the two serpents in Tro 25a, 24b, with the black god (Ek chuah) (Fig. 841), appears to have the pointed end and the wavy cross lines that are the mark of hewn stone, flint, a hard substance, so that here a tail thorn seems to be indicated, such as occurs in the Lachesis species.<sup>10</sup>

The head of the serpents is more or less fantastically formed. A large eye brow is always given. In Cortés 12 to 18 (Fig. 835) other designs occur, which in Cortés 12 look like a feather crest but in reality correspond to the three elongated eyes—denoting stars, i.e. darkness—that are put on the eye brows in Mexican manuscripts.

The result of our examination can only be that, in these serpent pictures, there is in the shape of the spots a resemblance to the drawing of the common variety of rattlesnake (*Crotalus horridus*), but that on the whole it would be useless to begin to identify these figures with specific kinds of serpents.

### 39. Frogs and Toads

Frog in Mexican is *cueyatl*, *acacueyatl*, tadpole, *atepocatl*, *atempolocotli*, and toad, *tamacolin*. Tree frogs have the special name *xochcatl*, the larger and noisier bullfrogs are called *calatl*, and these are divided into the *milcalatl*, which are of a brighter green, and the large true bullfrog, *tecalatl*.

In the Zapotec the collective name for frogs and toads is *peche*, *peeche*, *beeche*. The special kinds are the *peche colijo* and the *peche áa*, and as they appear in the rainy season, frogs are called *peche xini cocijo*, "son of the rain god." Toad is *peche xeni*, "the broad," *peche mao*, and *peche quéqui*. Tadpole is *pellole*, *pellole nica*.

/696/ In the Maya languages of Guatemala the frog is *ixtutz*, the toad, *xpek*. In Yucatan we have the general name *much*, which is used for toads and frogs and also denotes the female private parts. A little brown frog with a monotonous croak-like call has the special name of *uo*. The same word *uo* is also used for tadpoles, and *uo* is also the second of the eighteen *uinals* or periods of 20 days.

/698/ The Mexican word *cueyatl* occurs as the name of persons; *xochicatl*, "tree frog," for example, appears in the name of a spring, and *tamacolin*, "toad," forms the chief element of a number of place names. In their glyphs we also find /699/ a very good picture of the toad (Fig. 847) with tailless body and warts on the skin.

To many peoples, e.g. the Dakota tribe of the Monitari, the black spots in the moon look like a toad." Hence with this tribe the toad held the same place as the rabbit among the Mexicans. And they related of the toad that it was very old and that it could never be killed. This proves that these tribes connected the toad with the moon, for the moon is the very old one who ever rises anew and may not be killed.

We shall also bear in mind these ideas when we hear from the Mexicans that they thought of the earth in the guise of a toad. For the ideas of the earth, which is the region of darkness, and of the moon, the star of the night, are connected. We find the earth goddess in this guise as mistress of the second heaven or the second of the 13 hours of the day (Fig. 848), and we find her represented on the bottom, the under exterior side of monuments of varying dimensions (Fig. 849).

As the wrists and ankles are often marked with open



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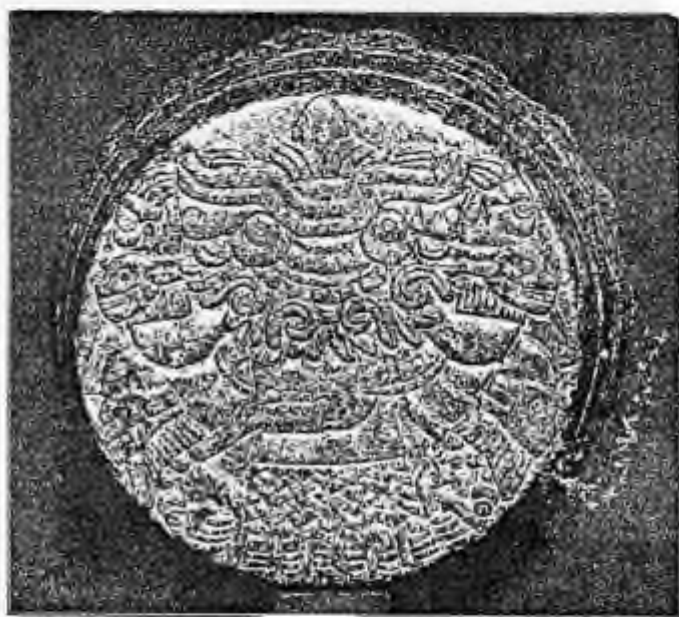
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Fig. 847. Glyph of Tamaçollan, Mendoza 45, 8.

Fig. 848. Tlaltecuctli, the earth goddess, in the guise of a toad. Second of 13 heavens and lords of the 13 hours of the day, Borbonicus.

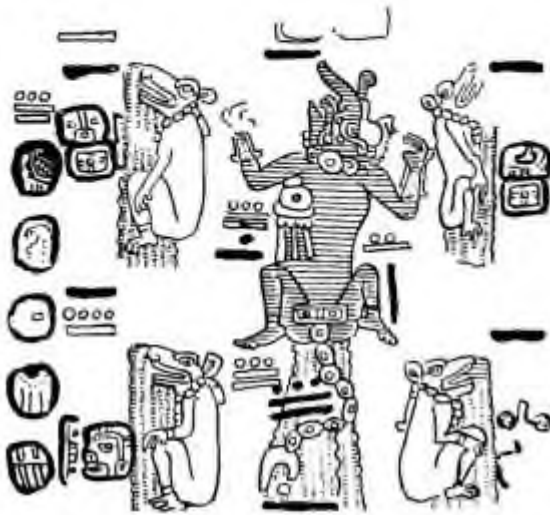
Fig. 849. Tlaltecuctli, the earth goddess, in the guise of a toad, on the bottom of a stone vessel for sacrificial blood (*quauhxicalli*). Royal Museum of Ethnology, Berlin.

Fig. 850. Quetzalcoatl, the wind god, the god of life, in the guise of a toad, with a sun-disk on his neck, and in his hand the *xonecuilli*, the thunderbolt. Green stone figure, British Museum.

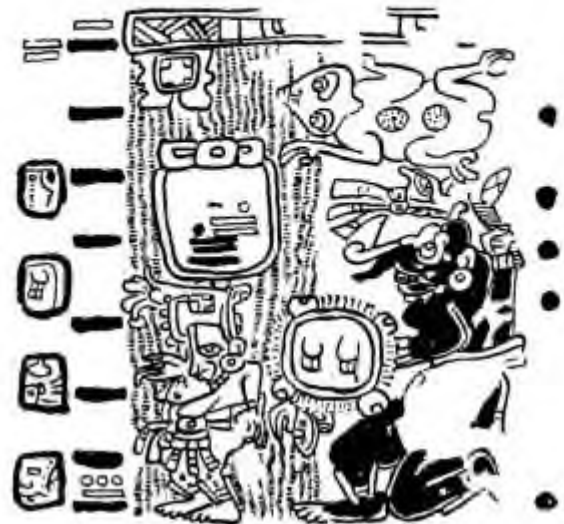
Fig. 851. The turtle and the frog, descending from above in the rain. Cortés 17c.

Fig. 852. The living frog and the dead frog. Tro 12\*c.

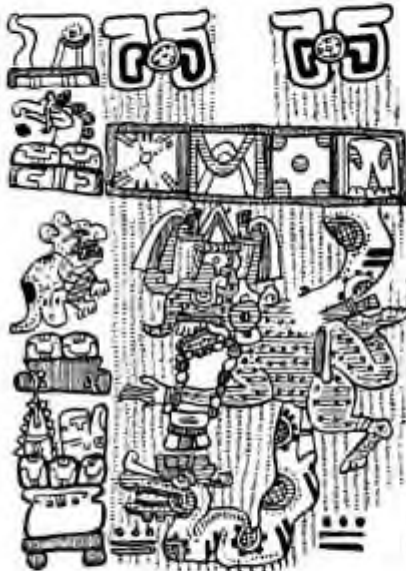




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Fig. 853. Chac, the scorpion, the fire god, the lord of the center, with frogs and water spitters, rain bringers of the four directions. Tro 26a.

Fig. 854. The black rain god, the warrior with a stone axe and fire shield, and his companions, the frog and the maize god. Tro 24a.

Fig. 855. Chac as a frog and a serpent. Cortés 12b.

Fig. 856. The frog—top and front of the "oblong altar," Copan. Maudslay I, pl. 114.

Fig. 857. South and north side of Altar O, Copan. Maudslay I, pl. 85.



Fig. 858 (76-100). The glyph for *uinal*, "twenty," or "20 days."

Fig. 859. The frog, companion of the rain god. Dresden 37a.

Fig. 860. Glyph of Michatlan. Mendoza 48, 8.

Fig. 861. Glyph of Tollan. Boturini 4.

Fig. 862a,b. Warriors of Michuacan. Telleriano-Remensis 25 verso, 33 verso.

mouths with an eye above them, this explains the statements of writers that the Mexicans imagined the earth in the guise of a toad with bloody mouths at the wrists and ankles, with which they snapped and bit. Likewise, other gods relating to the moon are pictured in this manner in the guise of a toad. Thus the British Museum possesses a sculpture of green stone (jadeite?) that represents the god Quetzalcoatl as a toad with a sun-disk on its back and the *xonecuilli*, the likeness of lightning, in its hand (Fig. 850).

/700/ In the Maya manuscripts, particularly the Madrid, a large portion of which is devoted to rain charms, along with the serpent and the turtle, the frog also plays its part, which-as the Zapotecs say-is *xini cocijo*, "son of the rain god," i.e. it lets itself be heard in the rainy season, and therefore it also passed as a bringer of rain. In Figs. 851-854 the chief instances of the frog are grouped. The pictures are tolerably true; only the brow, which in a conventionalized manner is placed above the eye, is not a natural feature.

In Fig. 852 the frog is blue, and in Fig. 851 it has blue dots. In Fig. 854 there are two warts or carbuncles on its back which, strictly speaking, belong rather to the toad. The darker round spots, which are given on the blue ground of the body of the rain god (Fig. 855), seem to be intended to correspond to the frog or toad marking.

More realistic pictures occur on the two monuments (Figs. 856-857) of Copan. /701/ Pictures of the frog, or more correctly, of the toad, take the place of the *chuen* sign, which on other monuments serves the same purpose. This is true also of the heads with which the *uinal*, the 20-day period, is expressed on the monuments (Fig. 858, numbers 81-94, 97-100). That these are in fact intended to represent a frog or a toad is proved not only by the full figure (Fig. 858, number 97), which stands on Stela D. Copan, as the glyph for 20 days, but also by the little shield with three small circles that is employed as the characteristic mark on almost all these figures at or over the ear. They may also be seen in the same fashion and at the same place with the frog on the so-called oblong altar at Copan, half on the upper side and half on the front (Fig. 856). Likewise, the curious involute fang protruding at the corners of the mouth in nearly all the pictures of the *uinal* glyph-a very unnatural feature -similarly appears with the frog (Fig. 856).

In the Dresden manuscript, in the series of lightning gods and rain personages, a man with an animal head also occurs, wearing at the ear the little shield with the three small circles (Fig. 859), which is one of the characteristic marks of the *uinal* glyph. This animal demon should, I think, also be explained as a frog.

#### 40. Fish

The fish is *michin* in Mexican, *pélla*, *beelda*, among the Zapotecs, *car* in the Maya languages of Guatemala, and *cay* in the Yucatan.

For the large salt-water fish Sahagún gives *tlacamichin*, "human fish," which, I think, means as large as a human being; the Sahagún name for the eel is *coamichin*, "snake fish." In addition he names the *totomichin*, "bird fish," the head and bill of which resemble those of a bird, but it has fins and a fish tail; also the *uitzitzilmichin*, *papalomichin*, *ocelo-michin*, which are said to look like parrots, butterflies, and jaguars; lastly, the *quauhxouilin*, a large edible fish with head and beak of an eagle, no scales, and no bones.

Fish do not play an important part in the illustrations, and for the most part they are so small that, as a rule, it is impossible to identify the species and family. From Mexican documents I give Fig. 860, the glyph of one of the cities, containing in its name the word *michin*, 'fish,' and Fig. 861, the hieroglyph of Tollan, "Rush city," where a very conventionally drawn fish, resembling a kind of wing, 1702/is swimming in the water in which the rushes grow.

In Fig. 862a,b the glyph of the district of Michuacan, the lake region, the "region where there are fish," and the warriors of this district are represented. Figure 863a,b shows us Tlaloc, the rain god, and the water with aquatic animals-fish, snails, etc. Figure 864 is a picture of Colhuacan, "Crooked mountain," which is the likeness of the mythic west, with the water that fills its caves. Figure 865a represents Mayauel, goddess of the agave plant, designated as prototype of fruitfulness, as the "woman with a hundred breasts." A fish is suckling her breast, and the fish is indeed the animal of fecundity.

Finally, Fig. 866a,b shows us a fisherman who appears to face the lord of the eleventh day sign, Xochipilli, the young god of generation, and to signify a mythical, primeval land abounding in fish.

In the first three pictures, scales, fins, gill lids, and forking of the tail fin are quite true to nature. In the Borgia (Figs. 863a, 865a, 866a) the eye has the conventionalized brow; the fins are also 1703/very conventionally drawn, like a kind of wing, and are attached to a long fin spine; the tail is given the elements of the glyph *chalchicuitl* (Fig. 863a) or ends in a feather ornament (Fig. 865a).

The Nuttall has curious forms (Figs. 867-870). The last two, fishes with bird head and bird wings, of course, are hybrid forms, though Fig. 869, a red fish with eagle-like beak and bright wings, which perhaps could be called a parrot fish, is drawn in the water with *cipactli*,



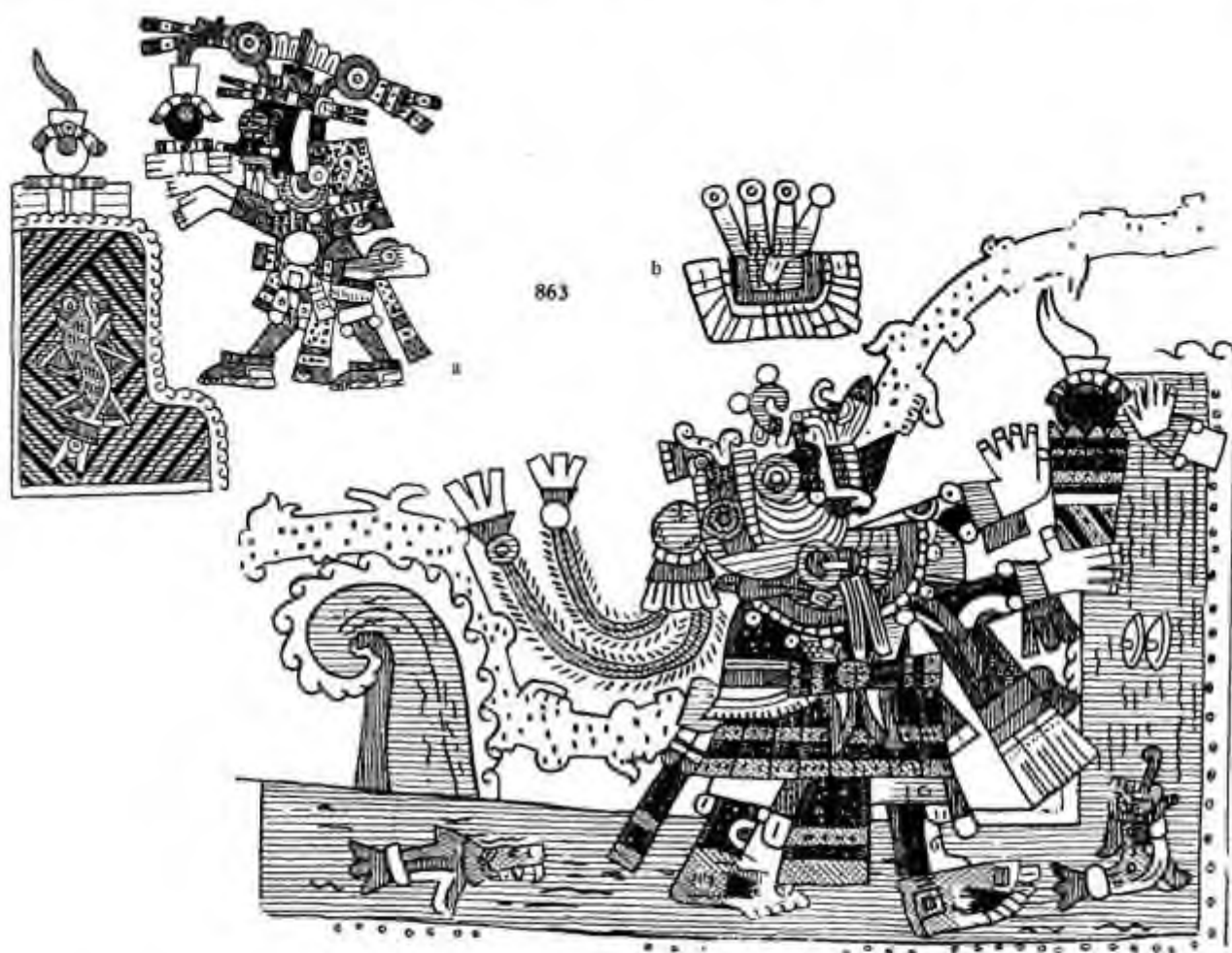
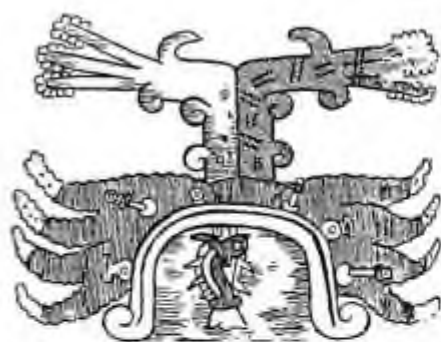


Fig. 863a,b. Tlaloc, the rain god, ninth of the 9 lords of the night, Borgia 14, Vaticanus B 23.

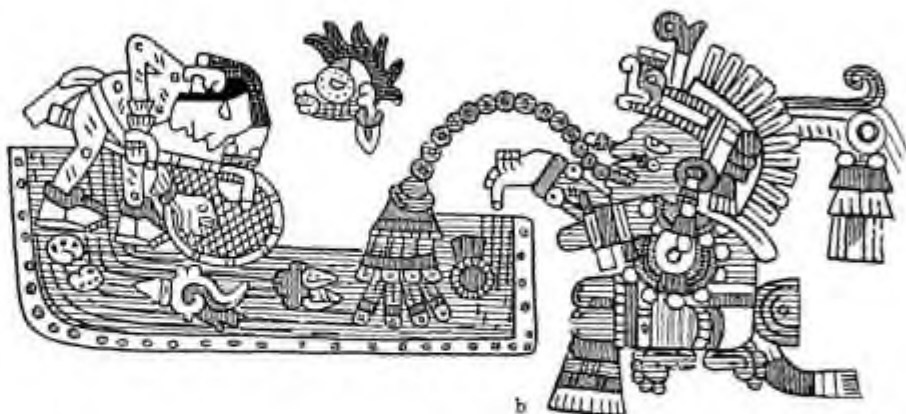
Fig. 864. Colhuacan, the mythic west, and the god Tonacatecotli. Colored painting on an earthenware vessel from Nochis-

tlán. Sologuren Collection, Oaxaca.

Fig. 865a. Mayauel, goddess of the agave plant, suckling a fish. Borgia 16. b. *mell*, the agave plant, and suckling fish. Vaticanus B 40.



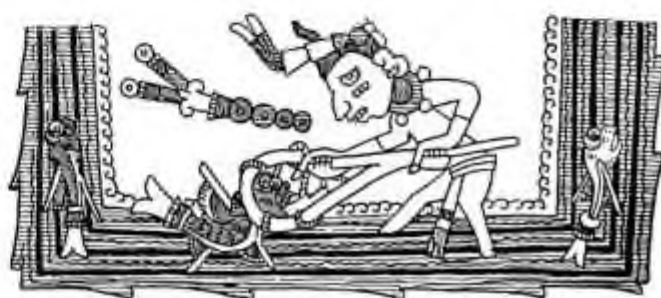
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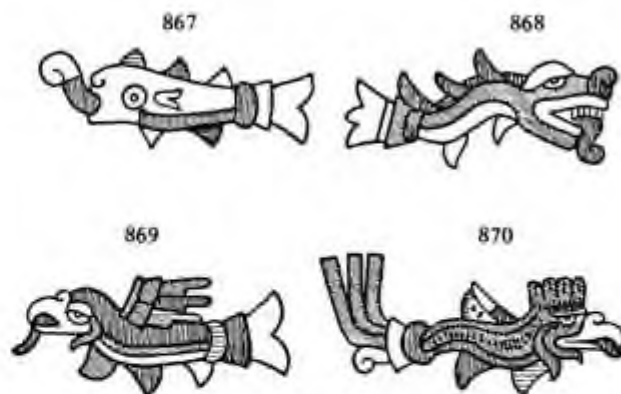
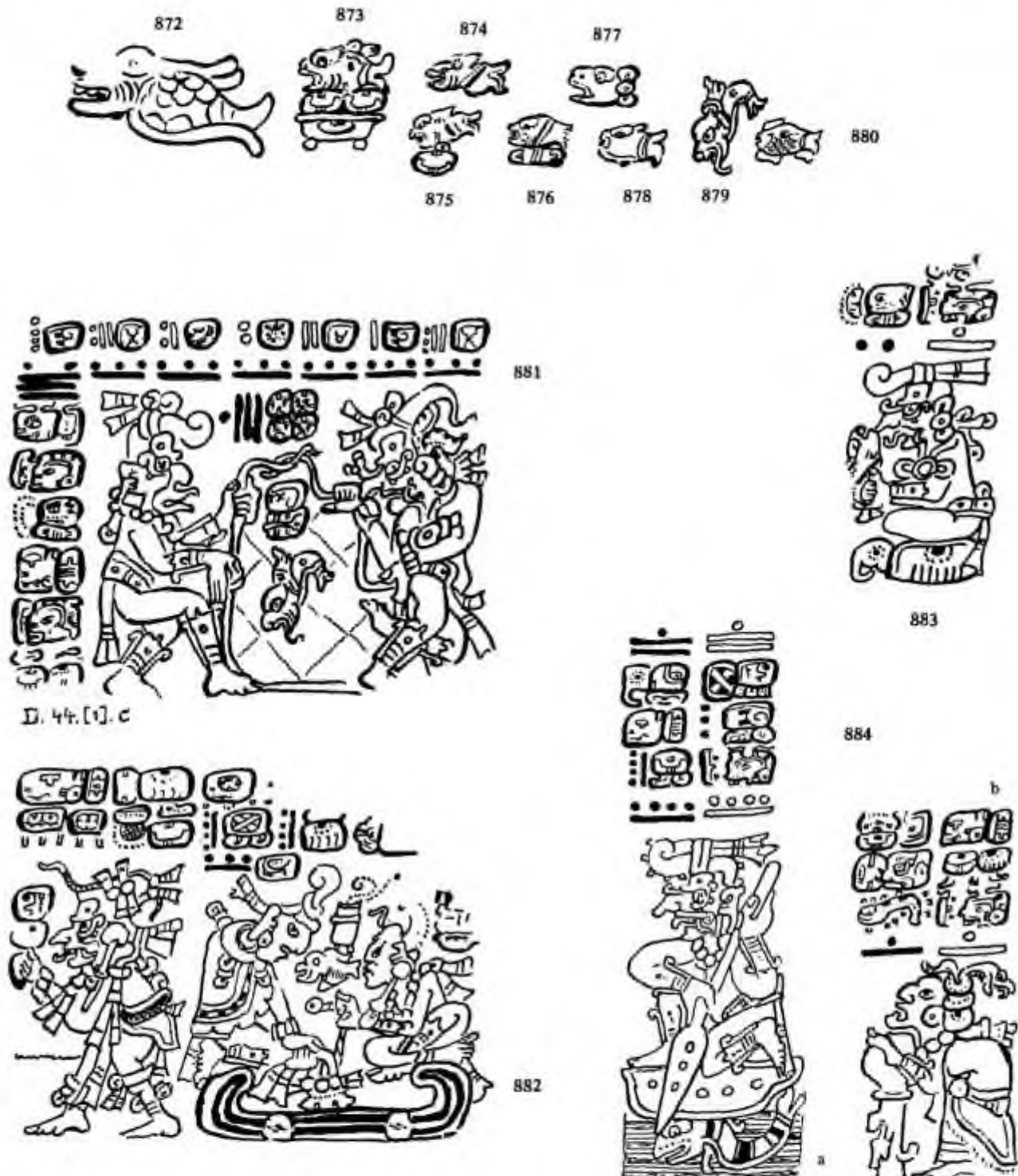


Fig. 866a,b. The fisherman, opposite Xochipilli, Borgia 13, Vaticanus B 32.

Figs. 867-870. Nuttall 80, 18, 75, 12.

Fig. 871. Figures of fish on pottery from Ranchito de las Animas (Vera Cruz). From Strebel, *op. cit.*, pl. XII.



Figs. 872-880. The fish as oblation: Fig. 872. Cortés 3a; Figs. 873-880. Dresden 27c, 29b, 29c, 31b, 39c, 40c, 44(I)c, 23b. Fig. 881. The rain god Chac, as fisherman. Dresden 44(I)c. Fig. 882. Chac, the rain god, and two fishermen. Dresden 33a.

Fig. 883. Chac, the rain god, with fish. Dresden 44(I)a. Fig. 884a. Chac, the rain god, in a canoe. Dresden 65b. b. the old red goddess, the water goddess. Dresden 43b.



quetzal-feather serpent, and snails; the other, Fig. 870, a quetzal fish, stands as determinative with a goddess who seems /704/ to be a form of Xochiquetzal. The dorsal fin resembles that of the Codex Borgia fish, consisting of a kind of wing that is attached to a long fish spine.

I mentioned above that the mythic *cipactli*, "the fish from which the earth was made," which is usually drawn as a crocodile, is also pictured a few times in the guise of a fish with shark-like claw tail (see p. 275 above, Figs. 674, 676).

Interesting and curious fish figures occur on pottery from Ranchito de las Animas, Vera Cruz, and this is the only case known of such a decoration (Fig. 871). In a few there is a circular spot at the center of the broad side, which perhaps corresponds to a similar spot of color without a border, displayed in the same position by many of the prettily colored fish of the southern waters. On several of these vessels fish alternate with a checkerboard design.

1705/ In the Maya manuscripts fish appear as a regular offering, with turkey, deer, and iguana, and, apparently, as offering to the gods of the south (Figs. 872-878, 880). We have then pictures of fishing, where in one case the rain god with a bird-headed deity (Fig. 881), in another case, apparently, the *chicchan* god with another deity not 1706/ found elsewhere in the manuscripts (Fig. 882), draws up the net. Finally, we see the rain god, sitting on the *imix* sign, holding a /707/ fish in his hand (Fig. 883). The *imix* sign, which corresponds to the Mexican *cipactli*, the likeness of the fruitful earth, the symbol of generation, seems to be connected especially with fish.

The fish as such is readily recognized in these pictures, but genus and species are doubtful. Figure 877 is also doubtful, and I have placed it here only with a proviso: it probably belongs more properly with the iguanas or frogs. Scales are distinct only in Figs. 872, 880. 1709/ A peculiarity of several Maya fish (Figs. 874-876, 879, 883) is the slanting dark stripe running from top to bottom, which perhaps corresponds to the marking of a particular kind.

In Fig. 872 Stempell thought he recognized a number of gill openings lying in rows, and has offered the conjecture that this scaly teleost animal with claw-like tail fin belongs to the shark family. As a matter of fact here, as in Figs. 873, 874, only the rear edge of the gill lid and the rear edge of the gill opening are intended to be drawn.

The peculiar creature (Fig. 884a) in the water under the rain god's boat Stempell has also referred to as a fish, on account of the broad, forked tail. It may be intended for a fish, though the arm-like appendages and the lack of a gill opening seems to contradict this iden-

tification. I wish to observe, however, that a similar broad, forked tail also appears, for example, on the water serpent on Codex Pérez page 24, 1711/ among the constellations (above, p. 300, Fig. 846).

I cannot understand how Stempell could consider as fish the snake drawn with the black god in Tro 24b (Fig. 841 b, page 300) and the worms or snakes represented as maize bringers in Tro 33d, 32d, 30d (see pp. 184, 186, above, Figs. 147, 148, ISO, 151). The entire drawing, though small, is obviously exactly the same here as that of the serpent biting the hunter's foot (Fig. 834), and the alleged "distinct tail-fin" in Tro 33d is nothing other than a somewhat angular twist of the tail.

In the stone monuments of the large ruined cities of Chiapas, Yucatan, Guatemala, and Honduras the fish frequently occurs. We find it with the frog, the animal of the rain god, on the north and south sides of Altar O, Copan (Fig. 857). We see it at Palenque in the bill of a heron that a figure 1712/ wears as a head dress (above, p. 271, Fig. 652).

There are, however, two special instances in which we find the fish in the stone carvings: with its mouth hanging at the center of a flower, hanging tightly there, as it were (Figs. 885-891), and in the initial glyph, which is almost always ornamental, the *katun* sign, where a fish figure, or an equivalent of the fish figure, appears on each side of a *fun* sign, or is placed at the sides of a god's head crowning the *fun* sign (Figs. 892, 893). With this *fun* sign, as it seems, it forms a glyph constructed on a phonetic basis conveying to the observer, apparently, the word *katun* (period of 20 x 360 days).

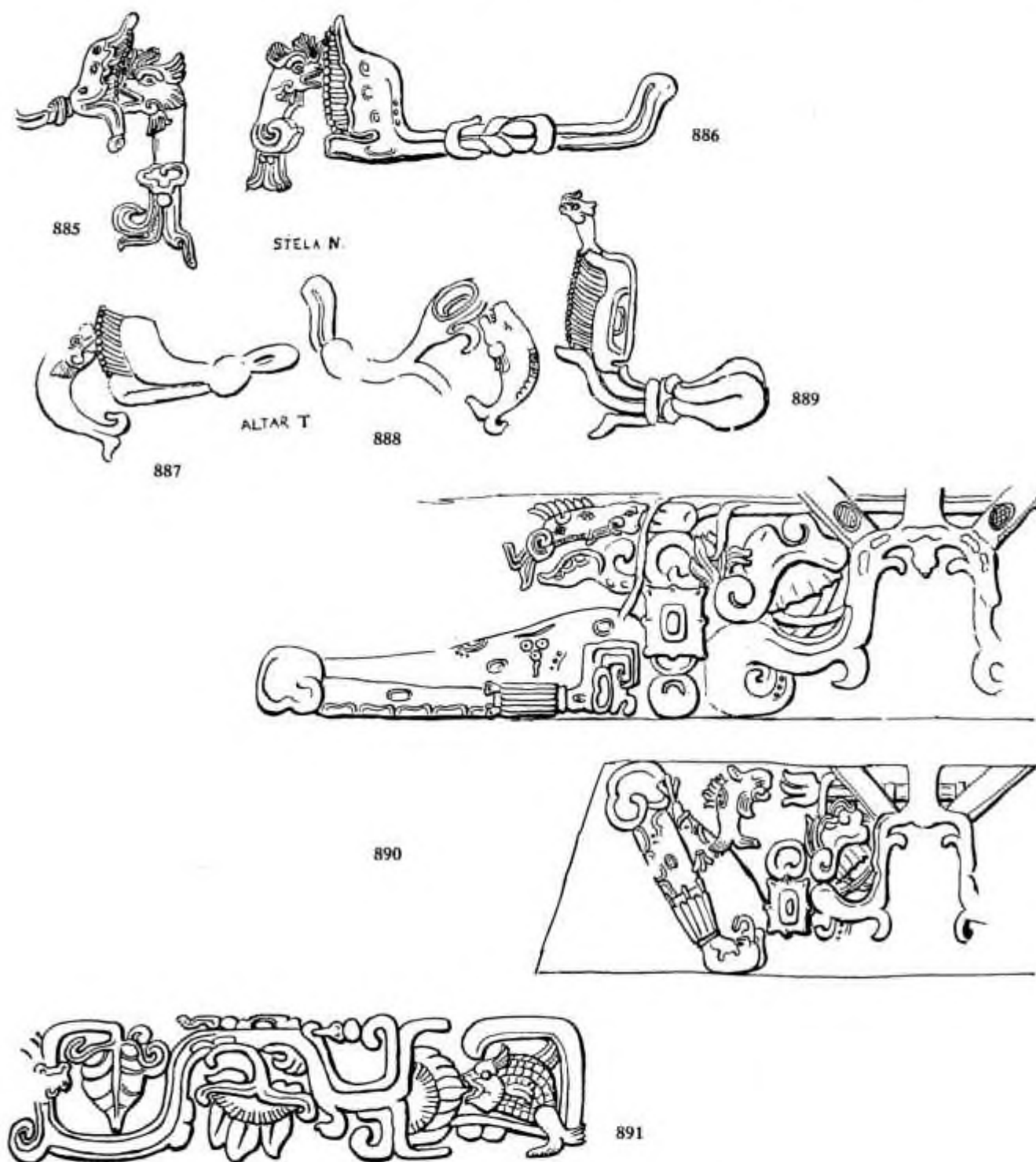
The full figure of a fish appears on the cover of a three-footed earthenware dish excavated in the Cerro de Santa Teresa, near Ocoingo (Fig. 894). The cover and the bulge of the vessel have on each side an incised glyph (Fig. 894b,c), the center of which is evidently intended to represent an eye, so that this is probably another conventionalized animal head.

1. The name "lagarto" given by Stempell is Spanish and is used throughout Spanish America along with the word *caiman* (belonging originally to the language of the Antilles). "Lagarto," however, designates all large lizards, e.g. the iguana, while the diminutive "lagartija" is applied to the smaller, actual species of lizards.

2. See my commentary on the Borgia Codex, Berlin: 1906, Vol. II, page 156.

3. See "The Cedrela Litels in the Museum at Basel," Vol. 1 of the present edition, pp. 295-96. There are additional statements in Vol. IV, pp. 331,333.

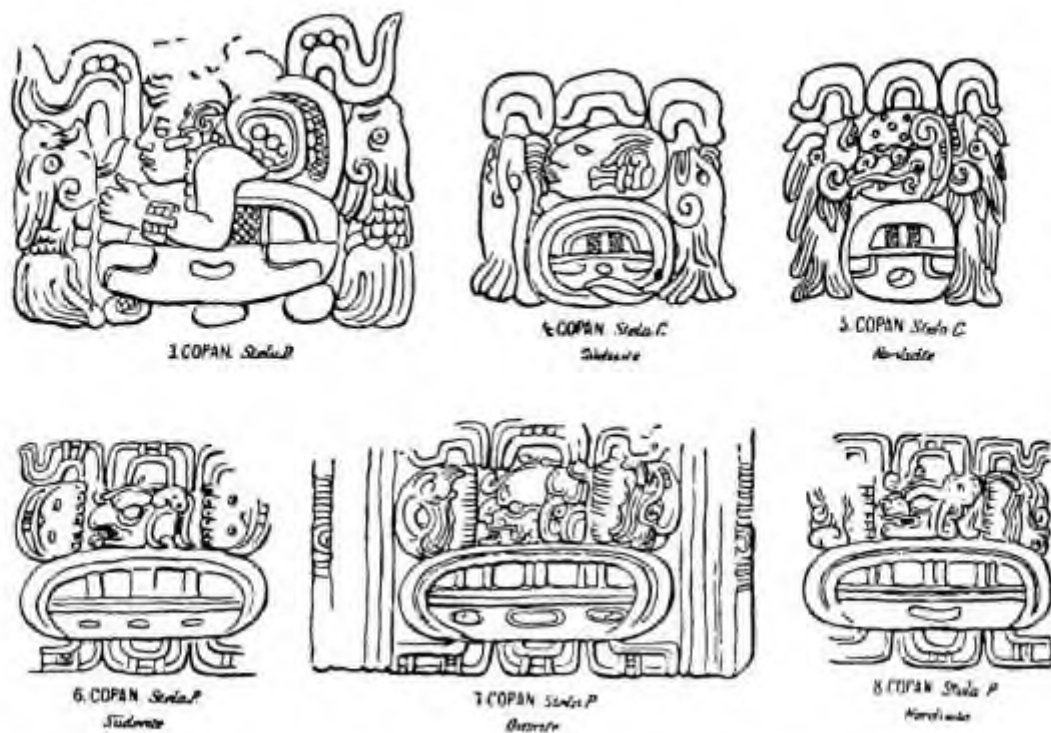
4. /Illustrations of the Manners, Customs, and Condition of the North American Indians. London: 1876, Vol. 1, page 181. [American artist and author George Catlin (1796-1872) devoted



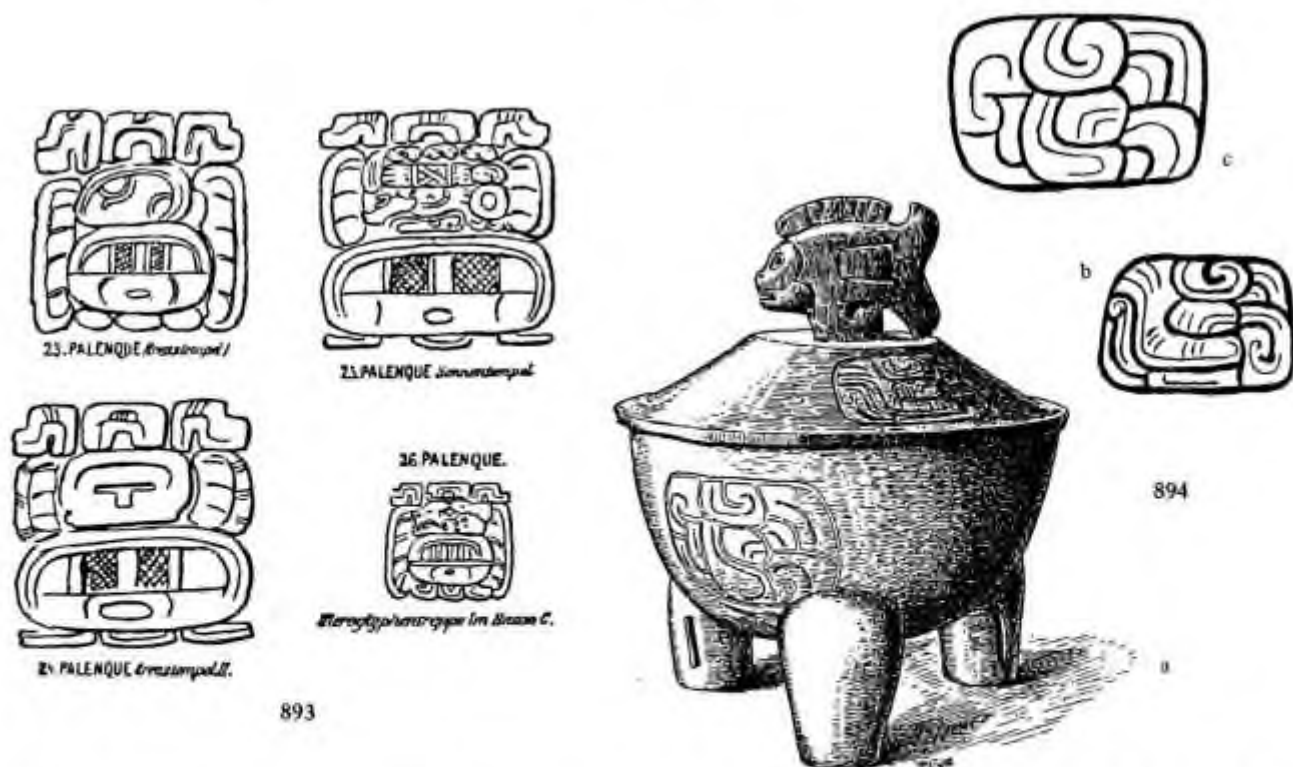
Figs. 885-889: Flowers and fish. Figs. 885-886. Copan, Stela N;  
Figs. 887-889. Copan, Altar T.  
Fig. 890a,b. Parts of the relief work (figures of monsters) on  
north and south outer walls, Temple of the Cross, Palenque.

Maudslay IV, pl. 68.

Fig. 891. The "water plant" (?) and a fish. A piece of the border  
at the base of the south wall, Hall E, Chichen Itza.



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Fig. 892. Katun sign (initial glyph) of monuments at Copan.  
Fig. 893. Katun sign (initial glyph) of monuments at Palenque.  
Fig. 894a. Earthenware vessel with cover, Cerro de Santa Te-

reza (near Ococingo). Seler Collection, Royal Museum of Ethnology, Berlin. b, c. incised design on the cover and body of the vessel from Ococingo.



his life to the study of the Indians.-F.E.C.]

5. "Das Tonalamatl der Aubinschen Sammlung." Berlin: 1900, page 15.

6. "Die Ruinen von Chich'en Itzá in Yucatan." XVI Congress of Americanists, Vienna (1908), pp. 151-239. See also Vol. VI of the present edition.-F.E.C.

7. See my commentary on Codex Vaticanus No. 3773, pages 145-47. [See "Published Works of Eduard Seler," Vol. I of the present edition, No. 138.-F.E.C.]

8. Quoting the interpretator of the Vaticanus A (No. 3738).

9. I recently received from Dr. Lehmann accounts concerning the symbiosis of a lizard with leaf-cutter ants.

10. Lachesis is a genus of American pit vipers, e.g. the bushmaster.-F.E.C.

11. Prinz Max zu Neuwied, *Reise in das Innere Nord-America in den Jahren 1832 bis 1834*, 2 Vols. 1839-1841. Vol. II, page 151. [Prince Alexander Philipp Maximilian (1782-1867) came from Wied, Prussia. See also his *People of the First Man: Life among the Plains Indians in their. Final Days of Glory*. New York: Dutton, 1976. The Monitari (now spelled "Minnetaree") are a branch of the Hidatsa.-F.E.C.]

## INSECTS AND OTHER LOWER ANIMALS

## 41. The Butterfly

/713/ In Mexican the butterfly is *papalotl*. The black variety is *tlilpapalotl*, the large yellow one, *tlecocoz*, "flame yellow," and the large striped one, *xicaltecompapalotl* or *xicaltetecon*, *xixicaltecon*, "of the size and appearance of drinking vessels." In a mythical connection the names *tira-papalotl*, *iui-papalotl*, "white chalk and down butterflies," are also found.

The Zapotecs called the common field butterfly *pequiti*, *piquiti*, *xiquite copijcha*, or *pequichí*, i.e. "flake"; the large half-red, *nio-zee*, and the white, *pea-pee*. In The Maya languages the most common name for the day butterfly is *pepen*, *pepem*, or *pehpem*. In the Altos of Guatemala they are called *zulup* or *k'ek-zulup*.

The butterfly plays a prominent part in the mythology and ornamental art of the Mexicans. To them the butterfly, the fluttering one, was a symbol of tire and is therefore also a part of the symbol which, composed of the picture of water and tire, /714/ was for the Mexicans both a verbal and a pictorial expression for war (see Fig. 897, symbol of tire, and Fig. 898, glyph for war).

As animal of the tire god the butterfly was also the symbol of the ancients, i.e. the deceased, ancestors, but not of the ordinary dead, who live beyond the great water, in Chicunauhmiclan, in the innermost depths of the earth, from where-once safely conveyed thence-they never return, but it is the likeness of dead heroes and dead chieftains, the spirits having their abode in the sky, the warriors fallen in battle or slain on the offering stone and the women who have died in childbed.

For of the dead warriors we read that they<sup>1</sup>

... transformed into birds with brilliant plumage, into hummingbirds, flower birds, yellow birds with the black ring around the eye, and into white chalk and down butterflies (*ticapapalotl*, *iui-papalotl*), and into the large striped butterflies (*xicalteconpapalotl*), and there in their abode suck the honey of the flowers, and that they descend to earth to suck every possible variety of flower, the blossoms of the *Erythrina coralliodendron*, the /715/ *Carolinea princeps*, the Calliandra.

In the Aubin Tonalamatl, therefore, the butterfly is

represented as the disguise of a god (Fig. 895, third figure) wearing the painting of the tire god and the forked feather head ornament of the warrior.

And the butterfly, therefore, is in general the seventh of the series of 13 birds, i.e. symbol of the seventh uppermost heaven and the hour of midday (Fig. 895). For when the sun reaches the zenith, the spirits of the dead warriors have fulfilled their duty. They transfer the sun to the dead women, who conduct it down to the west, while they themselves descend to the earth to suck flowers as hummingbirds and butterflies, which indeed are liveliest and most energetic in the hottest noon hours.

Not only the dead warriors, but also the dead women, the Cuateteo, the spirits of those who died in childbed, who live in the west, were thought of as butterflies, for their representative is Itzpapalotl, "Obsidian butterfly," the demon of Tamoanchan, the Land of birth, the mythical west, who is the lord of the sixteenth day sign, • 'vulture,' and of the fifteenth Tonalamatl section (Figs. 907-910).

The spirits of the dead warriors are diurnal beings, likenesses /716/ of the sun, butterflies of the day. The spirits of the dead women, however, have not done their duty until they have assisted the sun into the death realm. At night they descend to earth; they are likenesses of the moon, spectral beings; they are-so we must conclude/717/ crepuscular butterflies, night butterflies.

But they too are warriors. Hence a butterfly executed in feather mosaic was carried by warriors as ornament and device, as a charm insuring victory-especially by the warriors of the Chinampaneca, the inhabitants of the cities of Xochimilco, etc., on the shores of the freshwater lake, where the old tire god was honored in the guise of a woman (Figs. 899-901).

The demon Itzpapalotl is represented sometimes as a fantastic insect (Figs. 908, 909), sometimes as a woman with the painting of the tire god, the forked feather head ornament of warriors, and with a sort of wheel-shaped butterfly wing that has stone knives on its /718/ periphery (Fig. 907a,b), or, finally, in the form of the toad, but with a wavy border along the arms with stone knives in the depressions. This border is said to represent the

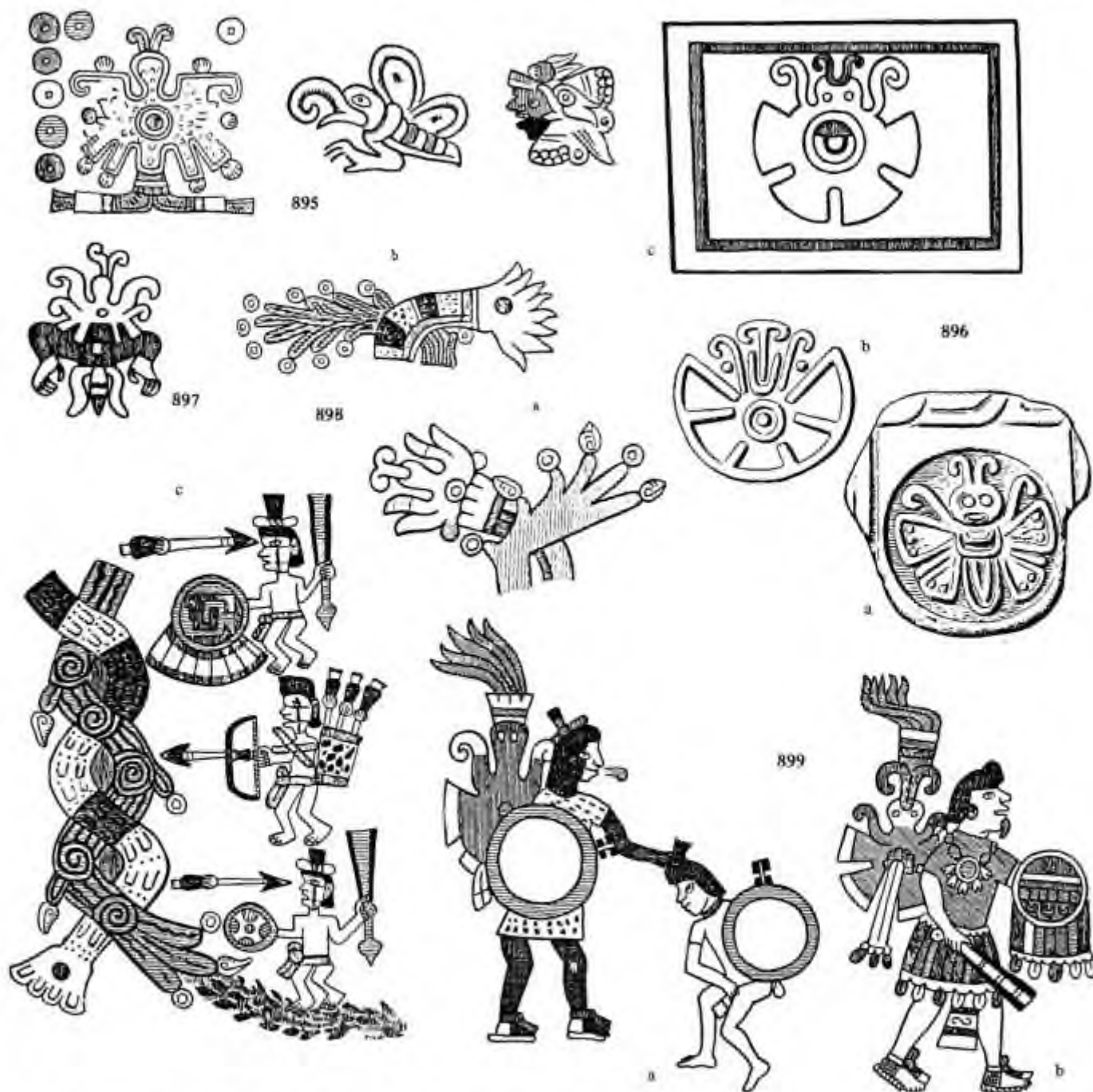


Fig. 895. The seventh of the 13 birds, lords of the 13 heavens and the 13 hours of the day. Borgia 71, Borbonicus, Aubin Tonalamatl.

Fig. 896a. The butterfly, relief on the handle of an earthenware vessel, Huexotla (Tezcoco district). b. the butterfly. Pottery die; c. "manta de mariposa," manta with butterfly pattern. Magliabecchiano f. 8 verso.

Fig. 897. Mixed figure composed of butterfly and fire snake

(*xihcoatl*). Nuttall 35.

Fig. 898a-c. *atl tlachinolli* or *teotl tlachinolli*, the glyph for war. a. Borbonicus 18 (in the headpiece of the god Chantico). b. Aubin Tonalamatl (in the headpiece of the god of the morning star). c. Humanfía manuscript (Humboldt ms. III-IV).

Fig. 899a. Valiant warrior with butterfly device. Mendoza 43. b. warrior with third butterfly device, *datoani pilli*. Sahagún ms., Academia de la Historia.





Fig. 900. Butterfly costume and round shield with eagle foot design, tribute from Chinampaneca. Mendoza.

Fig. 901a. *caquan papalotl*, the yellow and black butterfly, symbol of leadership. Sahagún ms., Academia de la Historia. b. *dilpapalotl*, the black butterfly as a war symbol. Sahagún ms., Academia de la Historia. c. *itzpapalotl*, the obsidian butterfly, as a war symbol. Sahagún ms., Academia de la Historia.

Fig. 902. *teocultlayacapapalotl*, nose pendant of gold plate, Calle de las Escalerillas, México.

Fig. 903. Pottery vase from Teotihuacan. Museo Nacional de México.

Fig. 904. Fragment of vase, Teotihuacan. Museo Nacional de México.

butterfly's wing (Fig. 910).

Of the other pictures named above, Fig. 895, numbers 2 and 3, are an attempt to picture the insect with head, body, and wings. In all the others the butterfly is represented in a tolerably uniform conventionalized style, of which Fig. 896a-c gives the best idea.

Of these, only in Fig. 896a is there a division into body and wings. This is a realistic picture taken from a pottery vase. In the rest, and especially in the pictures of the manuscripts, this division is wholly wanting. As in the Itzpapalotl pictures, there is a wheel-shaped expansion whose sides and lower portion are divided in different ways, while the front or upper edge bears a head that has two eyes (Figs. 896, 899, 901) and ends in a pair of spiral involute affairs which could correspond to the butterfly's antennae or spiral tongue.

In the first case, however, the spiral would be incorrect, and in the second, the fact that there are two would make this unnatural. In the center of the disk, however, we see an eye more or less distinctly drawn (Figs. 895, number 1, 896-898), /719/ or an equivalent of such an element to what we shall have to call a rosette, for example, in the warrior devices of Figs. 899 to 901. The sides and lower edge of the disk consist normally of two pairs of wide, straight, wing-like pieces and a front pair of narrow, involute strips, which repeat the pair of "spiral tongues" (if I may be allowed the expression) mentioned before.

These elements, which in Fig. 895 form a straight line and in Fig. 897 are doubled, are hard to explain from the nature, of the insect. They might be antennae if they sat forward a little more on the head and not, as here, outside and at the base of the head, and if they did not form a straight line, as in Fig. 895, for example, and were not on a level, as it were, with the wings. We can also imagine that the tongue-flames of the true fire-butterfly are preserved in them (Figs. 897, 898).

In nose pendants (Fig. 902) these involute strips form the ends of the crescent that in the true nose crescent are inclined to be spiral (*yacameztli*). And this, the adoption of the spiral ends of a crescent nose ornament, which originally characterized the moon gods as such but at the same time was also said to distinguish them as fire gods, I think, is nevertheless the most plausible explanation.

In Figs. 895, 896a, 902, there is a single projection on the edge opposite the head, which in the last picture is separated from the disk and could be considered as a suggestion of the butterfly's body. In Figs. 899-901, on the other hand, the pendant tassels are apparently nothing but an appendix to the central rosette.

Other butterfly pictures which have the more natural appearance of this insect than these very conventional-

ized types, are found at Teotihuacan, the famed ancient center of culture, which at the time of the arrival of the Spaniards had long been /720/ forgotten and lay in ruins. Here in modern times we may still see the two mighty pyramids of the sun and moon and a straight street flanked by foundations of houses that leads *from* the foot of one pyramid to the other, past wall-like structures and other remains. Among the abundance of antiquities of varying size that have been exposed here by the rain, or in the opening of graves, are vessels painted in peculiar faint colors, of which Fig. 903 is a specimen and Fig. 904, a fragment. A picture of the butterfly appears on both.

In Fig. 904 the body and two pairs of wings are clearly outlined. The head is distinctly marked by the two large eyes /721/ and the single spiral sucking tongue. But an ornamental affair is added—a tuft of feathers—at the left side of the head, but this perhaps could represent only a part of the insect, an antenna. If it is an antenna it is curious that there is but one. In Fig. 903 the head and front wings correspond to those in Fig. 904. But there is a tuft of feathers on each side of the head, which facilitates their explanation as equivalents of antennae.

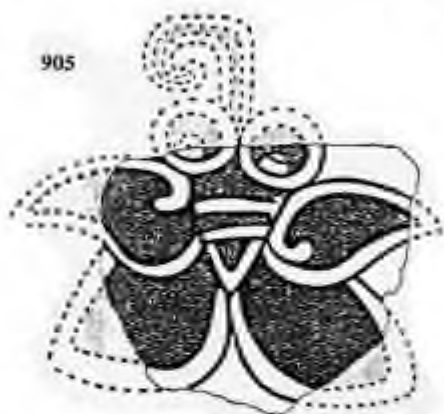
The lower part of the body and the hind wings are lacking, or the hind wings are blended into a disk, so that there is no longer space for the lower part of the body. Figure 904 is in /722/ fact a preparation to some extent for this, as are also Figs. 905, 906, since in all these examples the lower wings are placed too far behind; they are attached, so to speak, to the hind body. Figure 905 is a fragment of plaster I collected, the design of which exhibits the same conditions in reference to wings and body as Fig. 904, but of the head only the lower half of the eyes is preserved.

Finally, Fig. 906a,b are thin painted earthenware plaques that look like toys and which also clearly represent butterflies after the type of Fig. 904, except that there is no head, i.e. the two eyes and tongue are wanting.

These Teotihuacan butterflies are unique designs that -like the Teotihuacan antiquities in general—are to be considered neither as preliminary steps of the art forms of historic time nor are they to be derived naturally from them. In the butterfly forms of historic time previously discussed, as a rule, a feature was introduced into the picture of the butterfly that does not belong to it: this is the large eye everywhere forming the center of the picture.

This eye was introduced because the butterfly pictures were fire /723/ butterflies, symbols of flame and the spirits of the dead, and these, dwelling in the sky, were considered as stars. This idea received a further develop-

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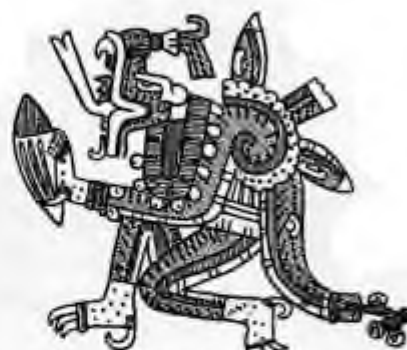


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Fig. 905. Design (butterfly figure, restored) on a piece of plaster, Teotihuacan. Seler Collection, Royal Museum of Ethnology, Berlin.

Fig. 906. Thin earthenware plaques representing butterflies, Teotihuacan. Museo Nacional de México.

Fig. 907a,b. Itzpapalotl, the obsidian butterfly, symbol of the day sign *cozcacuauhtli*, "vulture." Borgia 11, Vaticanus B 29.

Fig. 908. Itzpapalotl, lord of the fifteenth Tonalamati section. Vaticanus B 63.

Fig. 909. Itzpapalotl, symbol of the day sign *cozcacuauhtli*, "vulture." Vaticanus B 92.

Fig. 910. Itzpapalotl, the obsidian butterfly, on top of a sculptured stone. Aristides Martel Collection, México.



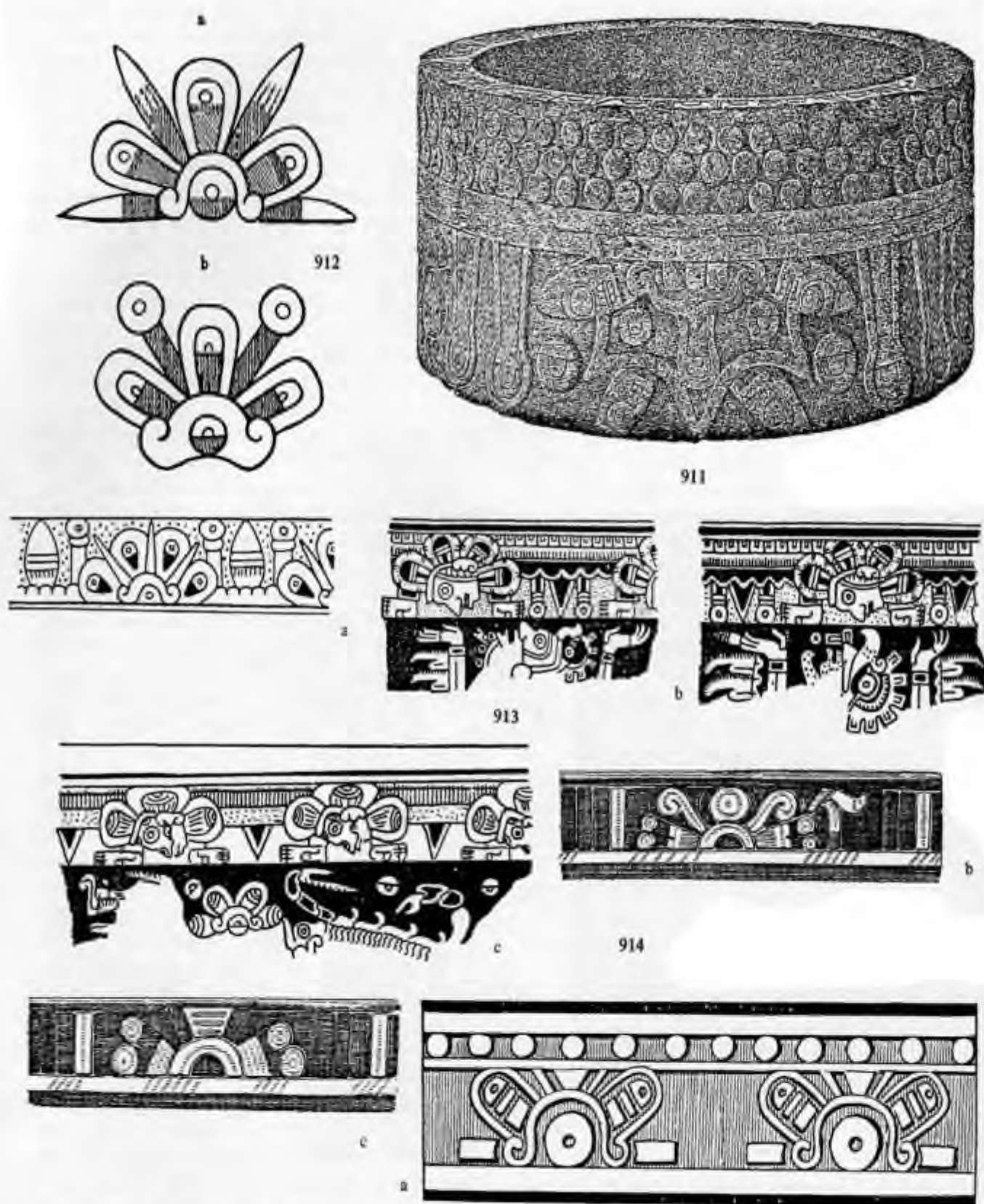


Fig. 911. Starry sky on the cylinder of a stone vase for sacrificial blood (*quauhxicalli*). Museo Nacional de México.

Fig. 912. Light eyes or stars (*itzpapatl*). a. Vienna 4 (upright in temple). b. Fejérváry Mayer (fragment of morning star god).

Fig. 913. Light eye and morning star. a. border on the east side of the court adjacent to Palace IV, Mitla. b. border on the east

side of the court adjacent to Palace I, Mitla. c. border on the north side of the court adjacent to Palace IV, Mitla.

Fig. 914a. Stone relief. Museo Nacional de México. b, c. design on the exterior of pottery from Pajacuarán (Zamora district, State of Michoacan). Mora Collection, Museo Nacional de México.

ment that is expressed in Figs. 911-914.

Figure 911 shows us the cylinder case of a large stone vase that obviously was used in sacrificial rites. There is a relief at the top corresponding to the whole circles on the black ground of the manuscripts, i.e. it is supposed to represent the starry sky. Below this border are pendant eyes, and in the center, a figure with a row of teeth and a lip-a jaw, therefore, after the style of the gaping jaw of the earth divinity in toad guise.

Around this is a lobed design corresponding throughout to the one in Fig. 910 behind the arm of Itzpapalotl, and this too has stone knives in the depressions. That this design as a whole is to be interpreted as "Obsidian butterfly," Itzpapalotl, and as a star, was first correctly perceived by Preuss. The relation to the usual forms of the butterfly picture (Figs. 895-901) is here only increased by the fact that in the center of the wheel-shaped surface, resting on the edge of the mouth or hanging from it, there is a large pedunculated eye, which clearly corresponds to the eye in the center of the disk of the butterfly figures of Figs. 895-902. The other eyes on the cylinder and with the Itzpapalotl figure are only intended to mark the darkness of the firmament, after the manner of the usual representations of night and the firmament.

With this figure on the cylinder of the stone vase /724/ are connected, however, well known designs of which so many types are given in Fig. 912 and which in Fig. 913a are combined with pedunculated eyes and stone knives into a border, like the Itzpapalotl figure in Fig. 911, and which were long ago identified as pictures of stars. I have always called these figures "star eyes" or "radiating eyes." The singular feature is that where in Fig. 911 the toothed jaw of /725/ Itzpapalotl is given, a large eye appears as the center of the whole design and its most essential part, below or above which there is an element that in Fig. 911 forms a lip and here appears like a brow with curling ends.

Starting with the fact that here the central eye is the essential part-the eye denotes the star-I have thought that additional eyes were placed over the brow to emphasize the idea of the firmamento or the dark, nocturnal brow. As a matter of fact, eyes of this sort are introduced customarily into the death god's hair, and are also placed on the eye brow of the earth monster (see, e.g. the picture of the earth jaw or the Colhuacan cave, on the west side of the Huitzuco monument).

And in the Maya manuscripts, the Ah bolon tz'acab or water serpent that also appears as the head dress of the death god, and of the old god and the moon god, is drawn with a dark eye brow over its eye, from which three pedunculated eyes run upward. This is a symbol of the night sky or the firmament (see p. 296 above, Figs.

831, 833). Comparison with the Itzpapalotl symbol of Fig. 911, however, suggests that here the eye or the star completes an Itzpapalotl picture, or is combined with it.

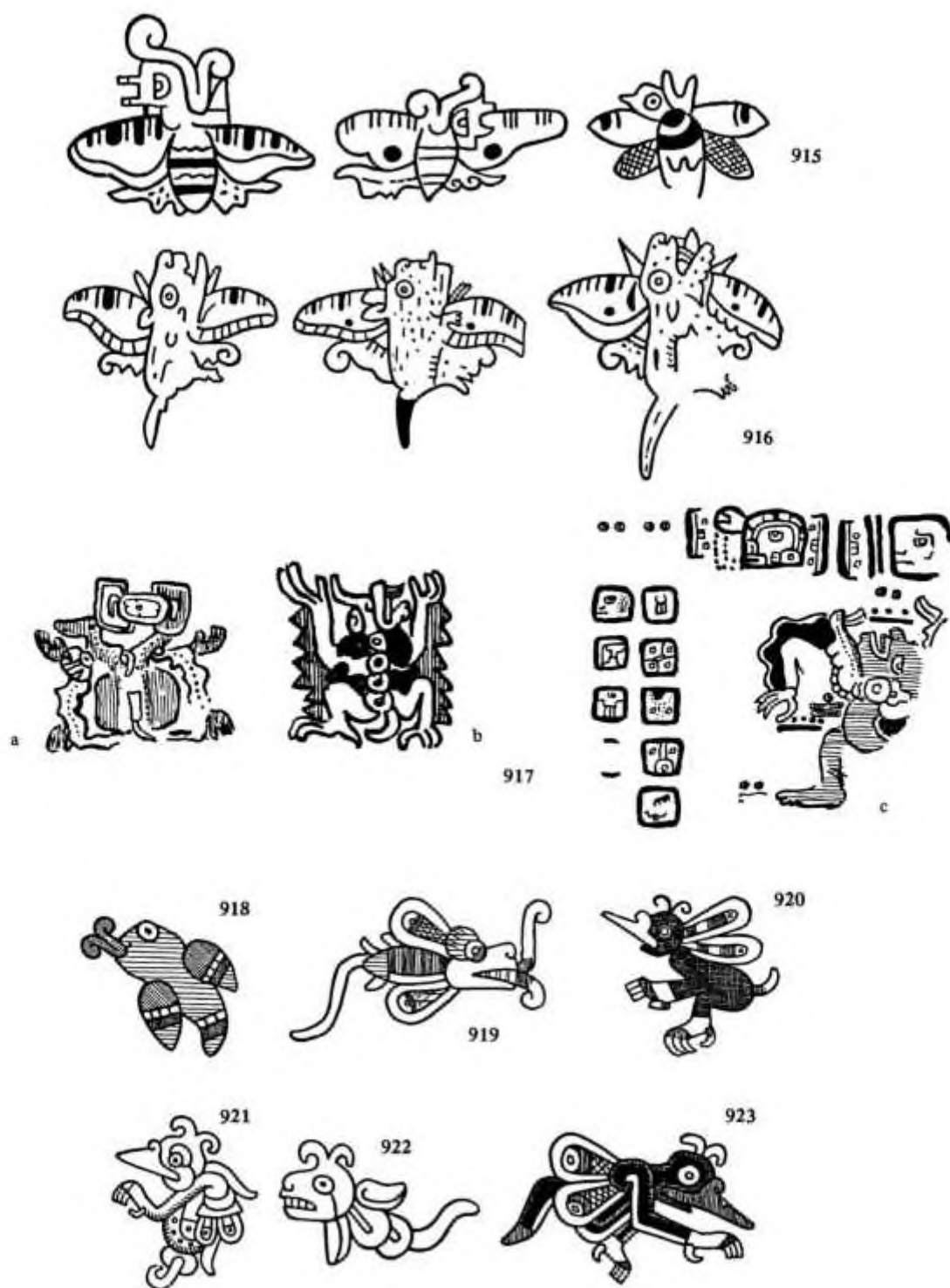
Here then the wings of the butterfly would also be drawn as eyes. The stone knives flanking the wings, which in Fig. 912a are clearly /726/ seen to be of stone, would be changed into spines, or indeed replaced by eyes, as in Fig. 912b, and the element of the butterfly picture appearing as a kind of crescent with spiral involute ends would be added as brow to the central eye. On the frescoes of one of the Mitla palaces four eyes corresponding to the double pair of butterfly wings are in fact introduced into the border of the central eye (Fig. 913a). It is normal and regular, however, for three eyes to border the central eye as wings, with two to four spines or thorns filling the interstices.

A further development, or another form of the same butterfly symbol, occurs in the frescoes of the east side of the court adjacent to Palace I and on those of the north side of Palace IV at Mitla (Fig. 913b,c). Here in a border also composed of pedunculated eyes and rays, we see faces surrounded by eyes as if they were wings, which here, however, are not facing upward but downward, and are looking down from above, or descending. Here, therefore, the middle eye of the star or ray eye is replaced by a face. There are sometimes four eye-like wings (Fig. 913b), sometimes three (Fig. 913c). The spines or rays filling the interstices are wanting.

That these faces here, as the central eyes of the star or ray, however, are to be designated stars, or the spirits of dead warriors who were supposed to dwell sometimes in the east sky and again in the north heaven, is clearly proved by the fact that in Fig. 913c the faces looking down or descending are drawn with the quincunx, the Venus glyph, like Tlauizcalpantecutli, the Venus deity.

/727/ Endless variations of these star or ray eyes, or butterfly figures occur on the monuments, stone reliefs, and other antiquities. I cite here only two borders from the pottery of Pajacuaran,<sup>2</sup> Michuacan, where in one case (Fig. 914b) the butterfly may be plainly seen with its head, the pair of designs forming a crescent and curling at the ends, and the wings clearly representing pedunculated eyes-which, however, in reality is due to a reversal of the star or ray eye, an exchange resting on a confounding of the head and tail ends-and in the other case (Fig. 914c) we have a purely ornamental design that is a regular variant of the star or ray eye.

Very peculiar butterfly figures occur in a picture writing that Martinez Gracida chanced upon in the village of cacatepec (Jamiltepec district), and which has been published in a superb reproduction by Dr. Antonio Peñafiel.<sup>3</sup> In this the butterfly sometimes occurs, apparently, as a



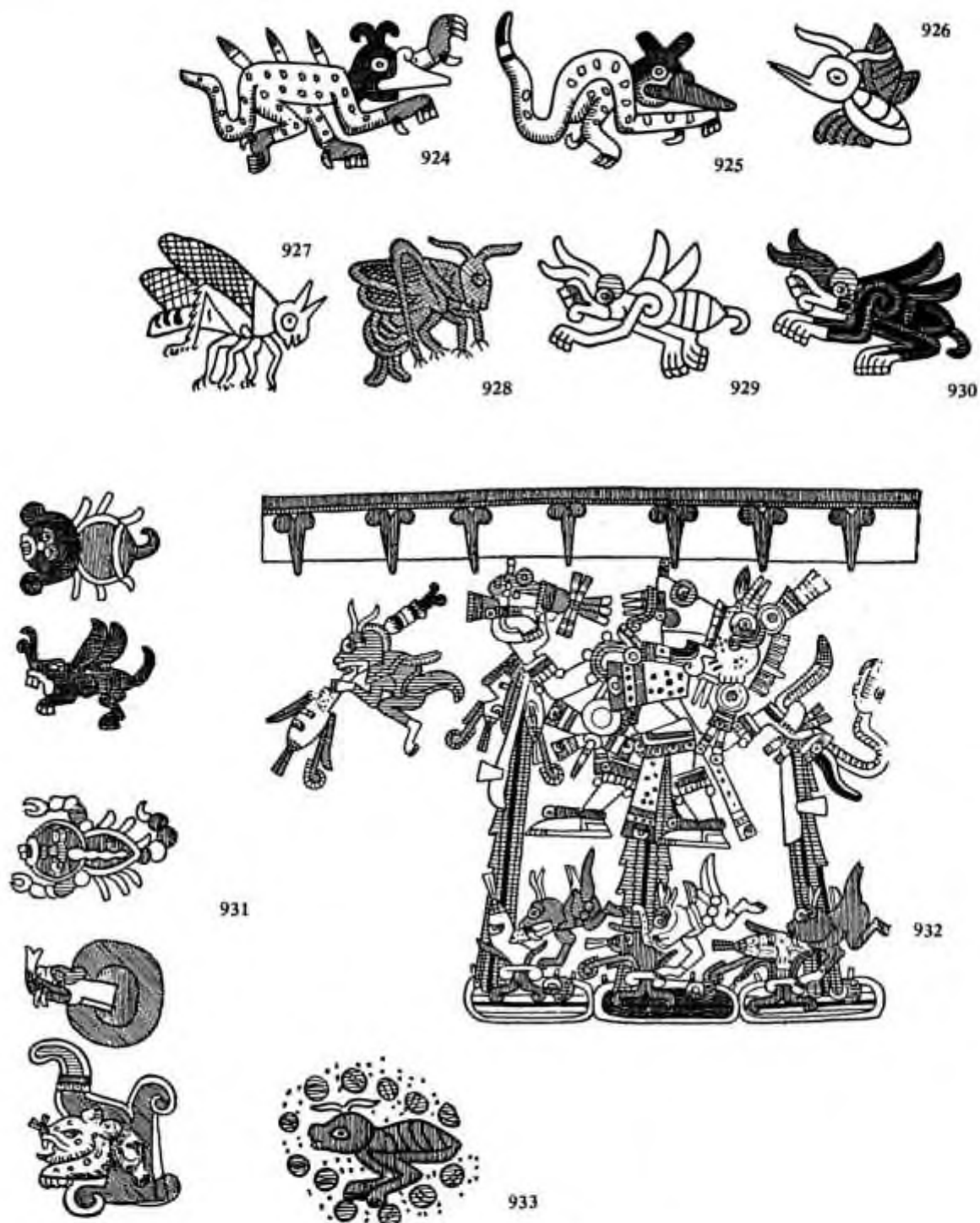
Figs. 915-916. Glyph for Yucu-pattó, "Butterfly mountain." Lienzo de Zacatepec.

Fig 917a. Star picture of the butterfly(?). Pérez 24. b. the but-

terfly(?). Cortés 8. c. The butterfly, symbol of the star god of the north. Tro 2c.

Figs. 918-923. Nuttall 55, 19, 3, 61, 69, 38.





Figs. 924-925. Mixed forms. Nuttall 12, 23.

Fig. 926. Glyph of Pipiyoltepec. Mendoza 15, 3.

Figs. 927-930. Grasshoppers (*chapolin*): Figs. 927-928, Glyph of Chapultepec. Boturini 9, Mendoza 34, 3; Figs. 929-930, Fe-

jerváry Mayer 5.

Fig. 931. Bologna 21.

Fig. 932. The rain god of the *tecpall* years of the north and the second of 4 Tonalamatl sections, "one death." Borgia 27.

Fig. 933. Glyph of Azcapotzalco. Mendoza 4, 1.

place name (Fig. 915) and again as the name of persons or a title of rank (Fig. 916). In the archives of this village inhabited by Mixtecs there are, in fact, names, so me of which belong to the Mexican /728/ language (Papalotl), and others to the Mixtec (Yucu pattó), which may be translated "Butterfly" or "Butterfly mountain," "Butterfly village."

Figure 915 shows the body of an insect and a sort of insect's head and two pairs of wings, of which the first, the front or upper pair, is the larger, and to some extent looks like those of a butterfly, while the lower pair is stunted, and in the third figure very much resembles a membranous wing, after the style of the hind wings of a beetle covered with hard wing shells. In Fig. 916 the head and body suggest a small quadruped-feet are in fact indicated-but this tailed quadruped has butterfly wings after the style of those of Fig. 915.

From Maya manuscripts I am acquainted only with the pictures in Fig. 917a-c, which I should like to place provisionally with the butterflies. One (Fig. 917b) is on Codex Cortés 8, which is pretty well effaced, and stands opposite the old god Itzamná. The other (Fig. 917a) belongs to the series of animal figures (Codex Perez, pages 23, 24) with mouth opening upward, swallowing, as it were, a sun glyph pendant from a celestial shield. These are pictures of constellations. The third (Fig. 917e), page 2, is determined by the glyphs of the deity with the face formed of a snake, the god of the north in the Maya manuscripts, and by the glyph of the god with the line at the outer corner of the eye. Both are in all probability to be considered as divinities.

#### 42. Other Winged Insects

*Mayatl* is the general Mexican name for "beetle."

The muck worm is *tecuitleololo*. The giant beetles (*Dynastes hercules*, etc.), having horns, are *temolin*; a large red beetle, which does not fly, is *pinacatl*.

Flies and gnats are *cayolin*; gadflies, *tecmitotl* and *ol-tetzean*. Bees are *pipiyoli* or *quauh-necu-cayolin* ("honey gnats," "honey flies"), bumblebees and wasps, *tlaletza!li* or *tlaletzatl*, tailed wasps, *xicotli*.

The common Mexican word for grasshoppers is *chapolin*, *acaehapolin*, and the lexicon also gives *acachatl* for "grasshopper."

The ant is *azcatl*, the black ant, *tlilazcatl*, the red, *tlatlauhqui azcatl*, and the poisonous ant, *tzicatl*.

In Zapotec the beetle is *pinijto*, *xiconijto*, muck worm, *maní pinijto quihi* (or *quehi*), *xiconijto quihi* (or *quéhi*), the red beetle that does not fly, *xiconijto cháhui*. Flies and gnats are *peya*, houseflies, *peya yaha*, green flies, *peya laze*; gadflies are *texí quega*, and the large horse fly, *texi quega naroba*. The general name for bees and

wasps is *peezo*. The honey bee is *peezo china*, the small bee, *peezo pecuichi*; wasps, *peezo pizohue*, *peezo pizoya*, *peezo máo*; hornets, *peezo bizoche*, *peezo tola*.

The names given for grasshoppers are *coxxato*, *colée*, *colócha*, *támachácha cocóo*, *péohe cóo*. /729/ The ant is *maní pitij yána*, the small black ant, *pitij yaza*, the large ant, bearing the kernel of maize on its back, is called *maní pioba*.

In Yucatec *ikel* (from *ik*, "wind," therefore corresponding in meaning to the Zapotec *péya*) is the term for "insect," "winged insect" in general. Special kinds of beetles are called *choch* and *thuyul*. Gnats are *uz*, large flies, *yaax cach*, bees, *ikel cab* ("honey insect," "honey fly"), and wasps, *xux*. The grasshopper is *zaak*, ants, *zanic* in Guatemala and *zinic* in Yucatan.

Figure 918, from Codex Nuttall 55, represents a footless creature, the body of which is painted blue, while the ends of its wings and tail are painted in the colors of the glyph *chalchiuhtl*, "precious, green stone." This is probably intended to represent one of the small buprestis or "bum cows."

In the Nuttall we also find a number of pictures that are evidently also intended for winged insects, in which the wings are drawn as eyes-as in the star or ray eye discussed above (Figs. 912-914), the special form of the Itz'papa symbol. In one of these pictures (Fig. 919) a /730/ head, which has a large round eye and an eye brow but has nothing to characterize it further, is placed on the insect body provided with wings.

In Fig. 922 the head is characterized as that of an insect, at least by a pair of designs probably representing feelers. The others, Figs. 920, 921, 923, have similar feelers, and in addition a long pointed beak like that of the hummingbird (see p. 233 above, Figs. 372, 373, and 383-385). These must therefore be stinging insects, stinging flies, or gnats, or, it is true, the determination does not aid much in the identification.

The bee is also drawn with a similar pointed bill in the Mendoza (Fig. 926). Here, of course, a mouth stinger cannot be intended-bees have a stinger on the rear of the body-the pointed bill is probably intended here to represent the much prolonged honey tongue.

Peculiar mixed forms are in the Nuttall (Figs. 924, 925), which combine a jaguar's body with this insect head armed with a pointed bill.

A depiction of the grasshopper (*chapolin*), which though not true to nature yet is recognizable as such, occurs in glyphs on the rock of Chapoltepec at Mexico City (Figs. 927, 928). Less natural pictures, but which are intended for grasshoppers, are in Fig. 932, which in the Borgia illustrate the barren *tecpatl* years characterized by drought and poor growth. A like type is repre-

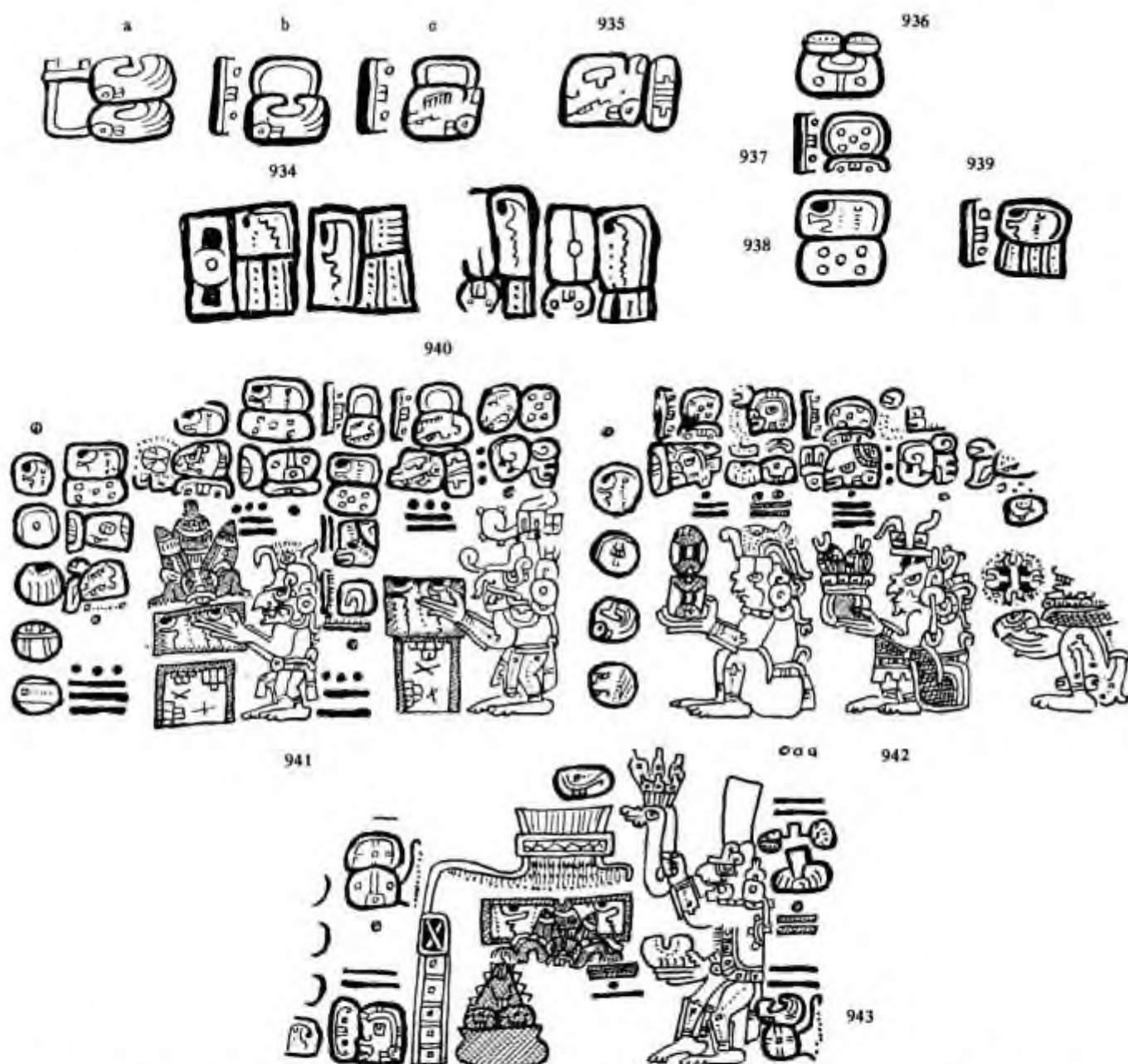


Fig. 934a. Class glyph of the 20 celestial gods. Dresden 4a-10a. b. class glyph of Itzamná and the death gods who appear as descending insects. Tro 10\*a. c. class glyph of the 13 gods who appear as descending insects. Tro 10\*b-7\*b (cf. Fig. 945). Fig. 935. Glyph of Chac, the rain god. Fig. 936. Class glyph of "descending feather." Tro 9\*c. Figs. 937-938. Class glyph of "descending star." Tro 8\*a, Tro 9\*a. Fig. 939. Glyph of "descending insect." Tro 10\*a.

Fig. 940. Glyph of the fifth cardinal point. Cortés 22, Tro 35\*. Fig. 941. The death god and the old god Itzamná, the god with the lengthwise stripe on his face, the rain god Chac, and the descending insect. Tro 9\*a. Fig. 942. The maize god, the goddess as insect, and the death god. Tro 8\*a. Fig. 943. The descending insect and the four cardinal points. Tro 7\*a.



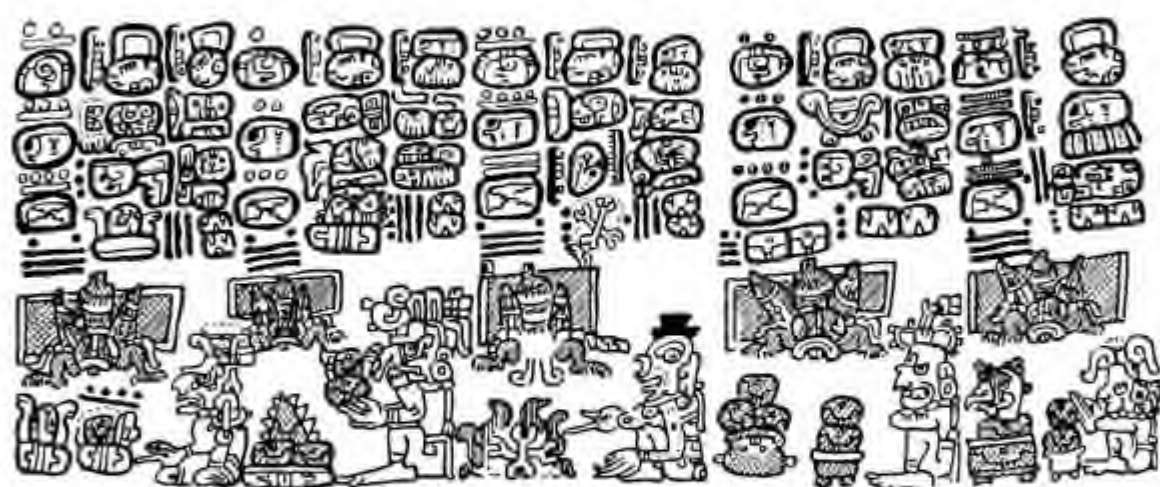
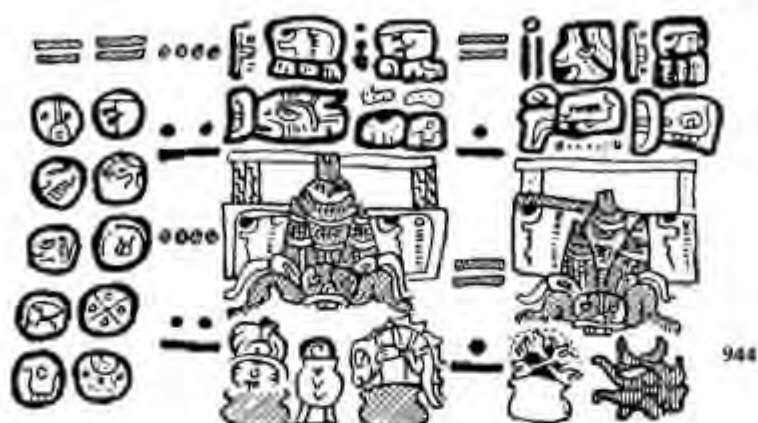


Fig. 944. The descending insect and the *tzizimil*, Tro 8\*c.

*tzizimil*, Tro 10\*b-7\*b.

Fig. 945. The 13 *cib* days and the descending insect, and the

sented by grasshoppers in the unique series imitating a column of the Tonalamatl arranged in five members, given in exactly analogous manner on the pages, covered with rows of numerals, of the reverse of the Bologna and on Fejérváry Mayer page 5. In the Bologna the series (Fig. 931) is to be read from bottom to top as follows: jaguar, snake, scorpion, grasshopper, worm. On Fejérváry Mayer page 5 the order from above downward, and from right to left, is jaguar, spiny cactus, thorn acacia, serpent, black grasshopper (Fig. 930), scorpion, white grasshopper (Fig. 929).

The glyph of the well known city of Azcapotzalco (Fig. 933), a name meaning "In the ant hill," contains a picture in which, however, it is hard to recognize ants.

/731/ On Codex Tro pages 10\*-1 \* there are countless repetitions of an insect that Cyrus Thomas has explained as a bee. He therefore pronounced this entire series • 'a calendar for apiarists. "This explanation and designation have generally been accepted, and I myself must own to having applied the word "bee" to these insect pictures without closer examination.

In identifying natural objects, animals, plants, etc., in Mexican and Central American picture writing it is necessary to guard against too much license. If Fig. 926 with its unorganic mouth stinger should be called a bee, then the insect pictures of the Tro can also be explained as bees. In reality, however, these two-winged insects with mouth equipped for biting, short ovipositors at the tail, and with /732/ wings and body striped alike, have very little resemblance to a bee.

Figure 926 must be explained as a bee because this picture is the glyph of Pipiyoltepec, "Place of bees." But in order to explain the insect pictures of the last part of the Tro also as bees there must be definite proof suggestive of such an identification. This evidence, however, is wholly wanting. The fact that the Yucatecs kept bees extensively no one will consider sufficient grounds for such an identification.

If, however, we should wish to assign these insects in the Tro to a definite class, then their appearance as a whole-flattened head, mouth equipped for biting, analgenital orifice, and especially shape of wings-favors beetles. Though I should be most willing to do so, I /733/ cannot believe with Stempell that the antennae, which consist of one of several basal portions and a lash, are especially characteristic and are intended to mark these as bees.

The jointing of the antennae, the differentiation into a larger basal portion and a forked end piece composed of smaller joints, characteristic among bees of queens and workers, does not correspond at all with the drawing of the antennae of the Tro insects, in which the lash-shape

of the end piece is always distinctly emphasized (see in particular Figs. 942, 946, 947).

A conspicuous part is played in Guatemalan t-lava traditions by yellow beetles (*k'a-vonon*) and yellow wasps (*k'a zital*). The Cakchiquel annals<sup>4</sup> relate how the different tribes started out from Tula and how each tribe received its "bundle," which later composed its tribal peculiarity. Thus the Vuk ama'k, /734/ the "Seven tribes," the inhabitants of the Tierra caliente, the Tz'utuhil and their neighbors, received riches and the entire Toltec culture, but the Oxlahu ch'ob ahlabal, the "Thirteen divisions of warriors" (i.e. the highland tribes, the Quiché and their kindred), received the weapons of war -*ch'a pocob achcayupil c'uc'um zahcab*, "spear, shield, quilted armor, white down feathers, and white chalk" -with which they are said to have obtained wealth and possessions. But with these weapons of war, also given to them were:

*k'a vollon k 'a zital*, yellow beetles, yellow wasps  
*zu'c moyeuh xo'ko! k 'ekal hab*, clouds, mist, filth,  
 gloomy rain.

And in another tradition, which is obviously later and somewhat garbled, and of which we have as yet only a Spanish translation,<sup>5</sup> it is related that, along with warriors fighting at night, the "nahuales," the magicians, are active, who call forth clouds, thunder bolts, lightning, hail, earthquakes, and other similar things, and cause hornets, wasps, snakes, and "ronrones" (beetles making a loud buzz) to fly up from large pots, and with these they put the enemy to flight. I shall make no direct practical application to the Tro insects, but I consider it important to point out that in this tradition of the Guatemalan tribes beetles and wasps appear as dread forms that are connected with clouds, mists, darkness, and rain.

Now let us consider the Codex Tro passages in question more closely. The representations begin in the upper section of page 10\* with Fig. 238 (p. 205). One of the most essential features is that in the entire series, from page 10\* to its close on page 1 \*, the insect is always drawn as flying down, descending-with the exception only of the three instances where it is pictured below among /735/ the personages drawn in full figure (Figs. 942, 946, 947). And we also note that the glyph of this insect (Fig. 939) is essentially identical with the glyph denoting the fifth cardinal point, the center, or the direction from above downward (see Fig. 940).

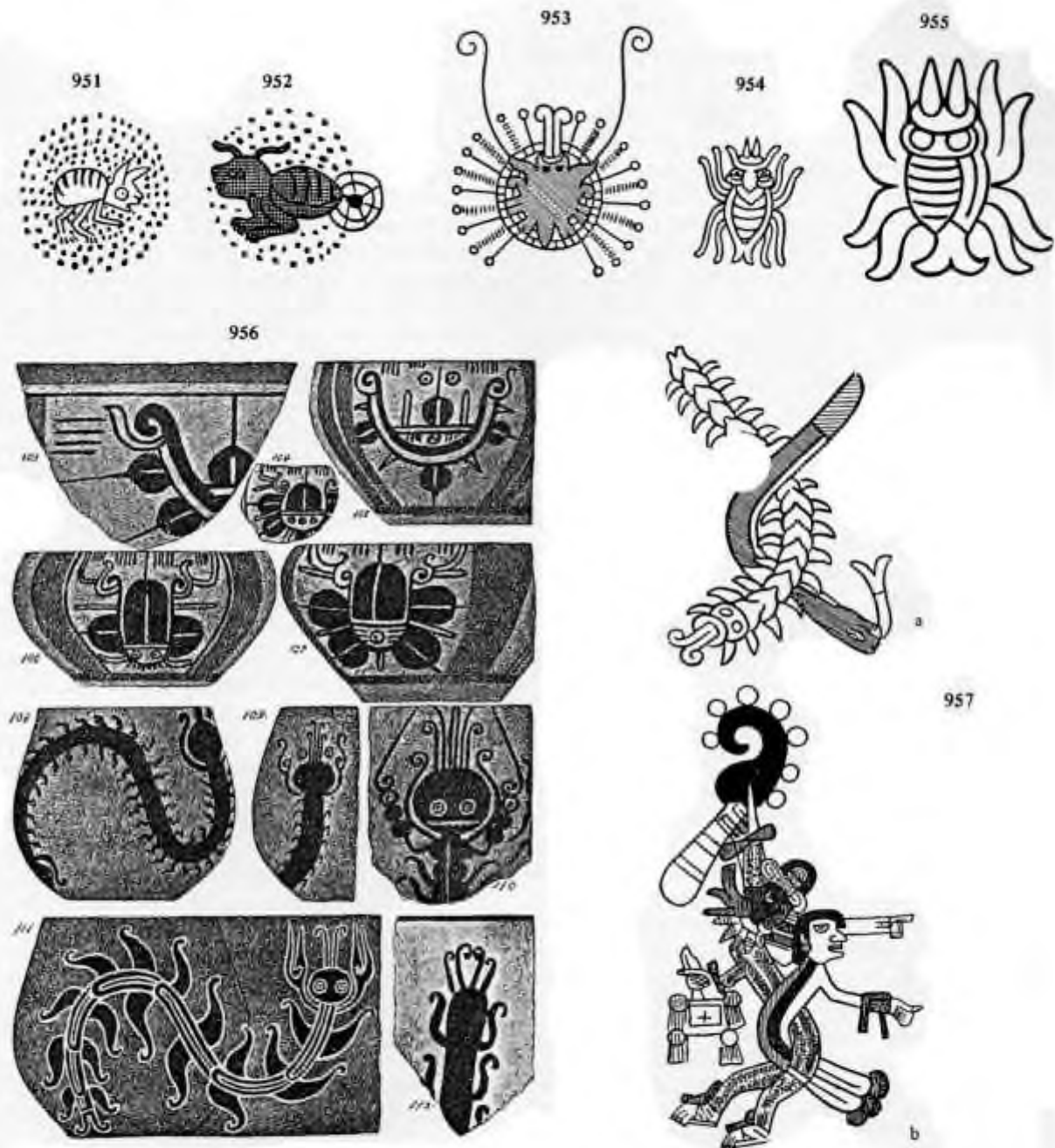
On page 10\*a of the Tro this down-flying insect occurs twice, each time in a temple within which an armadillo is sitting: the first armadillo is represented as alive, the second, as dead. There is no reference to such an



Fig. 946. The old goddess, the white woman. Tro 6\*b.  
 Fig. 947. The insect and the *tizimil*, in a temple. Tro 5\*, 4\*b.  
 Fig. 948a-c. The old goddess plaiting mats, Tro 11\*b-d.

Fig. 949. The descending insect and the *tizimil*. Tro 33\*b.  
 Fig. 950. The old goddess at a loom. Tro 34\*c.





Figs. 951-952. Glyph of Xaltocan. Boturini 6, Mendoza 3-7.

Fig. 953. The spider. Fejérváry Mayer 25.

Figs. 954-955. The spider = *tzitzimil*. Magliabecchiano f. 3 verso, Borbonicus.

Fig. 956. Beetles and scolopendras on pottery from Cerro Montoso (Vera Cruz). From Strehel, op. cit., pl. XI.

Fig. 957a. The serpent and the scolopendra, symbols of sky and earth, and Tlaçolteotl, regent of the thirteenth Tonalamatl section *ce olin*, "one rolling motion." Borbonicus 13. b. Quetzalcoatl and the worm, symbols of sky and earth. Aubin Tonalamatl 13.

animal in the groups of glyphs above the temple. The first of these two contains the glyphs of the old god of life, Itzamná; the other groups, those of the death god. And before these we find the glyph of the descending insect and an initial 01' class glyph (Fig. 934b) which seems to be essentially connected with the glyph of Fig. 934a—one of the two class glyphs that are specified for the sacred series of 20 gods on Dresden pages 4-10 (upper) and which seem to be intended to characterize them as fire gods and as sky' or star gods. Both in this glyph, Fig. 934b, and in Fig. 934a the essential element is *manik*, which as a day sign corresponds to the Mexican *macatl*, "stag." I have stated that the armadillo, which sits here in the temple, is probably intended to represent the god, which in one case stands forth in full splendor, and in the other is covered by the vessel and is partly or entirely invisible.

We find Itzamná and the death god near together in many places in the manuscripts, especially the Madrid. But it is very unusual for the number 26 to occur, as here, in the midst of the groups of glyphs before that of the death god (see Fig. 238). As throughout the manuscripts, the pictures and the glyphs are accompanied by a column of day signs with their (red) numeral, and /736/ by numeral s of addition (black), which lead to other numbers (red), the whole making a Tonalamatl.

As in by far the majority of cases, the column of day signs consists of five members of which there are 52 in a Tonalamatl, and 26 is half of 52. Though it is really selfevident that where two gods are represented, /737/ the first is intended to be determinative for the first half of the Tonalamatl, and the second for the second half, yet here by the explicit placing of a number 26 before the glyphs of the second god, very special emphasis is laid upon the fact that this deity, the death god, has to do with the second half of the Tonalamatl, or perhaps also that this second deity, the death god, is said to be the important person here.

This impression is strengthened when, on continuing our examination, we again find on page 9\*a the insect flying down and four deities specified, part by glyphs alone and others by glyphs and picture, and the first is the death god (Fig. 941). It is very unusual for the pictures of divinities to begin with the death god, and the natural inference is that the intention was to state that the death god is characteristic of these series in which the descending insect is represented.

The principal picture, which must give us the chief clue to the nature of this down-flying insect, is thus the series standing directly under the initial picture and extending in the second section (b) from page 10\* to 7\* (Fig. 945). This also runs parallel with a Tonalamatl, but

one represented in a very unusual manner by 13 columns of 20 day signs each, of which the first three are always drawn and the other 17 are indicated only by the difference number 17 (in black). The initial sign is invariably the sixteenth day sign *cib*, corresponding to the Mexican *cozcaquauhtli*, "vulture."

In the first of these 13 columns the *cib* sign is joined to the numeral 7, but 7 *cib* directly follows 6 *men*, i.e.

the day with which the second half of the Tonalamatl represented on page 10\*a begins. And this is the half for which, as I stated above, the death god is determinative, who, /738/ as is probable for the reasons alleged above, must at the same time be considered as the principal person of page 10\*a, the initial page of this entire section.

It follows, therefore, that for these insects of the last pages of the Codex Tro the day sign *cib* is characteristic, and that at the same time it has a special connection with the dark, the night side of existence. The day *cib* corresponds to the Mexican *cozcaquauhtli*, and in the Mexican manuscripts its symbol is the demon Itzpapalotl, the • 'Obsidian butterfly," representative of the spirits of the female warriors, those who died in childbed, who live in the west and descend to earth as specters of darkness, as the Tzitzimime.

A relationship of this demon, the Obsidian butterfly, to the insects of the Tro that resemble beetles, therefore, is possible, and indeed we can designate these beetles directly as Tzitzimime, as demons of darkness or' as star gods, or' as spirits of the dead who are descending to earth.

I note in the first place that this beetle of the Tro is represented on page 8\*a as a woman (Fig. 942, number 2), and that also number I of the principal series (Fig. 945) is represented in a woman's garment and kneeling on the ground like women, though with the glyph and features of Itzamná. Finally, on pages 7\*-5\*b we have in connection with the 13 gods representatives of the 13 days *cib* and the descending insect, a second series of seven gods who repeat the principal types of the 13 gods and who clearly are also considered as representatives of the descending insect.

The fourth divinity here is the old goddess, the white woman. She is represented with the same antennae on top of her head, consisting of a basal portion and an end lash (Fig. 946), as occur on the heads of the insect represented in full in Fig. 947 and of the beetle woman, number 2 in the series of Fig. 942.

I observed above that the insect of this last section of the Tro is always drawn flying down, and that the principal element in its glyph is that denoting the direction from above downward (Fig. 939). I add also that in three other glyphs, which occur as class glyphs in sec-



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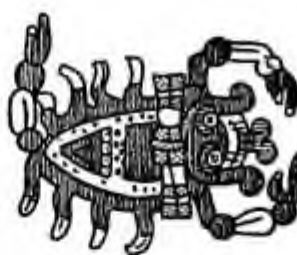
959



960



b



c



Fig. 958. Xochiquetzal, regent of the nineteenth Tonalamatl section. Borbonicus 19.

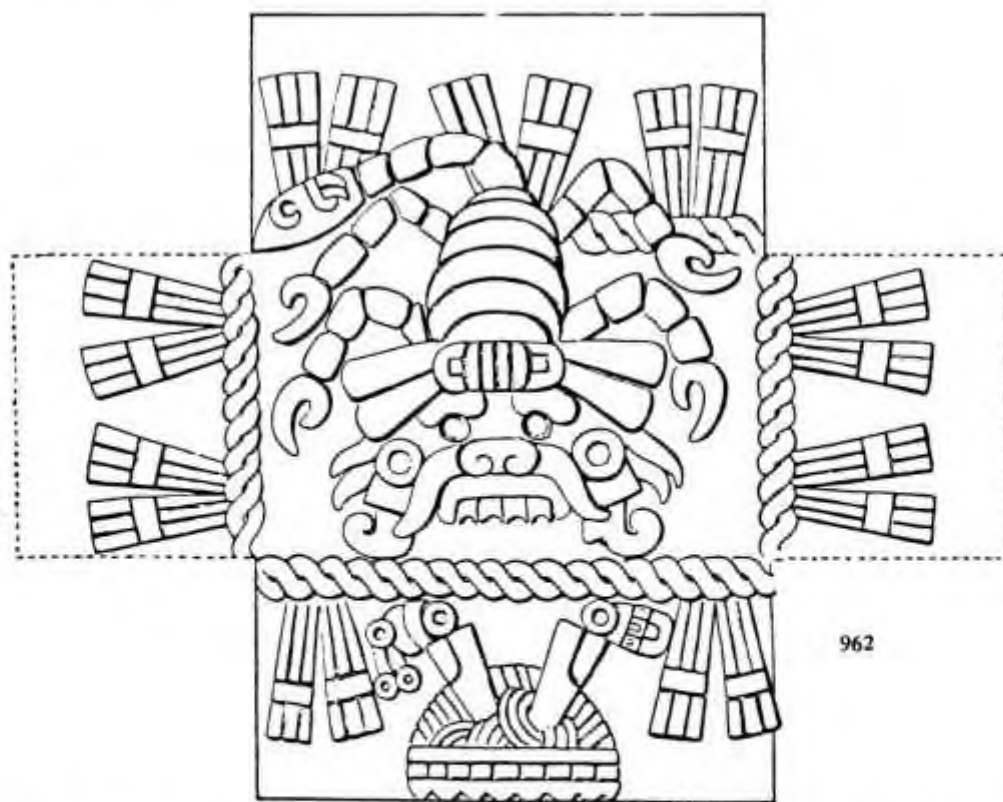
Fig. 959. Fejérváry Mayer 29.

Fig. 960a-c. Xiuhtecutli, the fire god, lord of the ninth day sign. Borgia 13, Vaticanus B 32, 89.





961



962

Fig. 961. Dance gods in opossum and coyote(?) masks, lords of midnight and the lower region. a. Borgia 59. b. Laud 33.  
Fig. 962. *colotl*, "scorpion," sign of castigation, and *çucutapay-*

*oll*, grass balls, in which are stuck the two agave leaf points (*uitztl ezco*) smeared with blood. Relief on the top and front of a stone seat. Royal Museum of Ethnology, Berlin.

tions treating of the down-flying insects, the same idea is expressed. Figure 936, the class glyph on Tro 9\*c, contains in its upper part the element *kuk*, "quetzal feather," and in its lower, an inverted *ahau* sign, which can be an expression for "cabisbajo," "head over heels," the Tzontémoc.

Figure 937, the class glyph of Tro 8\*a, contains spots arranged in a quincunx, which can serve as a designation for "star," and the jaw opening downward, which also occurs in Itzamná's glyph; finally, Fig. 938, the class glyph of Tro 9\*a, displays the same element of the star in combination with *caban*, i.e. "brought down."

Lastly, we see /739/ the same *caban* in many pictures of this section directly below the descending insect, e.g. on the board on which the insects are placed (Figs. 941, 943-945). In this connection these *caban* boards can only mean they have to do with spirits that descend to earth.

I have repeatedly spoken of these spirits of the dead in other articles and have referred to the fact that they are considered rain bringers and were prayed to for rain. This is unquestionably connected with the fact that in Fig. 945 the main series, the class glyph, has the form of Fig. 934c, a variant of the class glyph of Fig. 934b, in which, however, the element *manik*, "stag," which represents a closed hand, is replaced by a hand holding a head, an element corresponding exactly to the main element of the rain god glyph (Fig. 935), except that the T-shaped eye of the latter is replaced by the closed death's eye.

/740/ In these pictures, therefore, the rain god Chac with his opponent, the god with the halved face, is always named directly after Itzamná and his opponent, the death god. And when in this connection the maize god also appears with his opponent, we are still within the same circle of ideas (see Figs. 942, 944, 945). And here too, finally, the reason is to be sought; for the fact is that, in the places I cited above from the Quiché and Cakchiquel documents, the yellow beetles and the yellow wasps are named as frightful specters, together with clouds, mist, darkness, and rain showers.

The whole section in which these insects play a part is a counterpart to the section embracing so many pages, Codex Tro 19-8, the so-called "calendar for hunters," which illustrates the hunting and catching of deer. The deer are the male dead. At the top of the section stands the picture of the black god drilling fire, the deity Ek chuah, the fire god. But the descending insects, as we saw, are the female dead. At the head of the section treating of them, i.e. directly before page 10\* of the Tro, we find the old goddess plaiting mats and netting nets (Fig. 948a-c). And here the old goddess is desig-

nated with the same glyph as 'white woman' as the insect on Tro 8\*a, which we see there sitting in female costume on the ground (Fig. 942) and as the old goddess having insect antennae, which on Tro 6\*b stands in the series of seven gods, the representatives of the descending insect, at the fourth place (Fig. 946).

I cannot extend these observations further or permit myself to render a more detailed explanation of the figures and glyphs of the pictures given in the text; but that this is no agricultural handbook, no "calendar for the culture of bees," and that accordingly no bees are represented here, will be clear from the above statements. If a more accurate zoological determination is desired, then, judging from appearances and referring to the *k'a vonon*, *k'a zital* of the Guatemala documents, I would be decidedly in favor of these insects being called beetles.

I mention also that the descending insect is in still another place in the Tro, on page 33\*b (Fig. 949), and there too is clearly connected with the old goddess, who is represented directly before, on Tro 34\*c, working at the 100m (Fig. 950).

#### 43. Spiders, Scolopendras, and Scorpions

The spider in Mexican is *tocatl*, the spider's web, *tocapeyotl*. They discriminated between *tlacoltocatl*, a large non-poisonous spider, and *tequantocatl*, a poisonous black spider; *tzintlatlauhui*, "with red hind body," was the name of another that is said to be poisonous, and this is also confirmed by Sahagún's editor, C. M. Bustamante. For another species that is also said to be poisonous, the name *tocamaxaqualli* is given, literally /741/ "pulverized mass of spiders." Still other species are given different names and described by Hernández.

In Zapotec the spider is *máni lopeyo*, the large nonpoisonous one, *nigola pitoce*, the black poisonous species, *huechij*, and the species with a red mark on its back, *huechi quij* or *huechi guei*, and the other small poisonous variety, *huechij pechecha xono*.

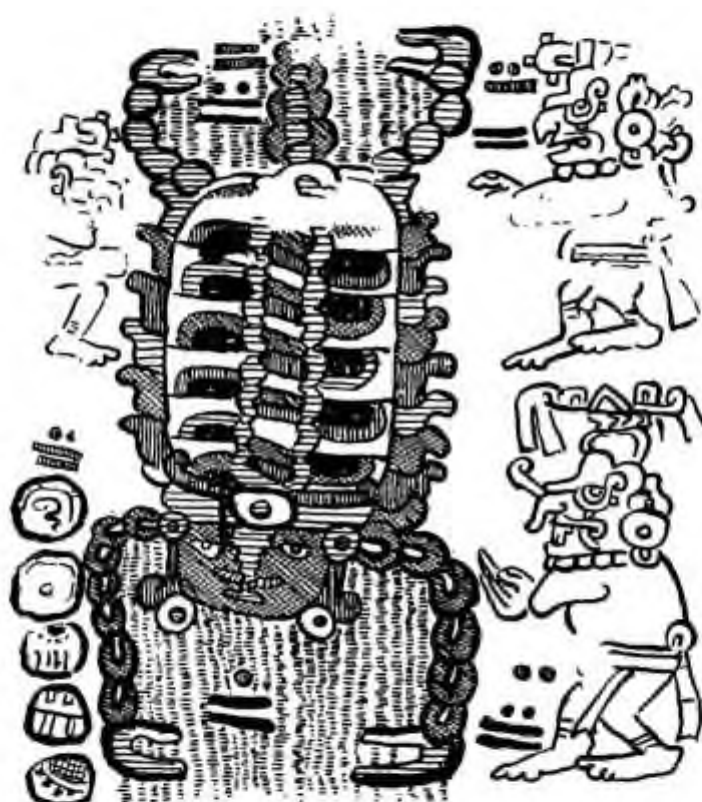
In Mayan there are the names *am* or *leum*. The large black spider called "tarantel" by the Spaniards is named *chiuol*, a black poisonous variety is *couoh*, a word that also occurs as a Yucatec family name.

In the Mexican manuscripts of historical content we meet the spider in the glyph of Xaltocan (Figs. 951, 952)-very poorly drawn pictures in which only in the second figure could an unbiased observer be led to the assumption that a spider was intended here, and this from the cobweb placed at its rear end. Figure 953 is rather better. This, with a skull, is given in Fejérváry Mayer with two old goddesses, who are probably the Middle American representatives of the spider woman, or the grandmother spider, or the old spider, who play

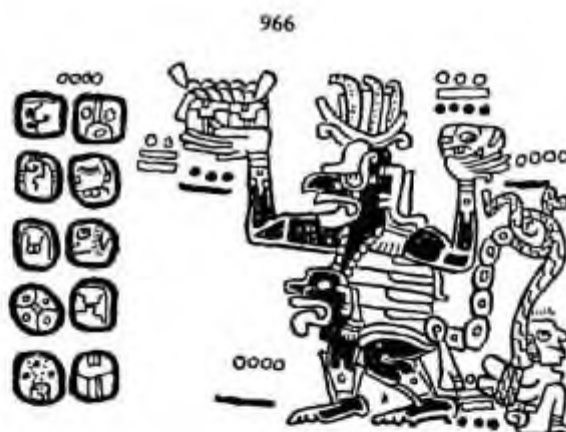
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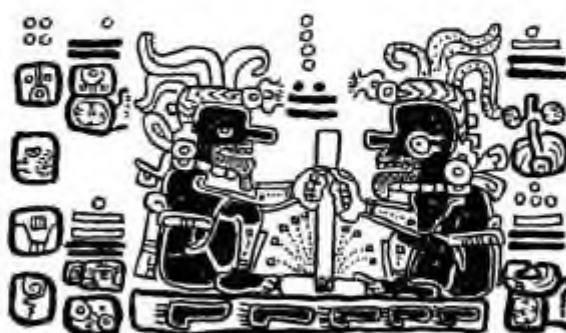
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Fig. 963. The scorpion in a series of day signs. Fejérváry Mayer 5.

Fig. 964. The scorpion, symbol of fire, descending from the sky. Nuttall 22.

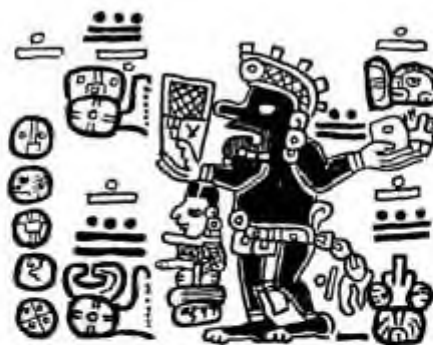
Fig. 965. The scorpion, lord of the fifth direction. Cortés 7a.

Fig. 966. The black god with scorpion tail. Tro 34\*a.

Fig. 967. The black god with large under lip. Tro 6a.



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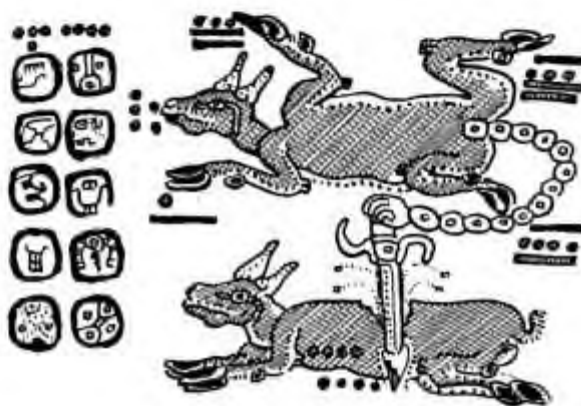


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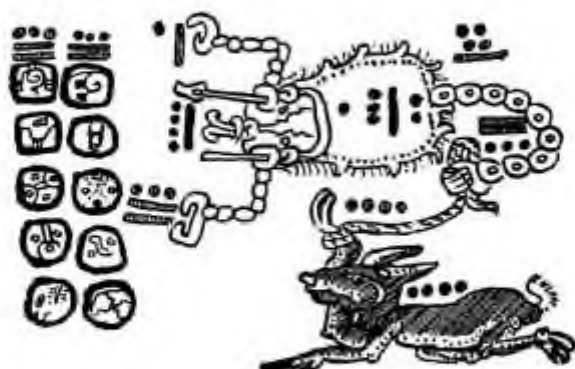


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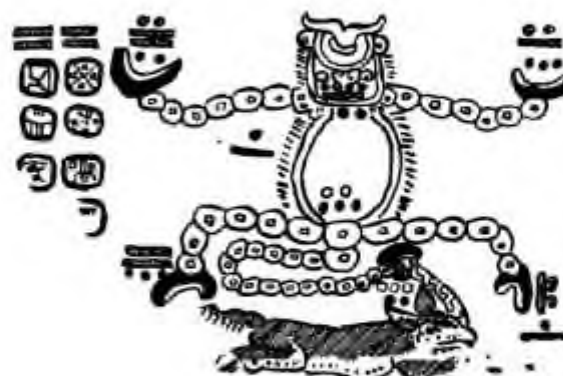
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Fig. 968. Tro 31\*a.

Fig. 969. Tro 30\*a.

Fig. 970. The old goddess with scorpion tail. Cortés 11a.

Fig. 971. The old red goddess. Dresden 39b. Fig. 972. Tro 18b. Figs. 973-974. The scorpion, the captor. Tro 13b, 9c.

so important a part in the North American myths and legends.

An odd insect, Fig. 954, occurs in the Magliahecchiano as the chief mark on a shoulder covering, the pattern also containing eyes (symbols of stars or the night sky). This garment is explained by the interpreters as "*tilmatl* ó manta *mitlanfecutl* ó el señor de los muertos," i.e. as shoulder covering, pattern of the death god. /742/ Almost exactly the same insect is pictured in the Codex Borbonicus with a large number of the tutelary divinities of the different Tonalamatl sections (Fig. 955). It is true this insect does not display the characteristic blending of the head with the thorax and the division into two portions resulting therefrom, but it has eight legs as does a spider.

And since it occurs in the Borbonicus with night (moon) and star deities-Mictlantecutli, Tepeyollotli, Chalchiuhtotolin, Tlalteotl, Xochiquetzal, Itzpapalotl. Tlauizcalpantecutli-since further it is related of the god descending from the sky that he is letting himself down from the sky by a spider's web, I have always assumed that this insect (Figs. 954, 955) is intended to represent a spider, and so much the more since the moon goddess and the "old spider" also form a pair in the North American legends.

Head and tail end, it is true, are very like those of the insect of the Tro, which /743/ is coming down from above and which I have previously discussed. But the latter insect had wings and is drawn floating down from above, /744/ while the insect of Figs. 954, 955, is wingless and has eight legs and is always drawn erect. The idea of course is the same as with the Tro insect. This animal, which I call a "spider," is the *tzitzimil*, the creature at home in the sky, descending from the sky, appearing suddenly and unexpectedly, and connected in thought with the spirits of the deceased.

The scolopendra in Mexican is *petlacolcoatl* or *cent-zomnnye*; in Zapotec, *pela pecee*.

The most effective picture of a scolopendra is that on plate XI of Hermann Strebel's work on animal ornamentation (Fig. 956), /745/ that is taken from pottery from the Cerro Montoso group, which is inclined to follow the culture of the highlands. Yet here too the long lash-shaped antennae are drawn quite unnaturally curled at the ends and /746/ the jaws containing the poisonous liquid, and working like a pair of tongs, are replaced by two organs similar to crabs' claws.

In Mexican manuscripts we find the scolopendra with the goddess Xochiquetzal (Figs. 958, 959), and intertwined peculiarly with a serpent (Fig. 957a) in the Tonalamatl of the Borbonicus with the goddess Tlalteotl

-a figure that is replaced at the corresponding place of the Aubin Tonalamatl /747/ by two worm-like bodies, of which one has a Quetzalcoatl head (Fig. 957b).

I know of no scolopendra in Maya manuscripts.

The scorpion in Mexican is *colotl*, "crooked," and in Zapotec, *nioxóbi*, *nio-cóhue*, expressions containing the same idea, and in the Mayan of Guatemala, *zínah*, and of Yucatan, *zínán*.

The scorpion, the sting of which occasions a burning smart, is the animal of the tire god and is therefore placed with the tire god (see Fig. 960a-c). For the same reason it stands in the series of 25 pairs of gods with the pair denoting the seventh hour of the night, or midnight (Fig. 961). For midnight was the hour when the priests arise *from* their beds and marched in a procession to the sacred pool, there to pierce tongue, ears, and muscles and to offer the blood to the gods.

Thus we see the scorpion pictured in inscriptions directly as the picture of castigation above the grass balls in which were stuck the agave leaf points smeared with blood (Fig. 962). On the reverse /748/ of the Codices Bologna and Fejérváry Mayer page 5 (sections representing a kind of diviner's codex), a series of animals composes a sort of five-membered column of day signs (see above, Fig. 931), among which the scorpion, as a mysterious, dangerous animal, occurs (see Fig. 963). Descending from above and painted in the colors of tire, red and yellow, it also occurs in the Nuttall with an agave plant and a temple (Fig. 964).

In all these pictures the scorpion is represented plainly enough with crooked tail ending in a poisonous stinger and large pair of legs developed into crabs' claws. The preferred color is red, but yellow is also used, or, as in Fig. 964, it is intentionally painted red and yellow. In the Codex Borgia the body is represented in the colors and marking of the *chalchiuhtl* glyph ("green jewel"). A peculiarity of this codex /749/ is that both the tail end formed by the poison stinger and the claw-like ends of the front pair of legs in shape and color resemble the element *cuitlatl*. "excrement," which in this manuscript and elsewhere is a symbol of tire. In Fig. 962 the poison stinger is drawn as a stone knife.

The scorpions of the Maya manuscripts are far more conventionalized. Here the animal has two arms /750/ (Figs. 973, 975) or four arms with claws (Figs. 965, 974); the end of the tail containing the poison gland has the form of a hand in several pictures (Figs. 966, 972, 974). Very effective is Fig. 965, from Codex Cortés 7a, where the scorpion, surrounding the water with its forearms, opposite the fifth cardinal point, parallels the four bags of water formed by serpents and corresponding to

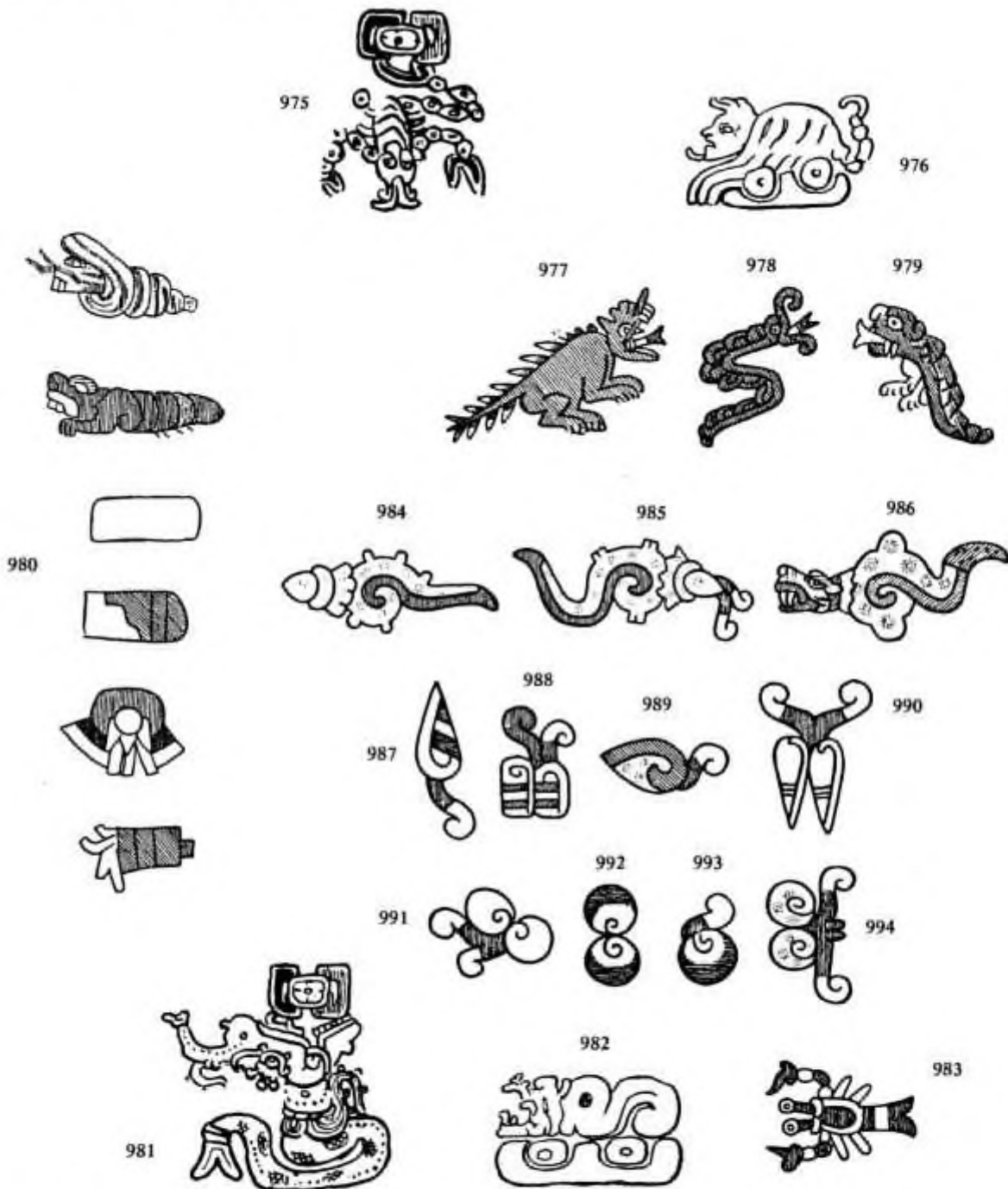


Fig. 975. The constellation of scorpion. Pérez 24b.

Fig. 976. The constellation of scorpion in conjunction with Venus. Casa de las Monjas, Chichen Itza.

Fig. 977. *Coccus axin* (from the glyph for Oxichan). Mendoza 51, 8.

Figs. 978-979. Glyph of Ocuillan. Mendoza 36.1, 10.8.

Fig. 980. Bologna 25.

Fig. 981. Constellation of the water serpent? (of the worm?). Pérez 23b.

Fig. 982. Constellation of the worm in conjunction with Venus. Casa de las Monjas, Chichen Itza.

Fig. 983. The crab (in water). Nuttall 16.

Figs. 984-985. Nuttall 80, 75. Fig. 986. Vaticanus B 66.

Figs. 987-994. Nuttall 75, 16, 36, 49, 74, 75, 49, 36.





Fig. 995a. Priest blowing a shell trumpet. Magliabecchiano 35. b. Shell-horn blower. Pottery figure, Valle de México, Uhde Collection.

Fig. 996a. Tecciztecatl, the moon god, with a snail shell at the back of his neck, Telleriano-Remensis, f. 13. b. Tecciztecatl,

the moon god, and the snail shell *tecciztli*. Borbonicus 6. Fig. 997, Glyph for zero.

Fig. 998, Dresden 38b.

Fig. 999. The god in the spiral shell and his homologue the turtle. a. Dresden 41b. b. Cortés 13a.

the four cardinal points. Here at the same time the scorpion is represented as a skeleton with exposed ribs, and the zigzag lines of the *e' tznab* sign, the flint knife, upon its forehead.

The same zigzag lines on the forehead are also shown in Fig. 973. In the latter picture, as in Fig. 974, the scorpion is represented as a deer hunter. Here it is the symbol of the black god, whose name is Ek chuah and who occurs in two different forms, in one with a curved nose and large eye brow (Fig. 966), and in the other without the eye brow, with straight projecting nose and large red under lip (Figs. 967-969), and in both cases with a scorpion's tail.

The symbol of this god of course is also the deer with scorpion's tail, represented on Codex Tro 18b as a deer killer (Fig. 972). The old goddess, who appears on Cortés 11a in similar fashion with a scorpion's tail (Fig. 970), is obviously the consort of the fire god, who we also have to recognize as the black god. Her homologue we see on Dresden page 39b, designated glyphically as the red goddess pouring water on the ground (Fig. 971).

#### 44. Wingless Insects, Larvae, and Worms<sup>6</sup>

In the above heading I have grouped three very different classes, because speech and popular perception do not discriminate among them-but of course only certain insects and not all wingless ones are included.

The worm in Mexican is *ocuilin*, and the following were distinguished according to the manner of their occurrence: wood worm (*quauh-ocuilin*), worm living in flowers (*xochi-ocuilin*), that living on grass blades and weeds 1751/ (*quilocuilin*, *caca-ocuilin*), that living in ears of maize (*cin-ocuilin*), the edible worm of the maguey plant (*me-ocuilin*), the maggot living in flesh (*nacaocuilin*), that living in ordure (*nex-ocuilin*), and the worm that was supposed to occasion toothache (*tlanocuilin*). The hairy caterpillar alone had the special names of *auatl*, *xochau-atl*, *auatecolotl*.

Among the Zapotecs the name *pela*, *pella*, with which snakes and fish and flesh in general are designated, is also applied to worms; the particular species is then distinguished by additions corresponding to the Mexican method mentioned above. Maggots that appear in flesh are *péla-pizoga*, those in the ears of maize, *péa-toga*, *péa-tée*, field maggots, grubs, etc., *péla-pichána*, and the hairy caterpillars, *péla xi-quite copijcha* ("diurnal butterfly worm").

In Mayan worm is *nok*, *nokol*, *xnokol*, *xnoklil*.

In the manuscripts the resemblance of worms to snakes is more or less clear (see Figs. 978, 979). It seems not impossible, therefore, that the peculiar form of the water snake (Fig. 981) that occurs in the Codex

Perez in the series of animal pictures drawn with jaws opening /752/ toward a sun glyph and that are supposed to be constellations, has its homologue in the worm of Fig. 982. The latter belongs to the series of constellations pictured in conjunction with Venus on the facade of the east wing of the Casa de las Monjas, Chichen Itza.

With these snake-like worms is also grouped the peculiar creature in Fig. 977, which I have drawn here, in the first place, because this is not really intended for a worm but a cochineal louse, *Coccus axin*. This, ground into powder, is used as a varnish-like coating for gourd bowls, wooden plates, etc.

#### 45. Crabs and Other Crustaceous Animals

Large long-tailed lobsters are *tecucitli* in Mexican; locust crab or shrimp, *chacalli*, *chacalin*, or *achacalin*, the smaller species, *acocilin*, *acuicilin*. Zapotecs called crabs *pée*, *mani-pée*; the land crab, *pée-toba*. Locust crabs are *mani-coxóno*, the smaller species *pitéza* and *péla-pihue*. In Guatemalan Mayan crab is *tap*, shrimps, *ch'om*; in Yucatec the first is *ix-baan*, *ix-bau*, *ixbab*, and the locust crab or shrimp is *xex-cay*.

Figure 983, an excellent picture of a crab, is from the Codex Nuttall, page 116. It is drawn in water with other aquatic animals. There are not enough pairs of legs, but the shape of the tail, claws, and especially the pedunculated crab's eyes are tolerably well reproduced.

The large conch, the shell of which is employed as a trumpet, in Mexican is *tecciztli*, the long univalves (families of *Conus*, *Oliva*, etc.), *cuechtli*, the smaller conch, *cilin*. The sea shell is *eptli*, the reddish scallops of the Pacific Ocean are *tapachtli*, and fresh-water mussels, *atzcalli*.

In Zapotec, the large conches used for trumpets were *páa-táo*, *páa-nica-táo*, *páa-táo-tocuécheni*, *páa-nicatáopáni*; common marine univalves were *pitóhua*, small snails, *quéco*, mussels were *xicáa-péla*.

In Yucatan large marine univalves were called *hub*, land- and fresh-water snails, *ul*,<sup>7</sup> *uul acal ché*.

In Mexican manuscripts and on pottery, where blowers of shell trumpets are represented, the conch is drawn more or less realistically (Fig. 995a, b). Original conch shells, which I obtained from caves in the Mixteca, were identified by Prof. von Martens<sup>8</sup> as *Fasciolaria gigantea* from the Caribbean Sea. The same conch shell (*tecciztli*) also occurs where the univalve is used as symbol and insignia of the moon god, who is therefore called *Tecciztecatl* after it (Figs. 996a, b).

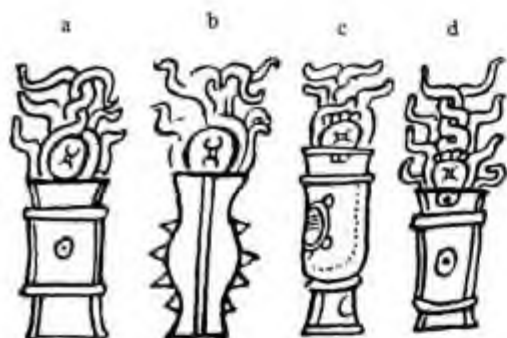
Where the snail is pictured simply as a water animal 17 54/ these large conch shells are sometimes drawn (Figs. 984-986) and sometimes those of the shape of a *Conus* or an *Oliva* (Figs. 987-990) and again those of a



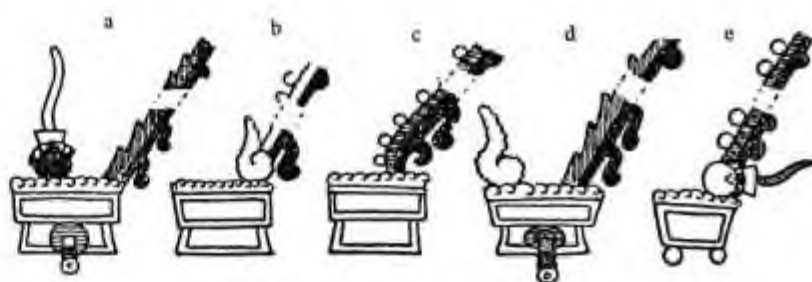
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Fig. 1000. Incised design on a Chamá vase. Erwin P. Diesel-dorff Collection, Royal Museum of Ethnology, Berlin.

Fig. 1001. Copal offering, and burning of copal. a, b. Tro 31\*c, 30\*c. c-f. 32c, 32c, 21b, 25\*a. g-k. 8\*c, 7\*b, 7\*b, 5\*b. l-r. 2\*c, 3\*b, 5\*b, 6\*b, 6\*b, 6\*b, 6\*b.

Fig. 1002a-d. Burning of copal or other incense. Dresden 25-28b.

Fig. 1003a-e. Incense vessels, with copal and rubber, before the five Auiateteo. Borgia 47, 48.

Fig. 1004a-d. Incense vessels, before the divinities of the four years. Borgia 72.

Fig. 1005. Fire vessel, before Chantico, the goddess of fire. Borgia 63.



round or disk shape (Figs. 991-994). The animal in the shell is always indicated in a very conventionalized manner.

In the Maya manuscripts the spiral shell serves as a numeral sign. As Forstemann first pointed out, it is the glyph for zero (Fig. 997). In contrast to the actual numerals, it is in red. The commonest form is that of an Oliva. /755/ occasionally, however, a spiral shell is also drawn.

The moon god represented with a spiral shell at the neck in the Mexican manuscripts (Fig. 996) has, corresponding to him in the Maya manuscripts, an old god, the chief element of whose glyph is the *cauac* sign or the picture of a turtle shell (pp. 284, 286 above, Figs. 732741). I stated that this deity is also pictured with a spiral shell on his back, and that this also appears in his glyph in place of the turtle shell, but that this god sitting in the /756/ spiral shell and designated glyphically by it also occurs in homologous series as equivalent to the turtle and replacing that animal (see Fig. 999a, b). The same divinity should perhaps also be recognized in Fig. 998, although here the glyph is different. The god is drawn there in water and emerging from the spiral shell. In these pictures of the god the shell is always a knobby spiral.

Stempell sees "snails with bound shells" in Fig. 1001a, b, which are held in the hands of the old god and the maize god in the Codex Tro. As a matter of fact this is a /757/ figure that in the Tro is always drawn in the center of the flame (Fig. 1001c-r), where the subject is offering copal and other incense. Even the shape of the incense vessel on which the incense is burned is so char-

acteristic, corresponding in essential elements, with those of the Mexican manuscripts (Figs. 1003-1005), that not the slightest doubt can prevail in this respect.

In the Codex Dresden this spiral-bound design in the center of the flame is replaced by a symbol resembling *ik*, "wind," but yet different from it, and in order to give it a name I have called it *kak*, "fire" (Fig. 1002a-d).

Again, Stempell and his predecessors, Schellhas and Brinton, err gravely in explaining the heads of Ah bolon tz'acab serpents as snails, worn as a head ornament by Itzamná, the death god, and the moon god. They were guided by the pedunculated eyes that issue above the brow of the serpent eye and also appear once on its snout (above, p. 296, Fig. 833a-m). The pedunculated eyes are symbols of stars, as is proved by Mexican evidence. For the rest, I refer to the illustrations and explanations given in the section on serpents.

1. Sahagún, Bk. 3, App. Ch. 3.

2. In the Zamora district.-J.E.S.T.

3. *Códice Mixteco: Lienzo de Zacatepec*. México: Oficina Tipográfica de la Secretaría de Fomento, 1912. (Manuel Martínez Gracida (1847-1923) was a Mexican geographer.-F.E.C.)

4. *Annals of the Cakchiquels*, Brinton, Ed., §12.

5. *Titulo de los Señores de Totonicapán*, Ch. 2, pages 120, 121.

6. Strangely, Seler does not include the *macacoatl* as a worm; Molina described both a large snake and a "gusano gordo con cuernos."-F.E.C.

7. Not *ut*, as Stempell states.

8. Eduard Karl von Martens (1831-1904) was a marine biologist.-F.E.C.

## CONCLUSION

In its elaboration this treatise has grown /758/ to three or four times the length I originally had in mind. The number of types demanding consideration is by no means slight. And to write clearly, concerning the actual significance of the different forms, digressions were unavoidable.

From the material I have cited it will be seen that a mere zoological discussion for the determination of what is actually under consideration does not suffice in very many instances; archaeological-historical investigation must accompany and control the empirical study of form, and contrariwise. Only then can assured results be hoped for. As to how far I have succeeded in this the reader may judge.

I should like to add, however, that the above investigations do not supply a complete picture. The material of and development of art forms.

the picture writings, sculptures, paintings on pottery, etc., I have been able to cite only in a very limited measure, and also the wealth of forms in the glyphs, in long rows covering the walls of Maya temples and palaces, to only a very limited extent. Not until this material is better understood and fully considered can we gain a true conception of the number and abundance of the animal forms that occupied the imagination of these tribes, with which they felt themselves connected or to which they desired to form a relationship, and these determinations will not be without significance for investigations of a more general nature, for mythological-scientific religious study as well as for those directed to the origin

Article IV-5 of the *Abhandlungen*, "Die Tierbilder der mexikanischen und der Maya-Handschriften," pp. 453-758. *Zeitschrift für Ethnologie*, Parts 2, 3, 4, 6 (1909); Parts 1, 2 (1910). This was the only article taken from *Abhandlungen* Vol. IV: "Only the following paper of this volume has been translated in the Bowditch Edition, but it forms only a little less than half of the whole volume. "There were some problems.

The German editor had neglected to re place the original cross references to *Zeitschrift* pages and plate numbers with those of the *Abhandlungen*; this oversight apparently gave J. Eric S. Thompson an opportunity to make a few additional modifications:

1. Removing the incorrect cross references (most of which have been correctly restored in the present edition);
2. Frequently replacing Seler's expression, "Dresden manuscript," with the newer term, "Dresden Codex";
3. Frequently replacing Seler's phrase, "Maya of Yucatan, " with the word "Yucatecs";
4. Frequently removing Seler's term, "Madrid Maya Manuscript, " which he often included in references to the Tro and Cortesian codices;
5. Shortening Seler 's usual word, "hieroglyph" to "glyph. " In the *Abhandlungen* figure numbers with asterisks occasionally indicate the addition of illustrations without altering the numbering sequence, necessitating the continuation of their use here. However, some figures were apparently discarded, and the following figure numbers are consequently not used: 474, 475, 550, 687, 709-715.

In the present edition the word "codex" in the captions has been omitted throughout before the codex named as a source