A COMPARATIVE ANALYSIS OF MAYA HIEROGLYPHS MULUC AND MOL 1

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PUBLISHED material on the Maya hieroglyphs indicates that there has been some confusion in differentiating glyhp Muluc from glyph Mol. This is perhaps due to the fact that the Maya scribes utilized the Muluc symbol for a part of the Mol hieroglyph. While the employment of the Muluc element in the Mol symbol appears to have been intended by the Maya scribes to express the close esoteric association of these two glyphs, it produced the difficulties of identification encountered by modern researchers. Exploration of this problem has developed some clarifying factors which should be given consideration.

As is known, hieroglyph Muluc is composed of a small circlet, centrally infixed within a frame, as shown in Fig. 1, No. 1. The shape of the frame varies from oval, as in No. 1, to a somewhat rectangular form, as in No. 2. Sometimes the symbol bears a partial or complete double frame as delineated in Nos. 3 and 4. When Muluc is combined with other glyphic elements, its frame is commonly circular, as shown in Nos. 5. 6, 7 and 8. This circular form of Muluc, depicted in No. 8. is commonly referred to as the Muluc disc. Beyer 2 has called Muluc "a simple perforated disc". Since the Maya scribes so frequently employed the disc, shown in No. 8, when combining the Muluc "idea" with other glyphic elements, there seems good reason to believe that the disc may represent the basic form of hieroglyph Muluc.

Maya hieroglyph Mol is composed of a disc (the Muluc

Hieroglyphs." American Anthropology, Vol. 35, No. 4, p. 682.

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BEYER, HERMANN. 1933. "A Discussion of the Gates Classification of Maya

element) to which has been added two dots or circlets superfixed on the disc's upper perimeter, as shown in No. 9. This form of the Mol symbol occurs in Dresden Codex as an infix in some glyphic pictographs of human hands, such as the Manik hand depicted in No. 10, and is also incribed in the right lower corner of many head glyphs, as in No. 11. It similarly occurs in the "beak" of what was perhaps intended as the representation of a bird's head, as delineated in No. 12. This Mol symbol is often enclosed in a rectangular frame, as in No. 13, and sometimes in a circular frame, as shown in No. 14. Occasionally it occurs in a eliptical frame, like that in No. 29, where it can be seen that the two superfixed dots or circlets have been inscribed by means of dividing a semicircle with a vertical line. This method of depicting Mol's two dots or circlets appears to be a device of the scribe, rather than any intended modification of the symbol, for it is much easier to divide a semicircle with a vertical line, than to draw two circlets.

The framed forms of the Mol hieroglyph are often enclosed within a circle of dots or circlets, as delineated in Nos. 14, 15, and 16, and other modified Mol forms such as shown in Nos. 17 and 18. Some researchers have believed these dots or circlets to represent raindrops. However, in an earlier report ³ material has been presented to show that such a "halo" of dots or circlets may have been intended to express the idea of a circle of light, radiating from the enclosed symbol.

Perhaps as a result of the Maya scribe's rapid delineation of glyph Mol, the disc element is often distorted, and may be depicted as a semicircle, like that in No. 17, or merely as a crossline with a slight upward arch, as in No. 19. Occasionally the disc becomes a part of the frame, like that in No. 21. At times, the infixed central circlet of the disc element of Mol is double lined, as depicted in Nos. 17, 26, and 27.

A common modification for glyph Mol, is the addition of an infixed semicircle that encloses the two-dot superfix on the disc, as delineated in No. 18. As a part of this form of modification, the space intervening between the two dots and their enclosing semicircle, is often filled with black pigment, as shown in Nos. 19, 20 and 25. It can be seen that, in Nos. 19

³ Thurber, Floyd and Valerie Thurber. 1959. "Itzamna Cocahmut, the Possible 'Spark-bird' God of the Maya." Southwestern Journal of Anthropology, Vol. 15, No. 2, p. 186. University of New Mexico.

and 25, the two dots were inscribed by the method of dividing a semicircle with a vertical line, as mentioned.

Hieroglyph Mol and its modifications are often turned on

their sides as presented in Nos. 21-28.

The confusion in differentiating glyph Muluc from glyph Mol, appears to have developed from the fact that Mol incorporates a Muluc disc in its structure, as can be seen by a comparison of Nos. 8 and 9. Beyer 4 has presented his Fig. 182, as shown here in No. 29. In his Fig. 182, a modified Yax symbol is prefixed with another glyph. Of this group, Beyer states, "...the day sign Muluc appears both as a simple perforated disc and in the form of the prefix of Fig. 182..." He thus considers the prefix symbol to be a form of Muluc. However, since his prefix glyph bears only the elements of a Mol form, it hardly qualifies as a Muluc symbol. Compare his prefix in No. 29, with the Mol forms of Nos. 15 and 21. The similarity in the Muluc and Mol symbols may also account for such Mol forms as Nos. 22, 23 and 24, being found among representations of glyphs identified as Muluc.

The sign for jade is associated with glyphs Muluc and Mol, and Thompson identifies it as follows, "... the sign for jade, which as already noted is either a circle set in a largar disc or the same with the addition of two beads on the perimeter. As such it is the main element of the glyphs for Muluc and Mol..." 5 On this basis, the sign for jade would equate with the Muluc shown in No. 8, which conforms to "a circle set in a larger disc", and to the Mol depicted in No. 9, which delineates "the same with the addition of two beads on the perimeter". This association of the jade sign with both Muluc and Mol suggests a close esoteric relationship between these two hieroglyphic symbols even though one is a day sign and the

other is a month glyph.

In the present advanced stage of Maya hieroglyphic research, mythico-theological factors are receiving much greater consideration in the decipherment of the symbols. Thompson reports, "Mysticism, religion, and poetry completely dominate the hieroglyphic writing... Clearly, our duty is to seek more of those mythological allusions." The ancient Maya concept

⁴ Beyer, Herman. 1933. Ob. cit., p. 682.
⁵ Thompson, J. E. S. 1950. Maya Hieroglyphic Writing: Introduction. Carnegie Institution of Washington, Publication No. 589, p. 144.
⁶ Thompson, J. E. S. 1950. Ob. cit., pp. 292, 295.

of the good or bad influences brought to bear in the daily affairs of men's lives by the intervention of their deities, is well known. Thompson states, "The twenty days which formed the Maya 'month' were regarded as gods and were the recipients of prayers..." Maya divination appears to have been based upon the beneficent and malignant attributes exercised by the gods who ruled these days, and the other related deities of their pantheon. The Tonalamatls of the codices Dresden and Madrid may perhaps be formulas for such divination. Thompson notes "...the many 260-days almanacs, divided into compartments, which occupy the greater part of the Dresden and Madrid codices have been recognized as divinatory from Förstemann (1895) to Zimmermann (1956)." The mythicotheological values of hieroglyphs Muluc and Mol are pertinent to the present analysis.

Thompson 9 associates the day Muluc with the Xoc fish and the jaguar, and writes, "The symbolic forms of the day sign have been identified by Beyer (1926) as the signs for jade. Bever's case is a strong one, and there seems no reason to doubt its validity. As he notes, jade was the symbol for water; jade-water was a ritualistic name for rain on the Mexican plateau, and the goddess of water in the same area was 'she with the jade skirt'. It is interesting to note that the jade sign also forms a part of the glyph of the month Mol. Barrera Vásquez connects Muluc with the Tzental root mul, 'sink beneath

the water'."

The foregoing mythico-theological information suggests that glyph Muluc was one of the symbols associated with the goddess of water, since she was conceived to be the jade-skirted one, as mentioned above. The obvious characteristic of jade is its green color, and for this it seems to have been highly prized by the ancient Maya. This leads to the possibility that the ritualistic jade-water-rain, noted above, may perhaps have been a jade-green rain. Consider, as stated by Roys 10 "Rain is green in the Maya picture manuscripts." On this basis, there seems

⁷ Thompson, J. E. S. 1954. The Rise and Fall of Maya Civilization. Univ. of Oklahoma Press., p. 232.

S Thompson, J. E. S. 1959. "Systems of Hieroglyphic Writing in Middle America and Methods of Deciphering them." American Antiquity, Vol. XXIV, No. 4, p. 357.

THOMPSON, J. E. S. 1950. Ob. cit., p. 78.
 ROYS, RALPH L. 1933. The Book of Chilam Balam of Chumayel. Carnegie Institution of Washington, Publication No. 438, note 4, p. 77.

some reason to believe that the tentative jade-water-green-rain of Mexican plateau ritual may perhaps equate with the green rain of the Maya manuscripts. Similarly, the tentative goddess of water related to Muluc, may be associated with the tentative

green-jade-water-rain of the Maya manuscripts.

As noted, Thompson has associated the day Muluc with the Xoc fish. Other mythico-teological material of the Maya culture area relates, "...the First of all the Fish dwells in the sky." 11 This suggests the ancient Maya concept of a deity in the form of a fish. Caso 12 has reported a folktale in which a gilded fish was said to have informed him of the location of the treasure in a tomb. A fish that could impart information of this nature would certainly qualify as a supernatural creature. There is some reason to believe that there may have been a goddess of fish in the Maya pantheon, for, according to Wisdom 13 among the spirit apparitions of the Chorti Indians of Guatemala, the female Siguanaba was the protectress of fish. The mythico-theological evidence indicates that there may have been a semi-fish goddess associated with the Chicchans. Thompson writes, "There are four principal Chicchans who live in the sky at the four points of the compass. They send the rains..." 14 Wisdom 15 supplies the additional information that the female Chicchan is said to be a fish in the lower body and a woman in the upper. She was usually called, "Chicchan of the great water". On this basis, she could be a "fish" who "lives in the sky". It is also perhaps possible that the phrase "great water" may relate to the ritualistic green-rain. From the information presented in the foregoing material, it appears reasonably possible that the tentative Muluc water goddess was also the fish goddess, and a female member of the group known as Chicchans, who are associated with rain.

There is some reason to believe that the tentative Muluc water goddess may be associated with the virgin moon goddess. Thompson writes, "... Ixchel, also called Zac Ixchel, 'white

¹¹ ALEXANDER, HARTLEY BURR. 1920. "Mythology of all Races." Latin-America,

Vol. XI, p. 223. University Press. Cambridge.

12 Caso, Alfonso. 1932. "Monte Alban, Richest Archeological Find in America." National Geographic Magazine, Vol. LXII, p. 496.

13 Wisdom, Charles. 1940. The Chorti Indians of Guatemala. Univ. of Chi-

cago Publications in Anthropogy. Ethnological Series., р. 407.

14 Тномрзон, J. E. S. 1950. Ob. cit., р. 75.

¹⁵ WISDOM, CHARLES. 1940. Ob. cit., pp. 393 and 393 note 8.

Ixchel', the moon goddess and the wife of the sun god".16 The mythico-theological evidence of the Maya culture area identifies both a virgin moon goddess, and an Old Woman moon goddess. "... Seler many years ago assumed the existence of a youthful and an aged moon goddess with, I think, complete justification."17 While the "zac" of Zac Ixchel can mean "white", it also bears the meaning "pure". Thompson 18 states, "...zac can mean pure..." There seems some reason to believe the White Ixchel was the virgin form of the moon goddess, since she may have been considered to be "pure" Ixchel. Seler writes, "... Zac Zuhuy 'the white virgin'." 19 As is known, White Ixchel is hieroglyphically written by combining the Zac glyph for "white", as a prefix, with the head glyph of the goddess, as shown in No. 11. It can be seen that the Zac symbol has for its lower element, a Muluc disc, which may perhaps be intended to associate White Ixchel with the tentative Muluc water goddess, and by extension, with the goddess of fish.

Mythico-theological references to hieroglyph Mol are similarly pertinent. Thompson reports, "The word presumably derives from the collecting duties of this position since mol means to collect... As the central element of Mol corresponds to that of the day sign Muluc, and symbolized water or jade, it seems highly probable that the name of the month refers to the gathering of rain, that is to say, the gathering of clouds, an interpretation first proposed, I believe, by Spinden (1924, p. 128)." 20 Recall and consider, Muluc's tentative association with the Chi-

cchans who bring rain.

The Mol idea of "collecting" appears to have additional meaning. Landa reports a ceremony in which, "For this feast they collected all the boys and girls of the town, and instead of smearings and ceremonies, they struck each of them on the joints of the backs of the hands, nine slight blows; and to the little girls, the blows were given by an old woman, clothed in a dress of feathers, who brought them there, and on this account

¹⁶ Thompson, J. E. S. 1958. "Symbols, Glyphs and Divinatory Almanacs for Diseases in the Maya Dresden and Madrid Codices." American Antiquity, Vol. 23,

No. 3, p. 297.

17 Thompson, J. E. S. 1950. Ob. cit., p. 83.

18 Thompson, J. E. S. 1950. Ob. cit., p. 252.

19 Seler, Eduar. 1904. "Mexican and Central American Antiquities, Calendar, Systems and History." Translated by Charles P. Bowditch. Smithsonian Institution, Bulletin 28, p. 50.

20 Thompson, J. E. S. 1950. Ob. cit., p. 110.

they called her Ix Mol, that is to say, the conductress." 21 Based upon the foregoing information, it seems highly probable that the deity associated with hieroglyph Mol, was female. Thompson notes, "A common name for the jaguar in Yucatan is Chac Mol..." 22 Recall that the jaguar is also associated with the day Muluc, another close esoteric relationship between glyphs Muluc and Mol. In this case, the jaguar in question would be a female jaguar form. Consider that the Chicchans associated with the tentative Muluc fish goddess, occupy the four cardinal points of the sky and thus may equate with the four Chacs of Maya mythology. On this basis, the female "Chicchan of the great

water" could logically be called Chac Mol.

Landa's information that the old woman, Ix Mol, was clothed in a dress of feathers, suggests that she may be related to the old moon goddess associated with the Maya day-sign Men, shown in No. 30. Of the day Men, Thompson writes, "The fifteenth day of the Maya list corresponds to Quauhtli, 'eagle', of the Mexican plateau, and the Zapotec Naa, 'mother' ... Seler (1902-23, Vol. 2, p. 1,000) considers Ilamatecutli to be the old moon goddess, an identification which I believe to be correct... Ilamatecutli-Ciuacoatl is a goddess of the earth and of the maize and a patroness of weaving... In the song of Ciuacoatl she is called 'the eagle', 'the eagle woman', and her throne is said to have been of eagle feathers." 23 On this basis, Landa's "Old Woman" dressed in feathers, and called Ix Mol, may also equate with "the eagle woman" of day-sign Men, a form which she may have taken for ritual purposes. The mythico-theological evidence of the Maya cultural area indicates that for certain ritual elements, women impersonated the bird-forms of special deities. Folklore relates, "...he saw the women at break of day, turn into chachalacas, quails, wild pigeons, turtle doves and other birds..." 24 Consider the goddesses known on the Mexican plateau as "...the Ciuateteo, the ghostly women in eagle's form, who swooped down at certain seasons..." 25 In Dresden Codex

²¹ Tozzer, A. M. 1941. Landa's Relación de las Cosas de Yucatán. A translation edited with notes. Papers of the Peabody Museum, Vol. 18, p. 159. Harvard

University.

22 Thompson, J. E. S. 1951. Aquatic Symbols common to various Centers of the Classic Period in Meso-America. Proceedings XXIX-th International Congress of Americanists. Univ. of Chicago Press., p. 36.

23 Thompson, J. E. S. 1950. Ob. cit., pp. 82, 83.

24 Redfield, Robert and Alfonso Villa R. 1934. Chan Kom, a Maya Village. Carnegie Institution of Washington, Publication 448, p. 334.

25 Alexander, Hartley Burr. 1920. Ob. cit., p. 77.

p. 69b occurs the picture shown in No. 31. Here, long-nosed Chac (probably Schellhas' god B) has before him, a bird form which could be intended as an eagle. That it may perhaps be the Old Eagle Woman, Ix Mol, seems indicated by the presence of a glyph for the Maya fifteenth day Men, in the text symbols above the picture, and the same Men glyph among the "seat" or "throne" symbols upon wich long-nosed Chac is sitting. Recall that Mol was called Chac Mol, and was possibly a female form of the Chicchan Chacs. The Maya mythico-theological concept being expressed here, may perhaps be that the Old Eagle Woman is receiving her instructions from the head Chac, and is being directed to lead the Ciuateteo, "the ghostly women in eagle's form who swoop down at certain seasons".

The tentative pictograph of what may be a bird's head, shown in No. 12, may have the infixed Mol symbol in its beak to iden-

tify it as deity Mol in eagle woman form.

From the material thus far considered, there seems some reason to believe that Muluc is a symbol associated with the virgin moon goddess White Ixchel, and that glyph Mol is related to the old moon goddess. This may perhaps account for the close esoteric relation of these two symbols, since the young and old moon goddesses would be expected to have many similar attributes. Thus, Muluc may allude to the virgin moon goddess, while Mol may allude to the old moon goddess.

Mythico-theological information suggests that there was a rabbit god and goddess in the Maya cultural area. Sahagun reports, "In Tezcatzonco hath the warrior, the rabbit (god), started life." 26 (Sahagun Book 2, p. 214). On this basis, it would appear that the ritual warrior may have impersonated a rabbit god at certain times. Since all or most male deities of the Maya pantheon have their female counterparts, it seems reasonable to assume that there may have been a female rabbit goddess. In Madrid Codex, p. LXXV, what appears to be a representation of the old moon goddess, sits beneath a tree, and before her is a compound glyph made up of three elements, one above another. The upper of these three symbols appears to have been intended to depict a rabbit, as shown in No. 35. The long ears are at the top; an eye is at the left, and the two horizontal hooked-lines at

²⁶ SAHAGÚN, BERNARDINO DE. 1950-1957. Florentine Codex. General History of the Things of New Spain. Translated with notes by A. J. O. Anderson and C. E. Dibble. Monographs of the School of American Research. Book 2, p. 214.

the right may depict the nose and mouth. This tentative rabbit has the "hook element" in its eye, that is commonly present in the eye of the sun god and other male deities, as shown in No. 36. Thus, there is some reason to believe that this tentative rabbit is male, and perhaps denotes the rabbit concept of the ritual warrior.

Since this possible rabbit is associated with the old moon goddess, it seems reasonable to look for an association of a rabbit with the virgin moon goddess, White Ixchel. It can be seen that the hieroglyph for Zac, shown in No. 5, has what could have been intended for rabbit ears. Here, however, the symbol would depict the rear view of a sitting rabbit. On this basis, the lower element (the Muluc disc), would be the tentative animal's body, above which, the first superfixed semicircle or arc would be the back of its neck, and the next arc would be the back of its head, upon which the long ears are the final superfix. If this assumption is correct, then the Muluc disc, as the lower element, would identify this tentative animal as a female rabbit. Since glyph Zac is employed to convey the "white" and the "pure" concept of White Ixchel, Zac's tentative rabbit connotations may perhaps designate her as the virgin rabbit goddess.

Consider the hieroglyph shown in No. 37. This head glyph has a series of dots extending back from the eye which is a basic element of the day sign Men, as depicted in No. 30. Maya daysign Men has been identified by Thompson ²⁷ as the day of the old moon goddess. The obviously youthful face delineated in the head-glyph of No. 37, suggests that this modified form of glyph Men may perhaps be the virgin moon goddess impersonating the old moon goddess, for ritual purposes. The double superfix above the youthful face of this head glyph, may perhaps have been intended to denote the virgin's tentative rabbit ears. These possible ears are filled with an infix of cross-hatching.

Compare and consider the hieroglyph from Madrid Codex, shown in No. 38. For working purposes it has been turned upright. This head glyph appears to depict a youthful male. It can be seen that the earplug of this tentative male is composed of a Muluc disc to which has been affixed the tentative "rabbit's ear" of No. 37. The fact that this element supplants this male's literal ear, suggests that it is intended to represent an esoteric "ear", perhaps that of the male rabbit god. The incorporated Muluc

²⁷ Thompson, J. E. S. 1950. Ob. cit., p. 84.

disc would be an allusion to the female rabbit deity. If the foregoing assumptions are correct, then it is possible that No. 37 denotes an impersonation of the rabbit goddess by the ritual virgin, and No. 38, designates an impersonation of the rabbit god by the ritual warrior.

From the basic nature of Maya pictographs in the codices, it seems that if a Maya scribe wished to represent the tentative water goddess, together with allusions to her fish and bird associations, he might delineate a youthful female whose anatomical structure would include some evidence of fish and bird attributes. What appears to be such a pictographic delineation occurs in Dresden Codex, as shown in No. 32.

While Beyer 28 has argued that this individual is a male because of the "ex" or loincloth worn, and because of the fact that no particular female mammary development is depicted, it should be noted that Sahagún reports female ritual participants who wear only a breechclout. At the feast for the Old Woman Teteo Innan, also called Toci, it is said of her impersonators, who were females, "They went naked, with a rope for a breechclout".29 It should be noted further that the ancient Maya apear to have traditionally believed that puberty virgins should have little or no breast development. Consider the information that "...little girls are warned not to play with the fruits of the yaxche or Ch'oy trees, as such action will cause their breasts to grow too large". 30 Though not verbally expressed, the idea is implied that their breasts would be "too large" for a virgin. In Dresden Codex some goddesses, particularly those associated with water, are delineated without any mammary development, as shown in Nos. 33 and 34. It appears that, in Maya tradition, only the wives of the Mams were conceived to have fully developed breasts. Thompson 31 reports, "The Chichs are the wives of the Mams, and they are full-breasted... Mam... The word itself means among other things one's mother's father in Yucatan, and as a reciprocal word for grandfather seems to be common to most, if not all, Maya languages."

 ²⁸ Beyer, Hermann. 1933. Ob. cit., p. 676.
 ²⁹ Sahagún, Bernardino de 1950-1957. Ob. cit., Book 1, p. 5.
 ³⁰ Redfield, Robert and Alfonso VIII.a R. 1934. Ob. cit., p. 207.
 ³¹ Thompson, J. E. S. 1930. "Ethnology of the Mayas of Southern and Central British Honduras." Field Museum of Natural History. Anthropological Series, Vol. XVII, No. 2, pp. 153, 417.

Thompson notes 32 that according to Roys, Chich is mother's mother. Thus Chich is grandmother and Mam is grandfather, both of which are mythological and folklore names commonly applied to the old moon goddess and the old sun-god. On this basis, the full-breasted wife of the Mam would be the old

moon goddess.

In Dresden Codex, pages 16 to 23, many of the females depicted are full breasted. While Thompson 33 indicates that some of this section of the codex deals in part with divinely sent disease, there is some reason to believe that it also may perhaps relate to rituals and ceremonies concerning pregnancy and childbirth. Schellhas has spoken of, "...the Dresden Codex; in the first portion of the manuscript, relating in part to pregnancy and childbirth (see pictures of women on p. 16 et seq.)..." 34 Tozzer and Allen 35 state, "The conception, the period of pregnancy, the infant baptism, and possibly, the naming of children are shown in both Tro-Cortesianus (91-95) and the Dresden (13-23)." The full-breasted development depicted on some of the females in this section would be a natural and consistent association with human procreation.

There is some reason to believe that the ancient Maya were greatly concerned with the efficient lactation of the breasts of parturient mothers, for in an era when baby feeding formulas must have been inadequate or possibly unknown, mother's milk or the employment of a wet nurse may have been the deciding factor for survival. Morley 36 has called attention to the high infant mortality rate among the Maya. In the folklore concerning esoteric concepts about babies who die, it is said, "...they are now with the great mother who has many breasts, and enough milk in them all for every child".37 "The great mother" appears to be an allusion to the old moon goddess, the fullbreasted wife of the Mam. "The great mother" may perhaps be

³² THOMPSON, J. E. S. 1939. "The Moon Goddess in Middle America With Notes on Related Deities." Carnegie Institution of Washington, Publication No. 509.

Notes on Related Detties." Carnegie Institution of Washington, Publication No. 509.

Contributions to American Anthropology and History, No. 29, p. 148, note 39.

33 Thompson, J. E. S. 1958. Ob. cit., p. 307.

34 SCHELLHAS, PAUL. 1910. Representations of Deities of the Maya Manuscripts.

Papers of the Peabody Museum, Vol. 4, No. 1, p. 10.

35 Tozzer, A. M., and G. M. Allen. 1910. Animal Figures in the Maya Codices.

Papers of the Peabody Museum, Vol. 4, No. 3, p. 288.

36 Morley, Sylvanus, G. 1946. The Ancient Maya. Stanford University Press.,

p. 23.
37 Oakes, Maud. 1951. "The Two Crosses of Todos Santos." The Bollingen Series, XXVII, p. 48. Belgrave Press. Pantheon Books.

depicted in Madrid Codex, as illustrated in No. 40, where it can be seen that what could be "enough milk for every child" appears to stream forth from her ample lactating breasts. It would seem that the old moon goddess was traditionally admired by the Maya for this attribute of abundant lactation.

Landa commented on the Maya females of his time, stating that the women's hot morning drink produces plenty of milk, and again because their constant grinding of the maize without tying up the breasts causes them to grow large and thus hold a great deal of milk. He also notes that the children suckled much, for the mothers never ceased to give them milk, as long

as they could, until three or four years old.38

Thompson 39 has suggested that the goddess depicted in this section of Dresden Codex may be the moon goddess, stating, "... Pp. 16-23 presumably devoted to affairs of women, since a goddess, probably the moon goddess, patroness of childbirth, weaving, etc., dominates the scenes". There seems additional reason to believe, that if this section of Dresden Codex concerns rituals relating to pregnancy, then it is perhaps possible that the female dominating the scenes may be the ritual virgin moon goddess in her impersonations of the old moon goddess.

The tentative virgin water goddess delineated in No. 32, can be seen to have her "bird-form" and "fish-form" attributes superfixed on the top of her head. The fact that she is crouched in a squatting position seems perhaps to have some esoteric significance, for in a Honduran version of the legend of the Sun, the Moon, and Venus, the "old man's" daughter (who would be the youthful moon goddess) called X't'actani, was found squatting in the thirteenth log. 40 In the pictograph, shown in No. 32, the tentative virgin water goddess is surrounded with green-jade-water-rain. Of this water, Beyer 41 logically states, "On representation of water in the Dresden manuscript are employed darker wavy lines in either vertical or horizontal position, the horizontal ones evidently referring to water in that position (we notice persons in boat depicted on it), while the vertical streaming water is down-pouring, thus most probably rain... Therefore, Fig. 154 also must be regarded as in the rain and not

³⁸ GATES, WILLIAMS, 1937. Landa's Yucatán, 1549-1579. Second Edition. Maya

Society., pp. 53, 55.

39 Thompson, J. E. S. 1950. Ob. cit., p. 24.

40 Thompson, J. E. S. 1930. Ob. cit., p. 129.

41 Beyer, Hermann. 1933. Ob. cit., p. 676, Fig. 154.

in the sea." Beyer's Fig. 154 is shown in No. 32. There seems some reason to believe that the tentative virgin water goddess of No. 32, may perhaps be the ancient Maya concept of her as the "Chicchan of the great water." Recall her association with the female Chicchan of the Chicchan-Chacs. One of the text glyphs appearing above this tentative water goddess in Dresden Codex, shows the symbol for the Old Woman of daysign Men, bearing a superfix of a Chicchan glyph, as shown in No. 39. This combined element may perhaps be intended to express the impersonation of the Old Woman moon goddess by

the Virgin moon goddess, for ritual purposes.

Some writers have considered that the modified Mol symbol with the black infix, as shown in Nos. 19, 20 and 25, represents the Maya glyph for the color black. However there is some reason to believe that this modification may perhaps merely allude to deity Mol as a goddess of the night. Thompson gives the information that, "The symbol for black is used in two ways; to denote that color, if one may so term it, and to represent the night, the interior of the earth, and death." 42 It should be noted, that where the Maya scribe could employ black pigment, there would seem to be no necessity to use a symbol for the color black. A symbol designating the idea "black" would be required only where the pigment itself could not be used. The Maya had a symbol for expressing the idea "black", for Morley 43 presents the glyph for black shown in No. 41, and Thompson 44 presents the symbols for black shown in Nos. 42 and 43. While these three glyphs for black have the Muluc disc as their lower element, none of them bear the two Mol dots on the perimeter, nor do they have any black pigment infix.

This analysis of Maya black, requires consideration of some researchers' concepts that crosshatching was employed by the Maya scribes to designate black, some believing that crosshatching was used for this purpose only in the inscriptions on monuments. However, such a concept may be invalidated by the pictograph in Dresden Codex, in which the scribe employed black pigment and crosshatching contiguously, but as separate glyphic symbols, as shown in No. 44. Here, again, if black pigment can be used as shown, there is no necessity for a

<sup>THOMPSON, J. E. S. 1950. Ob. cit., p. 142.
MORLEY, SYLVANUS G., 1946. Ob. cit., flyleaf.
THOMPSON, J. E. S. 1950. Ob. cit., Fig. 41. Nos. 56, 57.</sup>

glyph symbolizing the idea "black", since the pigment could readily have been extended through the crosshatched area. The foregoing information suggests that Maya hieroglyphic crosshatching has other symbolic significance.

The pictograph from Dresden Codex, shown in No. 33, which may perhaps depict the tentative virgin Muluc water goddess "submerged", may express Vasquez's meaning for mul of Muluc, to "sink beneath the water". In Dresden Codex, Nos. 32, 33 and 34 have the water colored green.

The foregoing analysis indicates that glyph Mol has two dots superfixed on the perimeter of its disc to differentiate it from glyph Muluc.

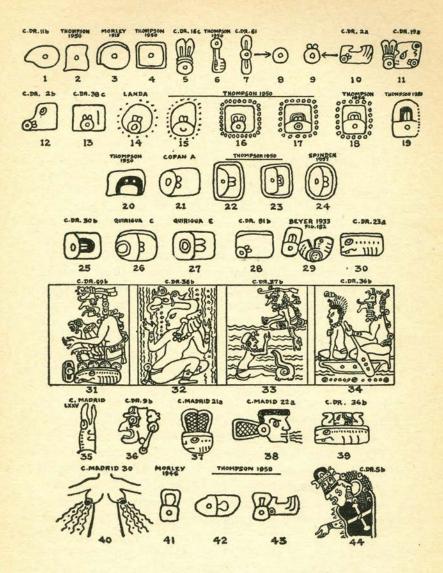


Fig. 1.