

MINIATURE MUSHROOM STONES FROM GUATEMALA

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ABSTRACT

A cache of nine miniature mushroom stones and nine miniature metates with manos from the Verbena cemetery at Kaminaljuyú, Guatemala, date from the Verbena subphase of the Miraflores phase of the Preclassic, 1000–500 B.C. All of the mushroom stones are of Type B with a circular groove around the base of the cap. This type has been found in a Verbena tomb in Mound E-III-3 at the same site. The cache of nine miniatures demonstrates considerable antiquity for the “mushroom-stone cult,” and suggests a possible association with the nine lords of the night and gods of the underworld, as well as the possible existence of a nine-day cycle and nocturnal count in Preclassic times. The association of the miniature mushroom stones with the miniature metates and manos greatly strengthens the possibility that at least in some areas in pre-Columbian Mesoamerica metates were used to grind the sacred hallucinatory mushrooms to prepare them for ceremonial consumption.

DURING the month of January, 1960, while conducting archaeological investigations in Guatemala, I had the privilege of studying the rich, private collection of Karl Heinz Nottebohm, of Guatemala City. Among the many newly-acquired archaeological specimens in his collection was a striking group of ten miniature mushroom stones and two miniature metates with manos (Fig. 1). According to Nottebohm, nine of the mushroom stones, along with nine miniature metates and manos, were taken as a unit from a prehistoric cache in the Verbena cemetery at the archaeological site of Kaminaljuyú, in the outskirts of Guatemala City. The tenth specimen, the tallest in the collection (height, 19 cm., effigy mushroom stone in center of Fig. 1), was also found in the area of the Verbena cemetery some distance from the previously-mentioned cache. Unfortunately, the exact location, within the Verbena cemetery, of the mound which yielded the cache containing the mushroom stones has not been disclosed by the finder.

Similar, but much larger, mushroom stones have been reported with relative frequency from Kaminaljuyú, as well as other areas in the Guatemalan Highlands and Southern Mexico (Kidder, Jennings, and Shook 1946: 104, 142, Figs. 58 c, 160 a-h; Shook and Kidder 1952: 112, Fig. 78 f; Lothrop 1933: 29, Fig. 11; Villacorta and Villacorta 1927: (123–25). My classification of mushroom stones (Borhegyi 1957) is presented in modified form in Figure 2 and Table 1.

These “enigmatic” objects ordinarily average from 28 to 38 cm. in height, although some of the presumably Late Classic (A.D. 600–900) mushroom stones, from the south coast area of Guatemala, are slightly smaller (22–26 cm.; Thompson 1948: 24, Fig. 19 f). The only miniature specimens, heretofore known, consisted of a fragmentary example in the Dieseldorff collection in the Guatemalan National Museum (No. 7567), representing a deer or rabbit (height of fragment, 7 cm.; Fig. 2 14), and one plain mushroom stone in my collection (height, 10.5 cm.). While the provenience of the former specimen is unknown (presumably the Department of Quiché, Guatemala), the plain example in my collection was discovered by one of my students in the Verbena cemetery area of Kaminaljuyú.

The nine miniature mushroom stones in the Nottebohm collection range in height from 14 cm. to 18 cm. Among them, there are four plain (including one tripod), three zoomorphic (one jaguar, two birds), and two anthropomorphic specimens. Although there are only two miniature metates with manos in Figure 1, the original cache contained nine. Apparently, there was one metate and mano for each miniature mushroom stone. Considering the reliability of both the owner and the finder, there is little doubt that the nine specimens, together with the metates and manos, were deposited in the cache in such a way as to constitute an offering.

All of the miniature mushroom stones in the Nottebohm collection have a circular groove around the base of the cap, which places them into my Type B (Fig. 2 12–16). Type B mushroom stones, without exception, are of Early and Late Preclassic date (1000 B.C.–A.D. 200). Shook and Kidder (1952: 112, Fig. 78 f) found a large, tripod, jaguar-effigy mushroom stone (height, 37 cm.) with a similar circular groove around the base of the “mushroom” cap in Tomb I, Mound E-III-3, in the Verbena cemetery area. The contents of Tomb I in Mound E-III-3 were assigned to the Verbena subphase of the Miraflores phase (1000–500 B.C.). Shook and Kidder (1952: 112) state that “there can be no doubt that the making of these curious objects [mushroom stones] began at least as early as the Verbena subphase.” There can also be little doubt



FIG. 1. Miniature mushroom stones, metates, and manos from Kaminaljuyú, Guatemala, in the Nottebohm collection. Except for the effigy mushroom stone in the center of the back row, all were found in a Late Preclassic cache (Verbena subphase of the Miraflores phase, 1000–500 B.C.). From left to right: *back row*, plain mushroom stone with grooved decoration, height 14 cm.; effigy mushroom stone, possibly a vulture, height 18 cm.; effigy mushroom stone representing an owl or Moan bird, height 15 cm.; effigy mushroom stone, an aged individual seated crosslegged, height 17.5 cm.; effigy mushroom stone of a seated individual with clenched fists, not associated with the cache, height 19 cm.; mushroom stone in form of a youthful individual seated crosslegged, height 16 cm.; plain mushroom stone with vertical gouging, height 17 cm.; tripod mushroom stone, height 16 cm.; plain mushroom stone with vertical gouging, height 14 cm.; *front row*, miniature legless metate with mano, length of metate 10 cm., width 8 cm., length of mano 6 cm., diameter 2 cm.; plain mushroom stone with incised decoration, height 14 cm.; miniature metate with mano, dimensions same as other metate and mano.

that the nine miniature mushroom stones in the Nottebohm collection with their nine metates and manos, found in the cache in the Verbena cemetery area, are at least as early as 1000 B.C. The custom of circularly grooving the base of the mushroom-stone caps was discontinued after the Early Preclassic period. The Late Preclassic (500 B.C.–A.D. 200) and Classic (A.D. 200–900) period carved effigy, plain, and tripod mushroom stones have only plain caps (Fig. 2).

It is interesting to note that the same Tomb I of Mound E–III–3 also contained four small mortars and pestles of gray stone, two of them in the shape of toads (Shook and Kidder 1952, Fig. 78 a–c, e). Shook and Kidder (1952: 111) observe that “neither the grinding depressions nor the ends of the pestles show appreciable wear and although it seems probable that these mortars were designed for pulverizing paints, none retains any trace of pigment.” Furthermore, “the two round mortars and the two small ones with amphibian heads were stacked together in a great pile of offerings along the south side of the tomb and all five pestles lay with them.”

There seems little doubt that the jaguar-effigy mushroom stones and the stone mortars were placed in the tomb as burial offerings. It should also be noted that three other fragments of the heads of mushroom stones were found in the fill of Mound E–III–3.

It is significant that the nine miniature mushroom stones and the nine metates and manos in the Nottebohm collection were found as a unit in a cache. Ceremonial offerings, such as jade carvings, stingray spines, eccentric flints and incised obsidian blades in groups of nine have frequently been encountered in the Maya area. Most, however, were found in association with burials or as sub-stela caches or vault caches in sites in the Lowland Maya area (such as, Uaxactún, Tikal, Guatemala, and Baking Pot, Pomona, British Honduras; summary in Kidder 1947: 21–4, 59, Figs. 69–71). These caches date, not from the Preclassic, but from the Early and Late Classic (mostly Tepeu 2, A.D. 700–800) periods. To my knowledge, no Preclassic Highland Maya cache offerings in the number nine have previously been reported.

TABLE 1. TYPOLOGY, CHRONOLOGY, AND DISTRIBUTION OF MUSHROOM STONES*
(Modified from Borhegyi 1957)

<i>Types</i>	<i>Chronology</i>	<i>Distribution</i>
Type E		
Miscellaneous and possibly related stone (41-45) and pottery (46-48) objects	Chronological position uncertain	Central Guatemalan Highlands Uncertain locality (41-45) Western El Salvador Santa Elena (48) Eastern El Salvador Not illustrated (compare 46-48) Quelepa, San Rafael-Oriente, and Lolotique in Dept. San Miguel Santa Elena in Dept. Usulután Mexico Not illustrated Guanacaste, Chiapas (compare 48) El Bellote, Tabasco (compare 44, 46)
Type D		
Tripod mushroom stones with plain (39, 40) or carved (38) stems and with clubby (40) or sharp angled (38, 39) feet	Late Classic A.D. 600-900	Central Guatemalan Highlands Kaminaljuyú (38-40) Not illustrated Antigua (compare 38-40) Zacualpa (compare 39, 40) Eucaliptus Agua Caliente Amatitlán Pompeya San Martín Jilotepeque Tecpan-Iximché Mixco Viejo (compare 40) Pacific Coastal Plains of Guatemala Not illustrated (compare 39) El Baúl Los Diamantes El Carmen Western El Salvador Not illustrated (compare 39) Tazumal Finca la Montaña
Type C		
Effigy (17-31) or plain (32-37) mushroom stones with square (17, 18, 20-23, 25, 26, 28, 31, 35) or rounded (19, 24, 32-34, 36, 37) bases and without circularly-grooved caps	Late Preclassic 500 B.C.-A.D. 200 and probably Early Classic A.D. 200-600	Central Guatemalan Highlands Kaminaljuyú (17-20, 27-29) Cerro Alux, Mixco (31) Salcaja (25) Uncertain locality (21-24, 26, 30) Not illustrated Tecpan-Iximché (compare 18, 36) Amatitlán (compare 20) Pacific Coastal Plains of Guatemala Lago Ixpaco (36) Not illustrated Lago Ixpaco (compare 20) El Salto (compare 21) Guazacapan (compare 31) Retalhuleu (compare 28) Ayarza (compare 18) Mexico Ocosingo, Chiapas (32) Not illustrated La Grandeza, Chiapas Chiapa de Corzo, Chiapas (compare 32) Oaxaca (compare 32, 33, 36, 37) Tabasco (compare 32) Western El Salvador Tazumal (33) Las Victorias (35) Uncertain locality, probably Chalchuapa area (37) Bolivia, South America Inca-Uyu, Chucuito (34)

* Numbers in parentheses refer to objects illustrated in Figure 2.

TABLE 1. TYPOLOGY, CHRONOLOGY, AND DISTRIBUTION OF MUSHROOM STONES (continued)

Types	Chronology	Distribution
Type B		
Effigy mushroom stones with circularly-grooved caps and square (12-14) or tripod (15, 16) bases	Early and Late Preclassic 1000 B.C.—A.D. 200	Central Guatemalan Highlands Kaminaljuyú (12, 13, 15) Quiché (16) Uncertain locality (14)
Type A		
Anthropomorphic stone sculptures with plain (1-5, 7) or circularly-grooved (6) mushroom caps; plain (10, 11) and circularly-grooved (8, 9) stone mushroom caps	Chronological position uncertain	Central Guatemalan Highlands Kaminaljuyú (2-4, 8, 10) Salcája (6) Chukumuk (9) Xikomuk (11) Uncertain locality (1, 5, 7)

What is the significance of the number nine in ceremonial cache offerings? According to Thompson (1950: 12):

In the pantheon of the peoples of Mexico and of the Maya there was a group of nine deities, called in Yucatec Bolon-ti-Ku, "nine gods," who were the lords of nights, and gods of the underworld. They ruled in succession over the nights, in contrast to the 13 sky gods who apparently ruled the days in sequence.

The glyphs of the nine Maya lords of nights and gods of the underworld are known (Thompson 1950, Fig. 34), but not all of them can be properly identified. On the other hand, the names of the nine lords of the nights of the Aztec have been preserved for us by Serna (1892). With the corrected orthography of Thompson (1950: 208), they are:

1. Xiuhtecutli, God of fire, year or grass.
2. Itzli, God of flint.
3. Piltzintecutli, Lord of the youths or youthful lord.
4. Centeotl, God of maize, ears of corn, and bread.
5. Mictlantecutli, God of infernal regions.
6. Chalchihuitlicue, Lady with skirt of jade.
7. Tlazolteotl, Goddess of love.
8. Tepeyollotl, Heart of the mountains (jaguar).
9. Quiauitecutli (Tlaloc), Lord of the rain.

The glyphs of the Maya Lords of the nights do not correspond closely to the Mexican gods. According to Thompson (1950: 208-10, Fig. 34), the Maya series presumably starts with glyph G_1 and ends with G_9 . They may be summarized with reference to their various representational contents as follows:

- G_1 Head of God C, water symbol (circlets, Kan cross), monkey features, fish symbol.
- G_2 Water symbols (small circles), head variant that of a youthful deity, jade and vegetable symbols, possibly a rain deity.
- G_3 Moan bird, bird of the rainclouds, a pluvial deity.
- G_4 Roman nose deity, possibly a maize deity.

G_5 Earth monster, Mam (the god of the interior of the earth), the conch man.

G_6 A youngish deity.

G_7 Jaguar paw, puma, a deity of the interior of the earth (a counterpart of the Aztec jaguar god, Tepeyollotl).

G_8 Conch shell (symbol of the surface and the interior of the earth), Mam.

G_9 The night sun, aged sun god.

Admittedly, any attempt at identification of mushroom stones, with the nine gods of the Aztec or Maya pantheon, is on very shaky ground. Nevertheless, many if not all of the mushroom stones, both miniature and large, may possibly represent Highland Maya versions of the nine lords of the nights. They are listed here with tentative identifications in parentheses. Numbers refer to Figure 2.

1. Aged individual, seated crosslegged or squatting (aged sun god, night sun, Xiuhtecutli, G_9 — 1, 2, 16, 17).
2. Youth, seated crosslegged or squatting (Piltzintecutli, youthful lord, G_3 — 3-6, 18, 19, 41, 42).
3. Birds, such as vultures, owls, Moan birds (G_3 —28-30).
4. Monkeys, may be the spider monkey (G_1 , God C—21).
5. Jaguars or pumas (Tepeyollotl, G_7 —12, 15, 20, 22, 43).
6. Rabbits or deer (fertility, moon — 13, 14, 23, 24).
7. Pisotes, coati-mundi, *chic* — association with buffoonery, women, sex, and love (25-27, 44).
8. Toads or frogs, rain association (G_2 — 31, 45).

Of the nine miniature effigy mushroom stones in the Nottebohm collection, the second from the left in Figure 1 represents a bird (possibly a Moan bird or G_3); the fourth from the left represents an aged individual, seated crosslegged (possibly the night sun or G_9); the third from the right represents a jaguar (possibly Tepeyollotl or G_7); and the fourth from the right represents a youth, seated crosslegged (possibly youthful lord, G_6 or G_2). No explanation can be

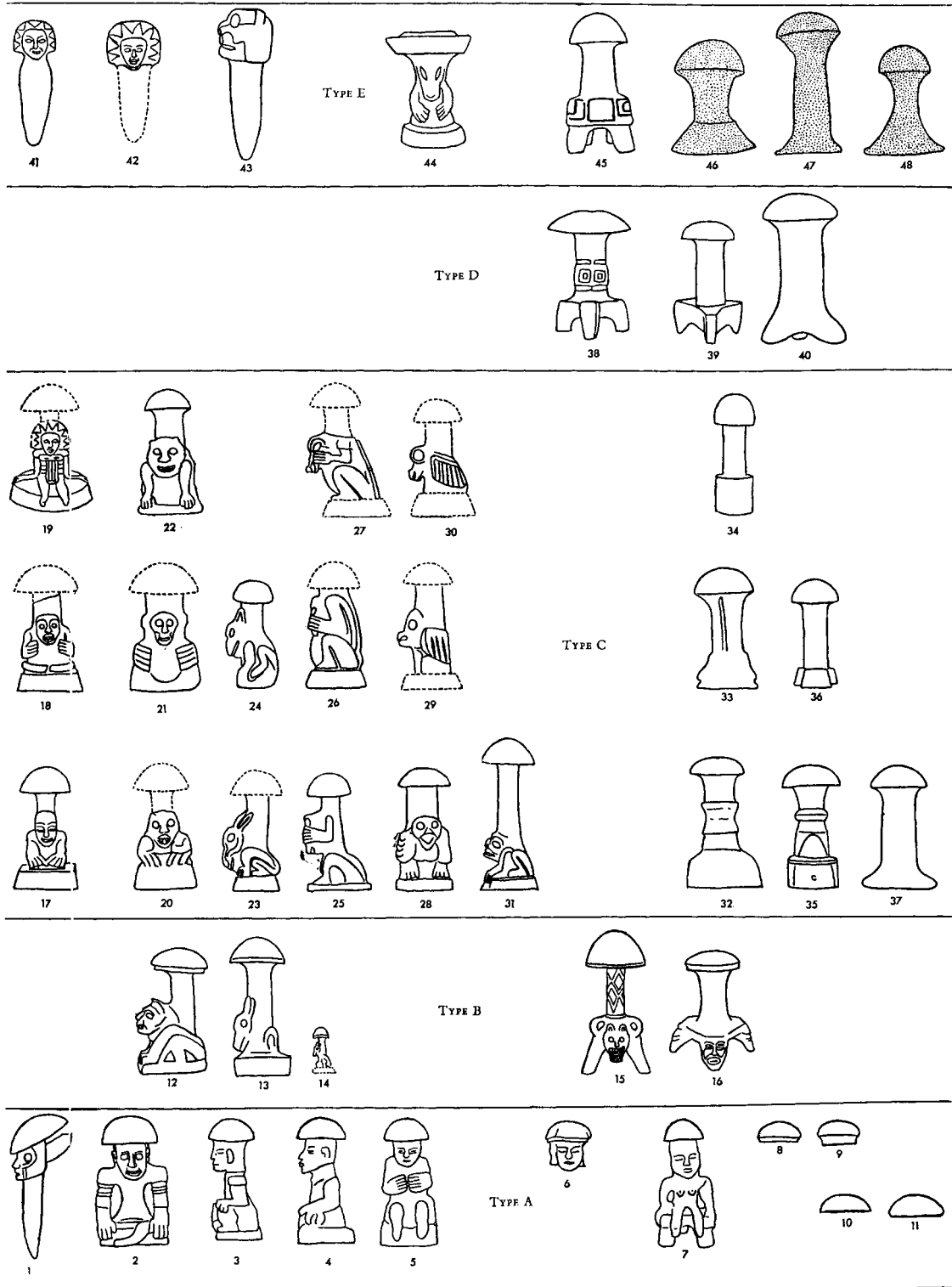


FIG. 2. Typology of mushroom stones. See Table 1 for explanation. Modified from Borhegyi 1957.

given for the additional bird effigy, or for the three plain and one tripod mushroom stones.

Whether or not the tentative identification of four of the miniature mushroom stones with the gods of the night is correct, the presence of nine offerings in a ceremonial cache from the Preclassic period indicates that the Maya belief in the nine gods of the underworld—and possibly in the 13 gods of the sky—may have originated as early as 1000 B.C. This period also saw the beginning of mound-building activities and rich tombs in the Maya Highlands. This presupposes a highly organized and stratified, social structure. There has been some debate as to whether the social control necessary for the production of such large-scale public enterprises was externally motivated (in the form of a “police force”), or internally motivated (belief in the rewards of heaven and the punishments of hell). If the nine gods of the underworld did, indeed, represent the idea of a “hell,” as reported by the early Spanish chroniclers, then the presence of the nine mushroom stones in a Preclassic cache may indicate the existence of this concept among the Highland Maya, at a very early date. It would also explain why pilgrims, flocking to the Maya ceremonial centers, were willing and eager to enlist in the extensive building activities.

The purpose of the nine miniature metates and manos is still in question. Like the four small mortars and pestles found in Tomb I of Mound E-III-3, none shows signs of wear or use. Their presence with the mushroom stones must, therefore, have been primarily ceremonial or symbolic. Could this suggest that regular-sized metates and manos were used in connection with the larger mushroom stones? Could they have been used to pulverize or crush actual dried or fresh “sacred” mushrooms (*teo-nanacatl*) to induce, when eaten, hallucinatory trances and dreams — dreams in which, according to 16th century Spanish chroniclers, jaguars, birds and snakes, as well as little gnome-like creatures (possibly gods of the underworld) were seen (Wasson and Wasson 1957: 223-4)? These and other questions still await an answer.

Pertinent to the mushroom stone and metate problem is the discovery by R. G. Wasson and Robert Ravicz in June and July, 1960, that the metate is still used in the mushroom rite among the Mixtec of Oaxaca. They found that the sacred mushrooms (*Psilocybe mexicana* Heim) are supposedly gathered by a virgin (usually female), that the virgin grinds them on a metate

with a little water, and that the gray fluid heavy with sediment is then drunk by the person who wishes to consult the mushroom. This practice has not been reported elsewhere, but perhaps it survives in other areas not yet explored. If the ceremonial metates were a symbol of this practice, is it possible that the mortars and pestles reflected the crushing of the *ololiuqui* seeds, which were and are widely used as a substitute for mushrooms when the latter are not available?

An effigy mushroom stone in the Namuth Collection in New York (Fig. 3; also illustrated in Wasson and Wasson 1957, Vol. II, Pl. 44) represents an aged woman kneeling before a metate-like object. She is shown in the characteristic position employed by women to grind meal. The specimen is from the Guatemalan Highlands and belongs stylistically to the Preclassic period (Type B mushroom stones). It is quite possible that this mushroom stone depicts a Preclassic version of the very same mushroom-grinding ceremony observed by Wasson and Ravicz among the present day Mixtecs of Oaxaca.

When all questions of a theoretical nature are put aside, we can derive from the miniature mushroom stones in the Nottebohm collection the following new facts and inferences of interest to Highland Maya prehistory:

1. The existence of miniature mushroom stones (height of 10 to 19 cm.).
2. Their ceremonial association, in a group of nine, with miniature metates and manos.
3. The antiquity of the “mushroom-stone cult,” as far back as the Verbena subphase of the Miraflores phase (1000-500 B.C.).
4. The possible association (or even representation) of the *Bolon-ti-Ku*, the nine gods of the night and the underworld.
5. The possible existence of the nine-day cycle and nocturnal count in Preclassic times.
6. The possibility of a more elaborate pantheon and counting system among the Preclassic Highland Maya than previously assumed.
7. The possibility that at least in some areas in pre-Columbian Mesoamerica, metates or mortars were used to grind the sacred mushrooms, or crush the *ololiuqui* seeds, before ceremonially drinking or eating them.

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This paper is dedicated to the memory of Dr. Valentina Pavlovna Wasson who, unfortunately, did not live long enough to see the many important results deriving from the research she conducted in collaboration with her husband, R. Gordon Wasson.



FIG. 3. Large effigy mushroom stone representing an aged woman kneeling before a metate, from highland Guatemala, exact location unknown. This Late Preclassic (1000-500 B.C.) specimen is in the Hans Namuth collection, New York. Height 36 cm. Photograph by Hans Namuth.

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