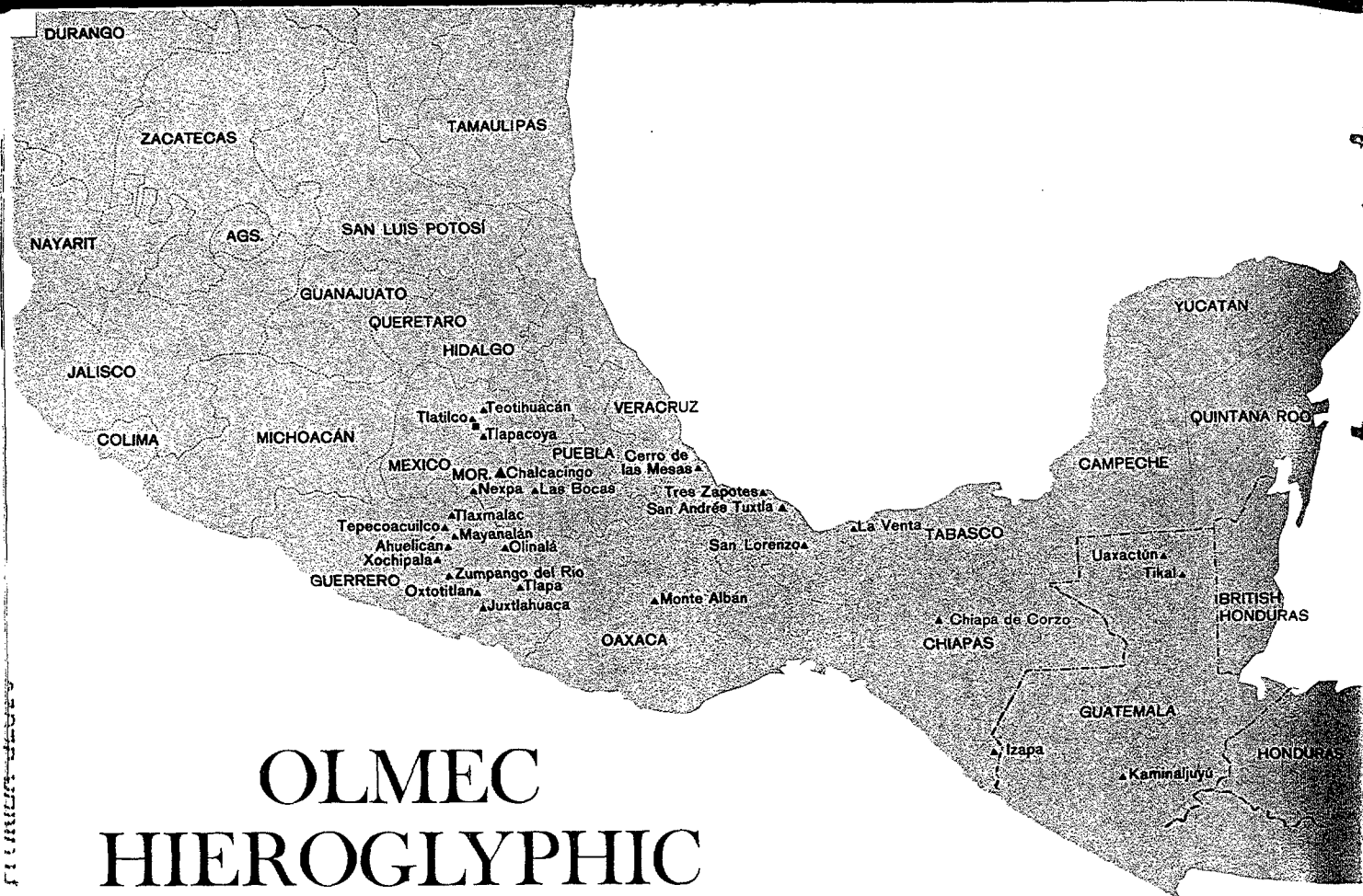




OLMEC HIEROGLYPHIC WRITING

The Probable Background and Meaning
of an Inscribed Stone Tablet
from Ahuelicán, Guerrero, Mexico

By CARLO T. E. GAY

DRAWINGS BY FRANCES PRATT

Ever since the early 1940's when Matthew Stirling made his momentous discoveries at the sites of Tres Zapotes, La Venta and San Lorenzo, the Olmec culture has been a source of lively interest and archaeological controversy. While it is generally agreed that the culture reached its full maturity at the turn of the second millennium B.C. and that it should be credited for developing fine lapidary work, monumental sculpture and ceremonial architecture, there is still much uncertainty as to the extent to which the Olmecs contributed to the development of the calendar and hieroglyphic writing in Mesoamerica.

Hieroglyphic writing, in particular, is one of the achievements occasionally attributed to the Olmecs which have never been verified. I believe,

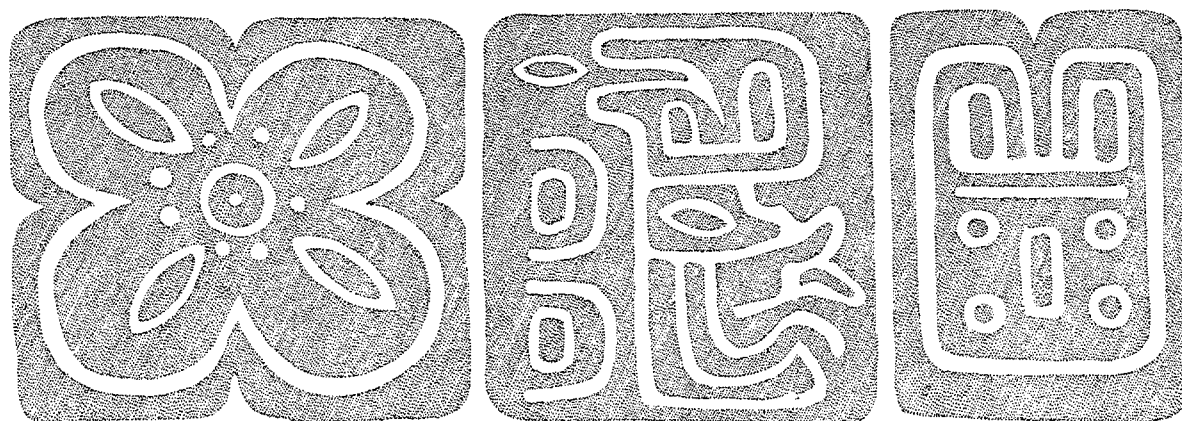
however, that an inscribed stone tablet from Ahuelicán, Guerrero—now in the collection of the Dallas Museum of Fine Arts—affords a positive and definitive answer. Before discussing the Ahuelicán inscription it is pertinent briefly to review a few other early Mexican texts previously published, and then to analyze the various stages through which the Olmec system of picture writing evolved.

David H. Kelley, writing in *American Antiquity* 31 (1966) 744-46, reported and commented on five early Mexican texts. One of these, a three-register text from a ceramic roller stamp, is clearly non-Olmec in character and, as Kelley says, "The writing system [of the stamp] is unlike any previously known and is typologically more advanced than other Mesoamerican systems." Kelley suggested that this text may be the oldest known in Mesoamerica. However, the accidental circumstances under which the stamp was found, as they are described by Kelley, preclude its being accurately dated. If the writing is indeed more advanced than other Mesoamerican systems, then the author of the inscription can neither have preceded nor been coeval with the Olmecs, since we know of no other central highland culture that was equally advanced at the time. In over 3,000 designs of Mexican ceramic stamps, I have seen nothing that compares with the one that Kelley cites; it is stylistically unique and cannot be dated or classified at the present time.

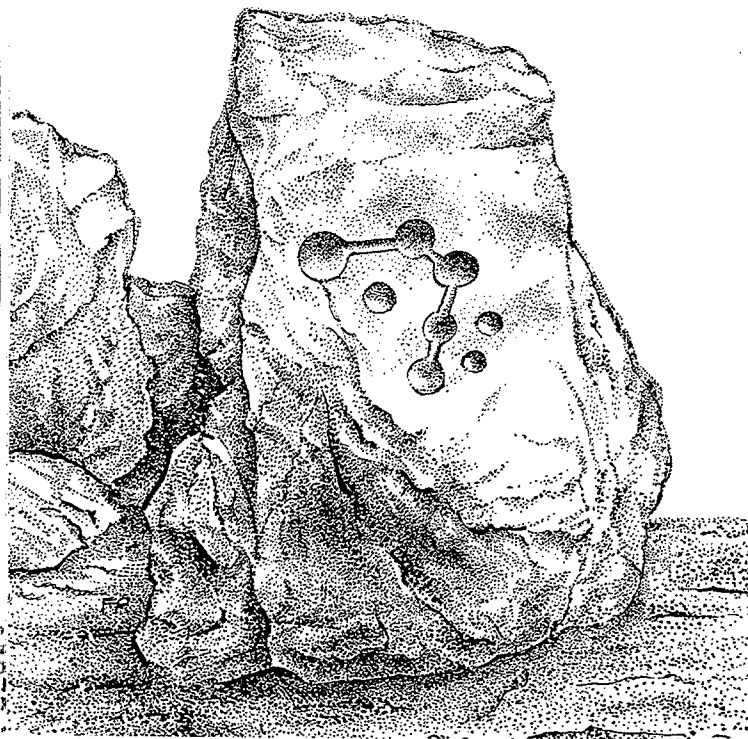
Of the other four texts introduced by Kelley, a three-sign composition from a Tlatilco roller stamp and a group of three glyphs on Monument 13 from La Venta, Tabasco are unquestionably Olmec, whereas a text from a jade

pectoral and one from a ceramic stamp from Chiapa de Corzo, Chiapas are typologically post-Olmec even though they may be Olmec inspired. The three-sign composition on the Tlatilco stamp includes, from left to right, a floral motif vaguely resembling the Maya day sign "Kin," a conventional depiction of the Olmec god of rain and agriculture (normally, the profile faces left instead of right) and an abstract design probably emblematic of the rain god. The quincunx sign in the last of these glyphs may denote the manifold character of the deity—somewhat like the Maya conception of the rain god, a being of one substance who has four separate entities. Variants of the Olmec quincunx sign occur in the state of Guerrero, in the central highlands and along the Gulf Coast. In three examples from Tlapacoya the quincunx sign is formed by five dots located inside a cleft element. The three components of the stamp design may express a single coherent idea. But for the time being I am unable to advance a satisfactory interpretation. The same applies to the text on Monument 13 at La Venta.

Other early texts, such as the inscriptions on Stela C from Tres Zapotes, Veracruz, dated to 31 B.C., and the inscription on the Tuxtla Statuette, dated to A.D. 162 (ca. 291 B.C. and 98 B.C. according to the Spinden correlation), are too far removed from 600 B.C., the accepted end of the Olmec phase on the Gulf Coast, to be considered examples of Olmec hieroglyphic writing. In addition to consisting of glyphs that are clearly post-Olmec in style and content, both inscriptions include a bar-and-dot date in the Maya Long Count system which, so far as we know, cannot be ascribed to the Olmecs.



Three-sign composition from a Tlatilco roller stamp. Length, 21 cm. Collection of Frederick V. Field.



Group of eight cupules on a megalith near Xochipala, Guerrero.

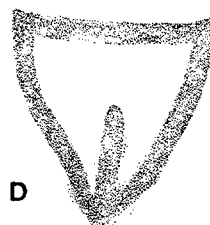
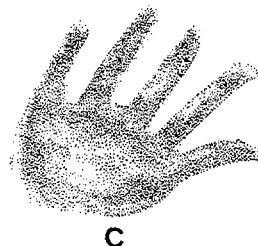
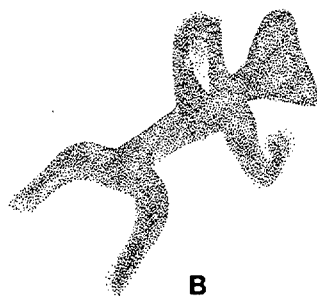
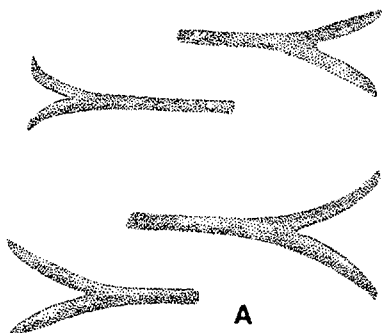
Let us turn now to the development of the Olmec system of picture writing which stretched over many centuries. There are at least five main stages in the evolution of Olmec symbolism from about 1500 to 500 B.C. Each is characterized by a distinctive form of expression and/or method of representation: cupules, pictographs, petroglyphs, ceramic stamps and inscriptions on portable objects. The scheme introduced here is based on the assumption that Olmec symbolism became increasingly specialized as it progressed from one stage to the next and that the thematic content of the symbols, their manner of representation and the context in which they are found have chronological significance. All the data contained in this article is subordinate to the tentative scheme as reconstructed.

Cupules, or cup-marks, are probably the earliest of all man-made symbols. They were widespread in prehistoric times, especially in western Europe where their earliest occurrence, at La Ferrassie, France dates to the Mousterian period (40,000-35,000 B.C.). In the New World cupules are one of the distinctive traits of the Olmec tradition: they were probably used for noting periods of time or recording celestial phenomena that were thought to influence human life. It is

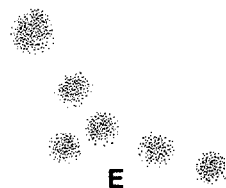
possible, too, that they served more esoteric purposes. In chronological order examples include: a group of eight cupules cut into the vertical face of a huge rock which overlooks a spring near the mountain village of Xochipala, in the state of Guerrero; various cupules on four megalithic altars and one bas-relief at Chalcacingo, Morelos and many others on several colossal stone heads from San Lorenzo and La Venta on the Gulf Coast.

Five of the cupules at Xochipala are connected by shallow channels. The assumption that this pit-and-groove work is the earliest known example that can be attributed to the Olmecs is based on the fact that in recent years an important ceramic tradition exhibiting formative Olmec traits has been discovered in this area. A comparative study of a significant body of ceramic figures from Xochipala with Olmec figures from the central highlands and the Gulf Coast indicates that the Olmec phase at Xochipala may have extended as far back as the middle of the second millennium B.C. and possibly even earlier. In the vicinity of Xochipala there is also an earthen mound flanked by two undressed monoliths. Both these monoliths and the megalith with the eight cupules are distinctively archaic in character and likely to predate the formal Olmec monuments of the Gulf Coast.

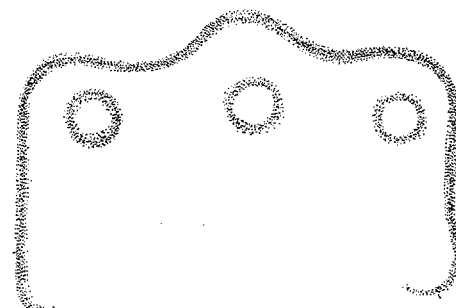
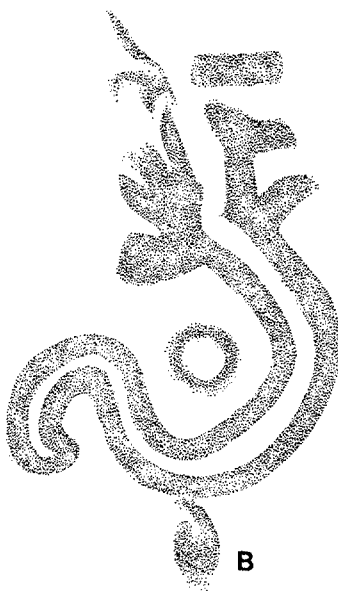
One of man's earliest means of recording elementary ideas consisted of pictographs—abstract symbols and schematized representations painted on the walls of caves and rock shelters. The Olmecs left at least 32 such symbols in the Sanctuary of the Pictographs at Chalcacingo and others among the decoration of the deep-cave sanctuary at Juxtlahuaca, examples which show the Olmec made several types. Some, like hand and vulva signs, are representational symbols derived from nature or artifacts; their inspirational sources are generally recognizable, despite abstract, conventionalized depiction. Nonrepresentational symbols are generally obscure and their interpretation depends upon their associations with other signs or a specific iconographic context. Pictograph 10 at Chalcacingo, a series of vertical strokes, may have numerical significance, may be a substitute for spot signs or may depict rain. Finally, in the corpus of Olmec pictographs, there are a few compound signs consisting of both representational and nonrepresentational symbols. Such signs are the first step toward a



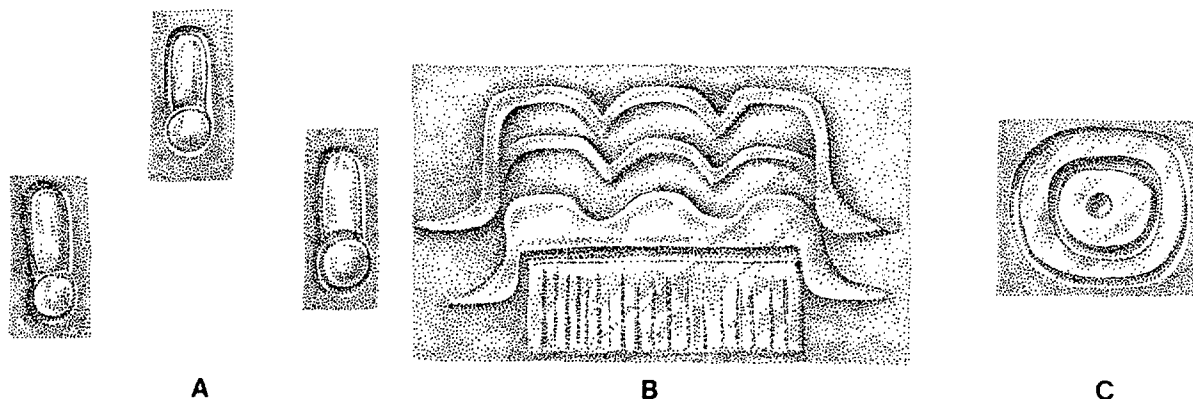
Representational symbols from Chalcacingo. A: Pictographs 6, 7, 8 and 9. Well-defined bifid signs strongly suggest reptiles, basic to Olmec iconography. Maximum length, 14 cm. B: Pictograph 19. The supine position of the figure relates to the submissive attitude of the two humans overcome by felines on Relief 4 and one human overcome by a serpent on Relief 5 at Chalcacingo. Length, 14 cm. C: Pictograph 22, one of the two hand signs in the sanctuary. Length, 10.8 cm. D: Pictograph 27. This vulva sign and another near it are paired with two spot signs, an occurrence identical to the pairing of cupules and triangle-and-slit signs incised on stone slabs and boulders from Paleolithic Europe. Height, 14.6 cm.



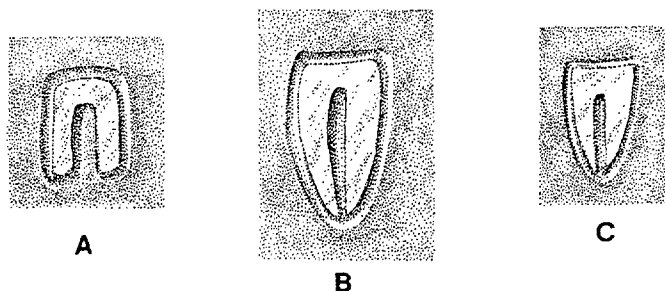
Nonrepresentational symbols. A: Pictograph 3 at Chalcacingo, a possible inverted variant of the triangle-and-slit sign. Height, 15.2 cm. B: Pictograph 10 at Chalcacingo. Height, 12.7 cm. C: Pictograph 14 at Chalcacingo, the common Olmec cave and/or earth sign. Height, 5.1 cm. D: one of two checkerboard symbols, probably paired with two animal heads at Juxtlahuaca. Diameter, 17.1 cm. E: spot signs at Juxtlahuaca, representing the closing mark to the sanctuary. Overall length of the group, 86.4 cm. Three similar groups precede the main decoration at the same sanctuary.



Compound symbols. A: Pictograph 11 at Chalcacingo. At first glance, the head of the schematic figure seems to be abstracted to an eye, but the circle with a central dot may be a symbol in itself. It relates to five signs on Relief 1 at Chalcacingo, which in turn are similar to the Maya glyph for water, and therefore it may express a water concept. Height, 20.3 cm. B: Pictograph 15 at Chalcacingo. Height, 22.8 cm. C: the compound symbol directly above figure c of Painting 1 at Juxtlahuaca. This incomplete sign represents a serpent's rattle and is like three inverted rattle symbols on the headdress of the personage on Relief 1 at Chalcacingo, each of which includes three pendant-dot signs symbolizing rain. The combination of a reptilian motif and a three-dot sign is consistent with a number of Olmec themes usually connected with rain invocation. Height, 19 cm.



Three primary petroglyphs from Relief 1 at Chalcacingo. A: three of the fifteen pendant-dot signs which symbolize rain. Average height, 10.2 cm. B: one of three cloud motifs resembling cumuli formations. Vertical lines suggesting rain fringe the bottom of each cloud. Height, 33 cm. C: one of five circle-and-dot signs, probably a water symbol similar to the Maya glyph for water. Diameter, 16.5 cm.



Signs on the Altar of Agua Bendita. A: inverted U-sign, the Olmec cave and/or earth symbol, which here serves to stress an earth deity concept central to the theme of the altar decoration. Height, 12.7 cm. B and C: triangle-and-slit signs, which are among the most graphically conventional vulva representations of all time. In this instance, they are symbolically paired with a phallic stalactite that overhangs the altar to describe a fertility concept.

picture writing expressing composite ideas. Pictograph 15 at Chalcacingo is a good example. It is a creature embodying bird and serpent elements, a combination inherent in the Olmec feathered serpent theme (possibly the Olmecs thought birds and reptiles were genetically related because both are oviparous). The loops of the creature's body form a U-sign which encloses a circle symbol. The ensemble thus suggests a composite idea.

The use of the terms "pictographs" and "petroglyphs" is often confused and mistakenly in-

terchanged; but their meanings are quite distinct. Unlike pictographs which are painted, petroglyphs are incised, pecked or carved in low relief on rock; pigments may be used to enhance the image. Although it is probable that a number of Olmec petroglyphs were derived from pictographs, it is difficult to establish their relative chronology and, if we exclude the cupules, to determine which were introduced first. There are two examples of petroglyphs—possibly Olmec inspired—that may predate the pictographs at Juxtlahuaca and Chalcacingo, but these, an inverted U-sign and a pair of triangle-and-slit symbols on the altar of Agua Bendita, Guerrero cannot be taken as evidence that the altar is Olmec in origin. Nor can they indicate when it was made.

Olmec petroglyphs can be segregated into two main classes: (1) primary symbols, for the most part restrictive in character, and (2) figurative compositions of a broader symbolic or mythological significance. Primary petroglyphs frequently function as supporting components in complex compositions developed around a central figurative theme. Three examples of primary symbols from Relief 1 at Chalcacingo will illustrate this point. They are pendant-dot signs symbolizing rain, cloud motifs and circle-and-dot signs symbolizing water. Placed in the background of the composition, they add significance to the main theme, which describes a rain invocation rite.

With the passage of time, some of the earliest Olmec symbols, such as the triangle-and-slit sign, became obsolete; others continued to be used in their original or a modified form, and gradually new signs were added to the Olmec repertory of symbols. These symbols grew progressively more formalized as they were repeated over and over on works in various media—stone, ceramic and even perishable materials like wood. Eventually, a revolutionary innovation occurred: the introduction of ceramic stamps. It is not known whether this was an Olmec invention, but the fact that most ceramic stamps occur in the central highlands would suggest that it was. Now, for the first time, it was possible to duplicate on a relatively large scale a number of complex ideographic passages, probably magical in content, which could be distributed among the peasant population to the advantage of the religious group governing the community.

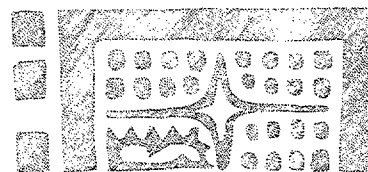
Olmec ceramic stamps were not used for body, textile or ceramic decoration. Since many of their themes relate to rain and water concepts, it is conceivable that farmers relied on magical symbols—printed, perhaps, on bark paper or animal skin—to propitiate the gods or the forces of nature at planting time. Olmec ceramic stamps afforded an efficient method of multiple reproduction of ideograms, which transcended the limitations basic to symbols painted or carved upon rock. This does not necessarily mean that stamp designs were part of an organic system of writing; they were still heterogeneous ideograms, some of which were interchangeable, while others were modified or re-created to suit a particular theme.

Ceramic stamps found at Las Bocas, Puebla are particularly informative because of the variety and clarity of their ideograms. If the examples pictured here are to a certain extent repetitive, they serve to stress the importance of the numeral three in complex Olmec ideograms and substantiate the validity of the numeral's association with the cave and/or earth sign in the Ahuelicán inscription.

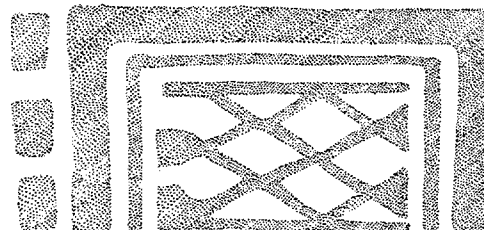
The first ideogram consists of two distinct elements: a recognizable numeral represented by three dots followed by a composite symbolic theme. The latter includes an inverted U-sign, a four-pointed star, 42 dots and a curious motif in the lower right corner which I cannot identify. The manner of delineation of the star is fairly common among Olmec symbols of this kind. In at least one example, incised on a ceramic vessel



A



B



C

Roller stamp designs from Las Bocas, Puebla. A and B are similar with only a rearrangement of the elements and a different number of dots to distinguish them from each other. Respective lengths, 14.3 cm., 8.6 cm. The ideogram C clearly deals with rain concepts as the net pattern filling the cave element symbolizes clouds. Length, 6 cm. The inverted U-element of D is probably a variant of the Olmec cave or earth sign. Because of its oblong delineation and an inner element, the sign also has the configuration of a conventionalized vulva symbol. Sometimes the inner element is like a serpent; in other instances, the ends of the U-shaped element terminate in serpent heads. Height, 11.7 cm.



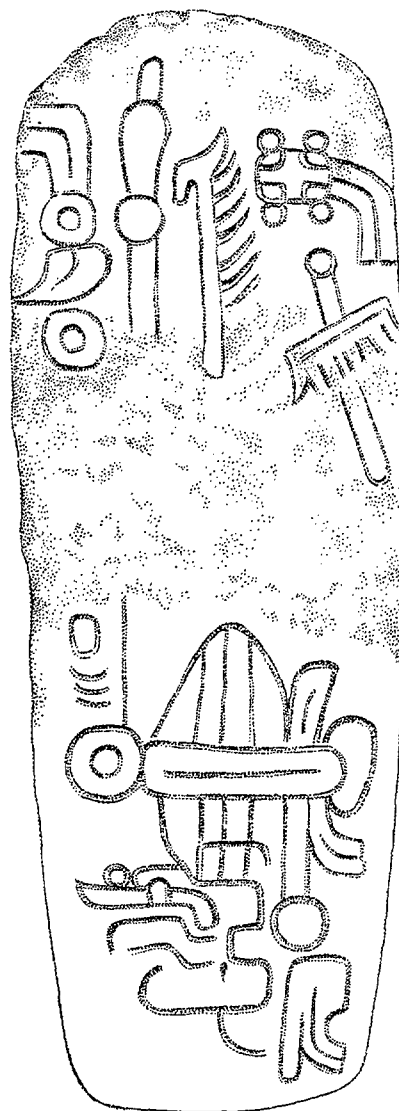
D

from Tlapacoya, Mexico there is a dot in each of the quadrants formed by the four points of the star. Other than the fact that it lacks a cartouche, this particular symbol is identical to one of the Maya glyphs for the planet Venus (Thompson's Glyph 510a). If the identification of the Maya glyph is correct, the star motif on the stamp may conceivably be a Venus sign, for there is sustaining evidence that a number of Maya signs were derived from Olmec symbols. The inverted U-sign in which the "Venus" sign is enclosed probably describes a celestial cave.

The 42 dots may represent raindrops, corn kernels or, less likely, heavenly bodies. Either corn kernels or raindrops would be compatible with the generally propitiatory theme of the design. The numeral three functions as a supporting factor, as it does in many other Olmec symbolic schemes concerned with rain invocation. Interestingly enough, there is another Maya glyph for Venus, one that has a cluster of six dots at each end of a cross motif (Thompson's Glyph 510d). The motif in the lower right corner of the stamp may be an unusual sun sign, its serrated outer edge symbolizing rays. If this is the case, the central purpose of the ideogram could be to describe a conjunction of the planet Venus with the sun—an event which, to the Olmecs, might have been a good omen. Related stamps have been discovered, with a rearrangement of these same elements or certain substitutions, e.g., a net pattern, one of the Olmec symbols for clouds, replacing the dots.

Along with the use of ceramic stamps, which was principally confined to the central highlands, symbols of various kinds became integral parts of the decoration on portable objects, such as ceramic implements, celts, stone figures as well as ceremonial and ornamental accessories. When associated with figures, these symbols had more or less the same function as those which were added to rock carvings and monuments—namely, to complement and help describe the main theme of the composition or to identify and reinforce the function of the principal character or characters. An example will serve to illustrate this principle.

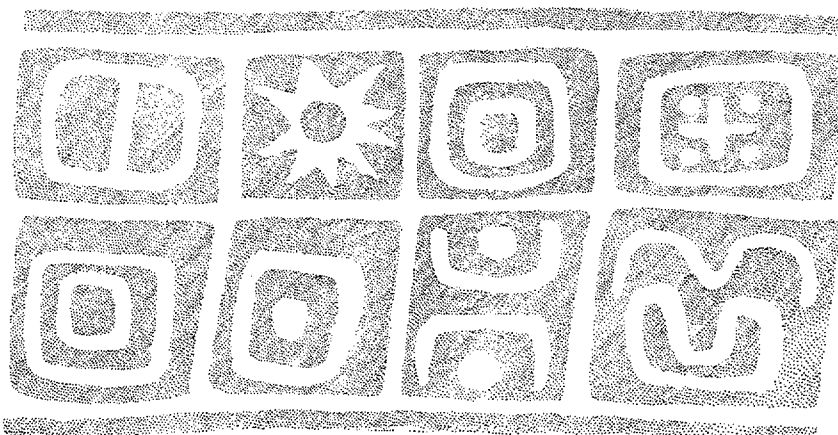
A design on an incised stone celt found in Guerrero includes two themes which combine to create an organic, meaningful whole. A stylized head in profile is on the lower half of the celt, and a group of symbols crowd the upper third.



Incised stone celt from Guerrero. Length, 15.9 cm.

The area between is badly eroded, but I doubt that it ever bore additional signs. The profile head has a closed eye crossed by three vertical lines, a reptilian paw sign beneath the ear ornament, a bead motif in front of the nose, and a composite affix in front of the forehead. It is undoubtedly one of the various conventionalized representations of the Olmec rain god. The three curving lines and the oval which complement the affix are of special interest since they closely resemble a Maya affix (Thompson's Affix 188).

The design on the upper part of the celt includes five distinct signs. The first on the left has four separate elements: a circle containing a smaller circle, possibly a water symbol; a peculiar



Eight-sign composition from a ceramic roller stamp found at Tlatilco. Length, 14.9 cm. Collection of Frederick V. Field



Compound of three signs inscribed on the handle of a ceremonial stone object from Guerrero. Length of handle, 6 cm.

leaf-shaped motif that may describe a seed or a tuber and not, as it might seem, a heart or a vulva sign; another water symbol and a curving double band on top suggestive of a sprout. While as individual elements the components of this sign resemble certain ornamental accessories that are normally associated with depictions of the Olmec rain god, it is conceivable that here, grouped as they are together, they form a compound sign with agricultural connotations.

The second sign resembles a ceremonial baton and is possibly a symbol of authority. I have seen a few similar stone objects from Guerrero. The third sign is a barbed staff, the crook of which is pointed on one side and hooked on the other. It may be symbolic of a planting stick—without, however, being factually accurate. There is a similarity between the head of this staff and the upper end of the baton held by the figure on Stela 2 from La Venta. The fourth sign includes a cross within a single-line cartouche, four dots on the outer edge and a curving double band falling to the right. Not at all unique in the Olmec repertory, this sign closely parallels the Maya “Kan cross,” supposedly associated with water principles. It relates even more specifically to Thompson’s Affix 347 which also has four dots on the edge of the cartouche. Below this cross is the fifth and last sign, a standard consisting of a pole and a fringed element. Since the latter part is similar to the symbolic “curtain of rain” below each of the three cumuli formations on Relief 1 at Chalcatcingo, this fifth sign is probably also associated with rain concepts.

The overall decoration of the Guerrero celt

portrays the Olmec rain god abstracted to a conventional form and complemented by symbols denoting his position and function in a religious system mainly concerned with rain and agriculture. At the time the celt was decorated Olmec picture writing was still in a formative stage. The symbols were either subordinate to figurative compositions or were integral parts of freely realized themes. When the figures ceased to be paramount or were dropped altogether and some sort of linear order was introduced in the composition of ideographic passages, only then did the Olmec arrive at an incipient system of hieroglyphic writing.

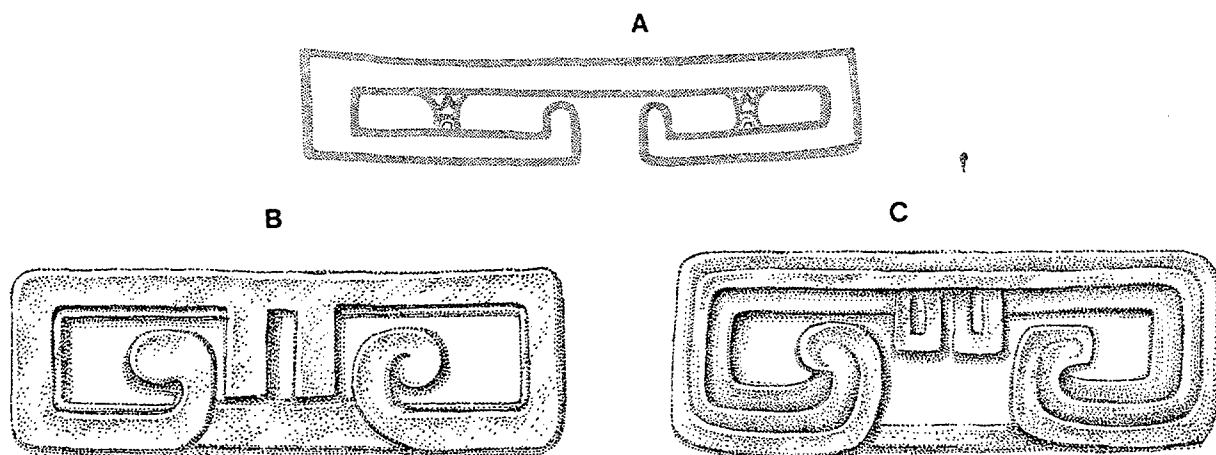
Examples of the final and most advanced stage in the history of Olmec picture writing are comparatively rare. This is probably because such inscriptions were more often committed to perishable material than to stone or clay. Among the most significant examples are an eight-sign composition from a roller stamp, a three-sign compound incised on a stone object and the more complex text on the Ahuelicán tablet. The last of these consists of a series of four glyphs and a numeral set in a row; its complexity and clarity distinguish it as the most advanced Olmec hieroglyphic text presently known. As the purpose of this article is to describe the Ahuelicán inscription, of the other two texts I will only say that the first is probably a “sky band” with sun, Venus and moon-phase symbols, while the other includes a sign for “movement” in the middle and a moon symbol below.



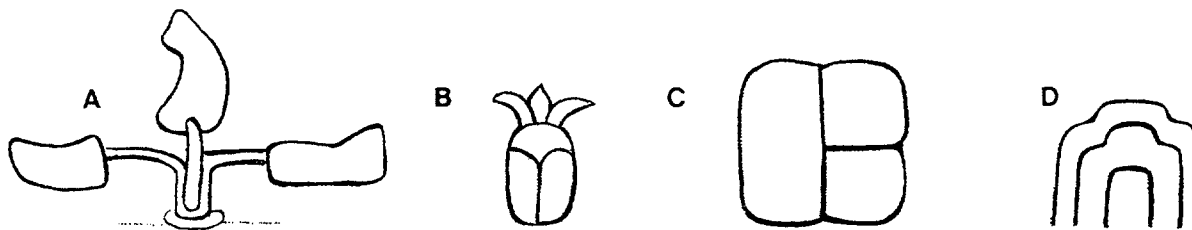
Inscribed stone tablet from Ahuelicán, Guerrero.

The tablet was reportedly found in Ahuelicán, Guerrero in the early 1960's. It measures 8.9 centimeters square and has a maximum thickness of 2.2 centimeters. The stone is grayish in color and has the appearance and hardness of serpentine. There are many minute areas of discoloration—a phenomenon typical of serpentine that is buried for a long time under unfavorable conditions. The corners and the edges of the tablet are rounded in keeping with Olmec aesthetic canons. The even surface finish and slightly scratchy character of the inscription are normal for this kind of Olmec lapidary work.

The first glyph consists of an Olmec cross surrounded on three sides by 13 scalloped elements forming an inverted U-sign. Because of the relative position of the glyph, this U-sign may represent a celestial cave. As the 13 elements are set side by side in a scutate fashion, it is conceivable that reptile symbolism may also be inherent in the entire inverted U-sign. This would be consistent with the close association that exists between the Olmec cross and snake motifs, both



Earth signs. A: on an Olmec vessel from the Chalcacingo environs. B: on Stela 4 from Izapa, Chiapas. C: on Stela 11 from Kaminaljuyú, Guatemala.



A: Plant motif on a stone slab from Mound J at Monte Albán, Oaxaca. B: one of three seed signs on an Olmec celt from Chalcacingo, Morelos. C: symbol on the back of Monument 2 from San Lorenzo, Vera Cruz. D: one of three motifs on an Olmec spoon-shaped object from Tabasco possibly representing a "hill with a cave."

of which are integral parts of the iconography of the Olmec rain god. The scalloped pattern also relates to certain Olmec designs which symbolize clouds. Based on the foregoing, the first glyph can be interpreted as a sky sign, possibly emblematic of the rain god dwelling in a celestial cave during the rainy season.

The second glyph consists of a plant motif compounded with four small oval signs that represent seeds. The plant motif, not unique in the Olmec repertory of symbols, is thematically related to a similar element of a composite design incised on a stone slab of Mound J at Monte Albán, Oaxaca. The proposed interpretation of the oval signs as seeds is confirmed by a similar symbol, obviously signifying a sprouting seed, which is repeated three times on a decorated Olmec celt and the total design of which includes a plant motif comparable to the one on the Ahuelicán tablet. There are still other Olmec symbols—either square or rectangular and usually with rounded corners—that are possibly variants of the same seed sign. Examples of such symbols placed sideways are on the back of Monuments 1, 2 and 6 from San Lorenzo, Vera Cruz. Furthermore, the Ahuelicán seed sign approximates the Maya glyph for a seed (Thompson's Glyph 663). Undoubtedly, the second Ahuelicán glyph describes a *milpa* or corn field.

Most likely the third glyph depicts a mountain or a hill, the innermost element of which may or may not be a conventional cave symbol. In some respects, this glyph is similar to other Olmec signs and possibly stands for a "hill with a cave." There is in fact a hill with a cave near Ahuelicán, and the cave may have been frequented for religious or magical purposes in ancient times. The Olmec penchant for cave concepts is amply exemplified by the deep cave sanctuary at Juxtlahuaca and the Sanctuary of the Pictographs at Chalcacingo, as well as by Olmec iconography generally.

The fourth glyph on the tablet, combined with the third, is easily recognizable as a variant of the Olmec cave or earth sign, which can vary greatly in both its outline and context. Here, more than just an earth symbol, it probably serves to emphasize the cave concept in the preceding glyph. Variants of the Olmec cave or earth sign occur fairly frequently in symbolic compositions of a propitiatory nature. Examples include the four ceramic stamps from Las Bocas and a decorated ceramic vessel from the Chalcacingo region. Though this fourth glyph is drawn

in a cursive manner, typologically it seems to derive from the major variants of the Olmec earth sign. Again a comparison with post-Olmec motifs, such as the earth signs on Stela 4 from Izapa, Chiapas and Stela 11 from Kaminaljuyú, Guatemala is relevant. As time went on the figure became increasingly complex until, finally, it assumed the traits of a conventionalized earth monster.

The last element of the tablet is the familiar numeral three, which, to the best of my knowledge, was among the first numerals the Olmecs used to express plurality. In the beginning, however, it was probably a symbol in itself and not a number in a numerical system. Other dot symbols of one, two and four units, and bar signs, possibly expressing five units, were occasionally used by the Olmecs, but for what exact purpose has not yet been determined. We have no indication so far that the Olmecs ever developed a true numerical system, though it is conceivable that they had some method of counting; very probably they originated a calendric system—not unlike the one used by the Maya—to determine the beginning and duration of the dry and rainy seasons.

The depiction of three dots in conjunction with other symbols, as well as a three-time repetition of certain signs, is frequent enough in Olmec art and iconography to leave no doubt about the function of the number². As it is often an integral part of symbolic themes markedly propitiatory in character, I have concluded that the numeral three may have functioned as a sort of propitiatory constant. In other words, this number may have been regarded by the Olmecs as an essential strengthening component of symbolic representations dealing principally with rain invocation, as is the case in the Ahuelicán inscription. Why exactly the number three? If the Olmecs associated the moon with rain and water concepts (the night dew was probably likened to moon tears), then the number three may have been symbolic of the phases of the moon: new, half and full. Or it could have denoted the three prominent stages of the lunar month, which includes a full moon between one new moon and the next. This intriguing aspect of Olmec symbolism merits careful consideration because the three-dot sign is also a conspicuous component of many Maya glyphs, particularly sky signs (Thompson's Glyphs 561a-561g, 562).

Based on the interpretation proposed for each sign, the text of the Ahuelicán tablet as it reads

from top to bottom can be construed as an invocation to the rain god to make the rain fall on the "milpa," which is seeded on the hill of the sacred cave. In all probability, the U-shaped motifs that are incised along the edges of the tablet denote four celestial caves, one for each cardinal point. This interpretation is based on three principal factors: the first, that since the inscription begins with a sky sign and is concerned with rain invocation, the inscription is symbolically projected at the center of heaven; the second, that an Olmec design carved on a rock on the top of a mountain in the Sierra Madre del Sur includes a similar cave sign at each of the four compass points and, third, that a design incised on an Olmec ceramic vessel from Tlapacoya includes four cave signs placed side by side below the rim and above a conventional profile of the rain god. Moreover, the four squared-off areas in the corners of the Ahuelicán tablet may conceivably designate the four mythical corners of the universe.

While the Ahuelicán inscription is undoubtedly Olmec, its relative complexity suggests a date toward the close of the Olmec tradition between 600 and 400 B.C. The conceptual similarity between the plant motif of the second glyph and a comparable element on a slab of Mound J at Monte Albán, which belongs to Period I of this site (500 to 100 B.C.), seems to support this view. On the other hand, the specific association of the numeral three with a cave or earth sign, as exemplified by a number of roller stamp designs, can be traced back at least to 800 B.C. But this hardly seems strong enough evidence to warrant an earlier date for the tablet. Even if the inscription is as late as the end of the fourth century B.C., it is still a remarkable achievement and confirms beyond any reasonable doubt that the Olmecs did develop a system of hieroglyphic writing that was quite advanced.

The Ahuelicán inscription possibly represents the highest degree of skill which the Olmecs managed to achieve in such writing. By the time it was composed, the Olmecs not only had mastered the use of symbols to make concise glyphic notations but had devised a conventionalized arrangement of the signs in columnar fashion, to be read from top to bottom. This placement differs from the method used by the Maya centuries later, which was based on a two-glyph column.

If we exclude the many conventional attributes and symbolic elements that abound in Olmec iconography, the corpus of signs distinctive enough to be classed as basic ideograms does not exceed 80 in number. Undoubtedly, future research will add to this aggregate, which may seem almost negligible next to the 750-odd glyphs that compose the catalogue of main Maya signs. However, considering that the Olmec repertory of signs preceded the Maya lexicon by several centuries, it was undoubtedly adequate to cover a restricted range of subjects.

The Ahuelicán inscription, then, which is by far the earliest coherent hieroglyphic text now known in the Western hemisphere, is significant not only in the context of Olmec accomplishments, but equally important, if indeed not more so, as the precursor of the Maya system of writing.

FOR FURTHER READING: Frederick V. Field, *Thoughts on the Meaning and Use of Pre-Hispanic Sellos* (Washington, D.C. 1967); Carlo T. E. Gay, "Oldest Paintings in the New World," *Natural History*, 76:4 (1967) 28-35, *Chalcacingo* (Graz, Austria 1971), *Xochipala: The Beginnings of Olmec Art* (Princeton 1972); S. Giedion, *The Eternal Present: The Beginnings of Art* (New York 1962); David H. Kelley, "A Cylindrical Seal from Tlatilco," *American Antiquity* 31 (1966); André Lerøi-Gourhan, *Treasures of Prehistoric Art* (New York 1967); Silvanus G. Morley and G. W. Brainerd, *The Ancient Maya* (Palo Alto, California 1956); Matthew W. Stirling, "An Initial Series from Tres Zapotes, Vera Cruz, Mexico," *Contributed Technical Papers, Mexican Archaeology Series 1* (Washington, D.C. 1940), *Stone Monuments of Southern Mexico* (Washington, D.C. 1943), "Stone Monuments of Rio Chiquito, Vera Cruz, Mexico," *Anthropological Papers, Bureau of American Ethnology, Bulletin 157* (1955); J. Eric S. Thompson, *Maya Hieroglyphic Writing* (Norman, Oklahoma 1960), *A Catalog of Maya Hieroglyphs* (Norman, Oklahoma 1962).

Born in Italy, CARLO T. E. GAY received a Ph.D. in economics in 1940 from the University of Naples and pursued a career in business until 1961 at which time he began to devote himself to the study of early Mexican cultures. He has published widely on Olmec culture and related traditions.