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ABSTRACT

A brief description of the historical approaches to the decipherment of ancient Maya writing is presented in order to provide the background for a description of our current knowledge of the nature and structure of the system. Maya hieroglyphic writing is recognized as a true writing system in that it represents the sounds and structure of spoken language. The writing system is defined as a mixed logographic system containing both pictographic and phonetic elements.

Maya hieroglyphic writing appears in the latter part of the Late Preclassic Period (ca. 150 B.C.–A.D. 100) and is primarily associated with documenting political history and legitimacy. Writing was used to record the events of a ruler's life, validating his right to the throne by documenting his parentage, his accession to power, his conquests, and his performance of important ritual and ceremonial acts. Calendrical information also comprises a major component of Classic Maya inscriptions. Historic events are documented by means of a complex system that both fixes events in time and ties them cyclically to the mythological past.

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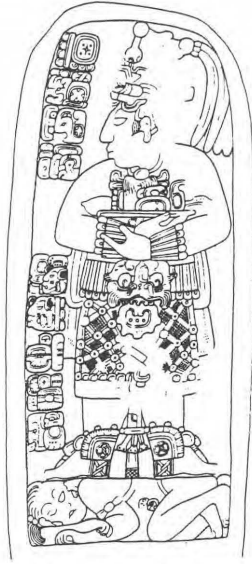
A primary hallmark of ancient Maya civilization is a system of hieroglyphic writing considered to be the most highly developed script in pre-Columbian America. Maya civilization flourished in a tropical area whose modern boundaries encompass eastern Mexico, Guatemala, Belize, and the western portions of El Salvador and Honduras (figure 1). Archaeological evidence indicates that the Maya area was inhabited by at least 1500 B.C., yet it is not until the Late Preclassic Period, extending from approximately 350 B.C. to A.D. 250, that the major social and political changes occurred in Lowland Maya society that resulted in the florescence of Maya civilization during the subsequent Classic Period, which lasted until approximately A.D. 900. Hieroglyphic writing appears as part of a constellation of traits characterizing the newly developed hierarchical social and political order that also includes the construction of massive public architecture and monumental art, economic specialization, intensification in settlement patterns, and the appearance of caches and burials containing prestigious and exotic objects of wealth and status.

Maya hieroglyphic writing is found on a variety of media. Inscriptions are carved or incised on freestanding stone monuments, primarily stelae (figure 2) and pedestals, which are often referred to as altars (figure 3), as well as on masonry architecture, especially lintels (figure 4) and wall panels (figure 5). Texts are also incised on portable objects of stone (figure 6), bone and shell, or painted on pottery and on screenfold bark paper books or codices. Because studies of Maya hieroglyphic writing originally focused on the codices, the content of which is primarily astronomical and divinatory, the historic nature of monumental texts was not generally recognized until thirty years ago.

The study of Maya hieroglyphic writing began soon after the Spanish Conquest in the sixteenth century, when Peter Martyr stated that, "The forms of their letters are nothing like unto ours. But are much more crooked and entangled, like unto fish hooks, knots, snares, stars, and such other...."¹ In 1566, Bishop Diego de Landa compiled his *Relación de las cosas de Yucatán*, a detailed history and description of the Maya of the Yucatán Peninsula.² His account, based on interviews with learned informants, includes an important description of the Maya calendar as well as a so-called alphabet which has proven useful to scholars as a rudimentary syllabary.

FIGURE 2

Naranjo Stela 24, which commemorates events in the life of Lady Six-Sky, a woman from Tikal who married a Naranjo ruler. (After Graham and von Ew 1975: 2:63)



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FIGURE 3

Caracol Altar 21, which documents a battle between the polities of Caracol, located in western Belize, and Tikal, located in northeastern Guatemala. (After Chase and Chase 1987: figure 27)

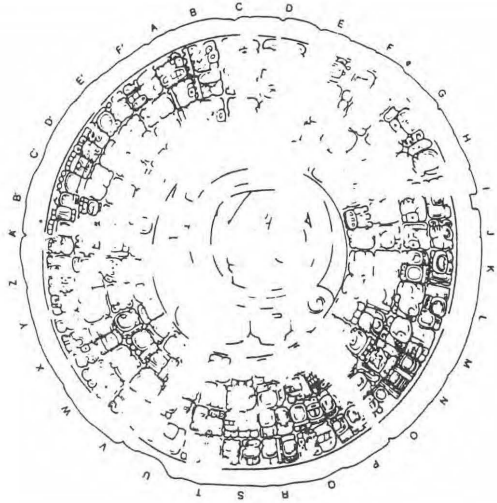




FIGURE 4

La Pasadita Lintel 2, depicting Bird Jaguar, a ruler from Yaxchilan, as the primary actor in a scattering rite commemorating the completion of a ten-year cycle. The figure on the right is the ruler of La Pasadita, a subordinate polity to Yaxchilan.

(After Schele and Miller 1986: figure III.4)

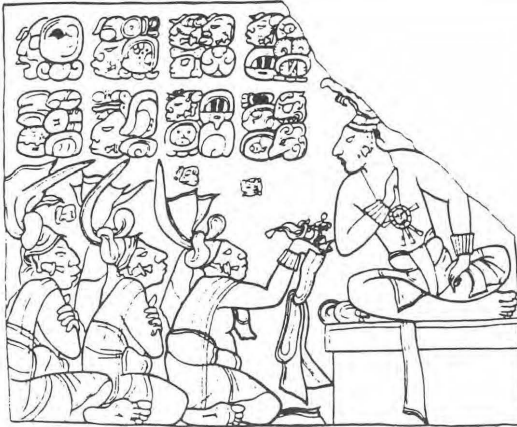


FIGURE 5

Bonampak Sculptured Stone 1, illustrating the accession to office of a ruler at that site.

(After Mathews 1980: figure 9)

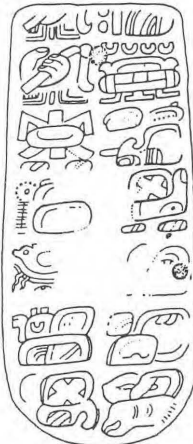


FIGURE 6

Greenstone Celt, Dumbarton Oaks, which contains an early Period Ending date.

(After Schele and Miller 1986: pl. 22c)

De Landa records that, "We found a large number of books...and as these contained...superstition and lies of the devil, we burned them all, which they regretted to an amazing degree." Fortunately, four codices survived destruction, among them the Dresden, Madrid and Paris Codices, named for the cities where they were found in the nineteenth century. The figbark paper of the screenfold books was coated with fine white lime and then painted with columns of glyphs and images of divinities, animals and other objects involved in ceremonies and rituals. The books, containing horoscopes and almanacs to assist priests in ceremonies and divinations, were then bound between decorated boards. The codices vary in length when completely unfolded: the Madrid Codex has 56 leaves (112 pages) and measures nearly 7m in length; the Dresden Codex has 39 leaves (78 pages) and it is 3.5 m long; and the fragmented Paris Codex has eleven surviving leaves (22 pages) and is 1.45 m long.³

A fragmentary fourth book, known as the Grolier Codex after the club in New York where it was first displayed, deals entirely with Venus almanacs. Fragments of disintegrated and highly eroded codices have also been found in a few Classic Period tombs, most recently in the excavations of a seventh century house in El Salvador.

The mid-nineteenth century explorations of an American traveler and a British architect, John Lloyd Stephens and Frederick Catherwood, brought Maya monumental inscriptions to the attention of scholars and the public alike.^{4,5} Stephens and Catherwood traveled throughout Mexico and Central America, and while Stephens wrote vivid narratives of their discoveries, Catherwood drew amazingly accurate depictions of the ornate architecture and intricate sculpture that the explorers encountered. Although Stephens expressed his belief that the monuments contained the histories of the sites he visited, scholars of Maya writing during the following century instead directed their energies towards elucidating the nature of the Maya calendar.

Between 1880 and 1905, the fundamental principles of the Maya calendar and vigesimal system of numeration were defined. Other scholars had catalogued the deities pictured in the codices and identified their glyphic names, deciphered the glyphs for colors and directions, and had suggested correlations for the Maya and Western calendars.

Explorations of the Maya Lowlands by Carnegie Institution archaeologist Sylvanus Morley during the early decades of the twentieth century greatly increased the corpus of Classic Period inscriptions.⁶ The

emphasis on calendrical matters in the codices was extended to monumental inscriptions, leading to the development of refined site chronologies.

The modern era of decipherment began in the late 1950s with the presentations by Heinrich Berlin and Tatiana Proskouriakoff of convincing evidence of the historical content of monumental inscriptions and with Yurii Knorozov's demonstration of phoneticism in Mayan glyphic texts.⁷ Berlin identified an important class of sign sequences that he called "emblem glyphs."⁸ The consistent representations of emblem glyphs in certain patterns of occurrence led him to conclude that they represented either the names of ruling dynasties or the names of the cities where they appeared. Most scholars now believe that emblem glyphs refer to polities or city-states larger than a single site or dynasty.

Proskouriakoff noted a regular pattern of dates on groups of monuments associated with architectural groups at the site of Piedras Negras.⁹ She found that the pattern of dates within monumental groups corresponded to the length of an average human life span, enabling her to demonstrate that recorded dates commemorated historical events in the lives of named rulers and their families. There is now no question that the primary content of monumental inscriptions concerns the histories of specific polities. Texts record the reigns of rulers, their political fortunes and genealogies, marriages, alliances and conflicts. The recognition of this historical information has significantly altered our understanding of Maya civilization, and detailed dynastic histories have been constructed for the major polities of the Maya realm.

A significant dynastic history was produced in 1973 by a group of scholars, including Linda Schele, Peter Mathews and Floyd Lounsbury at Palenque, situated along the western boundary of the Maya realm.¹⁰ The limestone at Palenque is ill-suited for columnar stelae but ideal for creating large wall panels, and these lengthy texts have been the source of one of the most extensive and elaborate dynastic histories produced in the Maya Lowlands. Scholars have been able to reconstruct not only the human history of the rulers at Palenque but have also gained insights into Maya concepts of the nature of divine kingship. The human actions of kings and queens and their relations and interactions with supernaturals and the cosmos are presented in literary and poetic detail at Palenque.

In 1952, Yurii Knorozov began publishing a series of studies that addressed the issue of phoneticism in the Maya script. Knorozov utilized the so-called alphabet documented by Bishop Diego de Landa in the sixteenth century. Landa, working with a native inform-

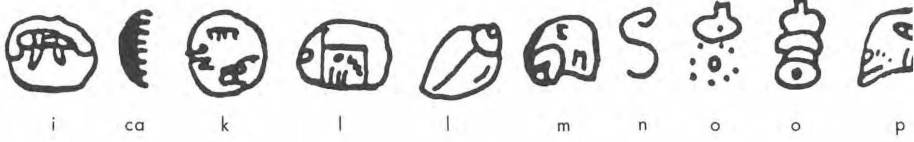
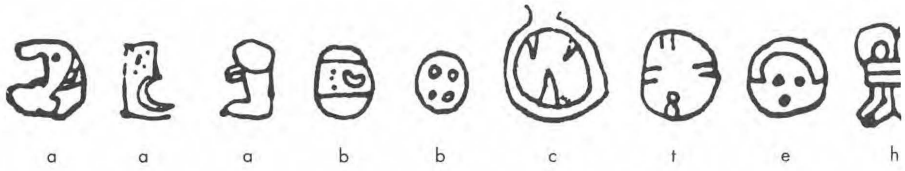


FIGURE 7
Landa's "syllabary,"
 illustrating the Maya signs
 for sounds corresponding
 to the Spanish alphabet.
 (After Pagden 1975: 125)

ant, had elicited Maya names for the sounds of the Spanish alphabet rather than a Maya alphabet. For example, for the sound of the Spanish letter *a*, Landa's informant produced the Maya sign for the word *ak*, which means 'turtle,' and is represented by a turtle's head. In other words, Landa unwittingly produced a partial Maya syllabary (figure 7). Knorozov also demonstrated that Maya words, frequently in the form of consonant-vowel-consonant, were produced syllabically by combining two consonant-vowel pairs. The final vowel, which often mirrors the initial vowel sound, according to Knorozov's principle of synharmony, is not pronounced.¹¹

Maya words can be written either phonetically, by combining consonant-vowel pairs, as demonstrated by Knorozov, or by representing words pictorially. For example, the name of the prominent Palenque ruler Pacal, whose name literally translates as "hand-shield", can be represented as either a picture of a shield or by combining the phonetic elements *pa-ka-la*. The same phonetic elements are found in the name of the ruler K'ak'upacal from Chichen Itza, located in the northern reaches of the Yucatan Peninsula (figure 8).

By combining the historic approach and linguistic methods, epigraphers have dramatically increased our understanding of the nature and content of Maya hieroglyphic writing. Floyd Lounsbury pioneered an approach utilizing paraphrased reconstructions that approximate the content of hieroglyphic texts in modern Maya languages. Lounsbury has subsequently identified couplet structures in verbal phrases and other syntactic structures.

Epigraphers generally agree that Maya hieroglyphic writing is a mixed logosyllabic script containing about eight hundred known signs. Many spellings are partially phonetic and many are purely logographic. Different glyphs may sometimes carry the same phonetic value, and a major task for epigraphers is to discover patterns of equivalence and substitution in the use of signs.

Hieroglyphs are classified by form and size as main signs or as affixes, which may be either pre-

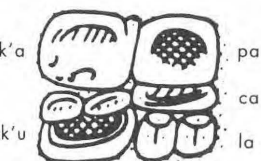


FIGURE 8

The name glyph of K'ak'upacal, a Late Classic Period ruler from Chichen Itza.
(After Houston 1989: figure 9)

fixes or postfixes. The typical reading order of a columnar text is left to right and top to bottom (*figure 9*). The syntax of the inscriptions mirrors that of spoken Maya, that is, intransitive constructions are represented by a verb-subject word order, and transitive constructions are typically represented by verb-object-subject constructions. Verbs are commonly preceded by calendrical statements. Proskouriakoff was able to identify the events depicted on the monuments at Piedras Negras and, later, at Yaxchilan, by identifying the consistent structural occurrence of certain glyph groups. The structural approach allowed Proskouriakoff to identify semantic interpretations of glyph groups without specifying a phonetic reading.

70 Important recurring events on the monuments of Maya rulers include birth, heir designation, accession to the throne, warfare, capture and the sacrifice of captives. Raiding and warfare were commonly tied to astronomical cycles, especially to the cycles of Venus and Jupiter.

Also documented in monumental inscriptions were personal acts of sacrifice by the ruler and his retinue, especially the ritual act of bloodletting performed on periodic occasions (*see, for example, figure 4*) and at such important events as accession to the throne. The final events of a ruler's life—his death, burial and apotheosis—were also occasionally recorded.

A proportionately large number of monumental texts consist of the ruler's name, titles and genealogy. In general, Classic Period monumental texts functioned to commemorate and legitimize the actions of rulers by expressing not only their links with their historical ancestors but also with their supernatural forebears. The complex calendrical system of the Maya was utilized to demonstrate the structural parallels of historic and mythological events in order to provide the ancestral and supernatural sanctions required for political authority.

The pace of decipherment has increased rapidly in the past decade because of the multidisciplinary contributions of art historians, linguists and archaeologists. Scholars are currently refining dynastic lists and clarifying relationships among rulers of contemporary sites as well as identifying subsidiary lords within various polities. Glyphic expressions of kinship relations are providing important insights into royal inheritance within a lineage as well as marriage alliances between polities.

The nature of pottery texts has recently been elucidated by a number of scholars in the United

States and Europe.^{12,13} The glyphic names of objects (such as plate, bowl, etc.) have been deciphered, as well as the names of the owners or patrons who commissioned the objects. The names of the individual scribes who painted the texts also may appear.¹⁴ A vessel from the site of Naranjo in northern Guatemala, for example, is signed by the son of the local ruler, indicating that the children of nobility were also skilled craftsmen.

The Maya also named their buildings and monuments: a stela may be referred to as a *tetun* or 'tree-stone,' and pyramids are equated with sacred hills. The Maya words for various jade ornaments, stone vessels, shell trumpets and other objects have also been recently deciphered.

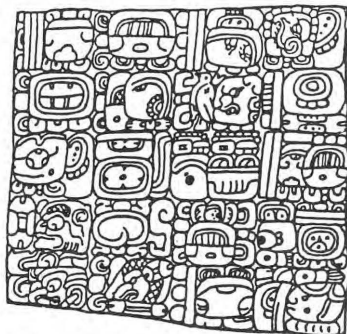
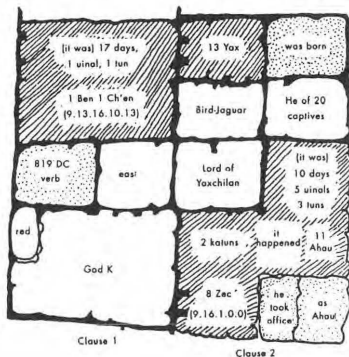


FIGURE 9

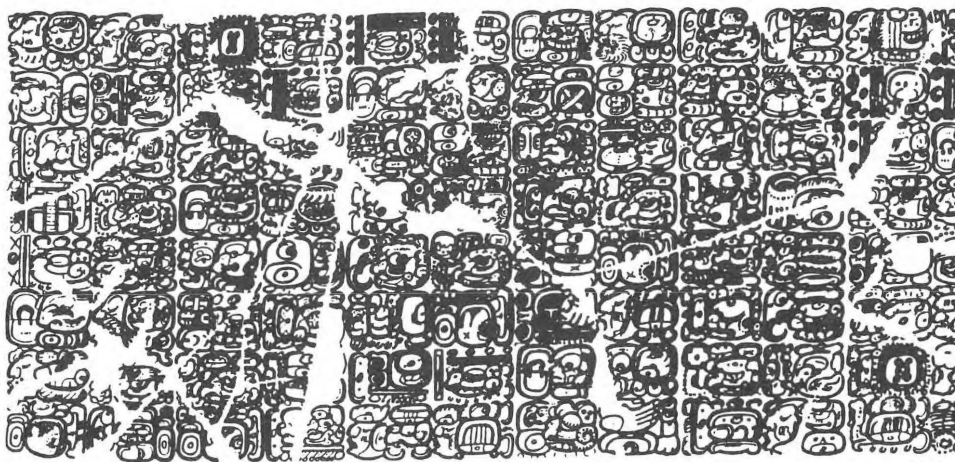
Yaxchilan Lintel 30, illustrating the reading order and syntactic structure of Mayan hieroglyphic texts. (After Schele 1989: 54)



Scholars have recently made comparisons of glyphic texts with ethnohistoric documents, such as the *Popol Vuh*, the creation myth of the Highland Maya Quiche people, and with post-conquest chronicles. These discourse analyses have led to a greater understanding of the literary devices utilized in glyphic texts, such as couplet structure and redundancy.¹⁵

Our understanding of Maya hieroglyphic writing and its role in representing Maya thought, culture and history has increased dramatically over the course of the past century. Calendrical studies were followed by historical analyses which in turn have benefited from linguistic methodologies. As our knowledge of the components of the Maya writing system increases, so too does our appreciation of the literary abilities of Maya scribes. The Tablet of the 96 Glyphs from Palenque, for example, exemplifies both visual and poetic beauty (*figure 10*). Like most monumental texts, the inscription relates dynastic history, yet the skill of the scribe is revealed not only in his outstanding calligraphy but also in his use of elegant metaphorical expressions for the passage of time.

Despite the progress that has been made, many inscriptions remain to be deciphered, and many texts contain glyphs whose meanings are understood, although their precise reading is unknown. Their silent stone monuments continue to challenge those who seek to learn about the world as perceived and recorded by the ancient Maya.



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FIGURE 10

Palenque Tablet of the 96 Glyphs, commemorating the first katun anniversary (equivalent to twenty years) or the accession of Bahlum K'uk.
(Drawing by Linda Schele)

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