

*Changing views of the changing maya: Evolution and devolution in an ancient society**

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PREFACE

The death (5 December 1985) of A. Ledyard Smith marked the end of an era in Maya archaeology. Ledyard was a tireless field worker and an able scholar. He encouraged and aided others, both to build on and to go beyond his own significant achievements. He thereby created an enthusiastic team of workers who have made major contributions to what we know about the ancient Maya.

This paper is dedicated to his memory.

INTRODUCTION

From the earliest reports of «lost cities» in the rain forests of Central America, the descriptions of carved texts and human figures on the impressive stone monuments were ranked alongside the huge stone temples as indicators that a great society had once held dominion over this inhospitable world. The publications of John Lloyd Stephens (1949) with the exotic drawings of Fredrick Catherwood (1844) allowed a fascinated nineteenth

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century audience to look back only a few hundred years at a civilization which was as great in its time as anything then known in Europe. But how it had survived for so long in that hostile tropical forest environment, and precisely when it had existed, and why it ceased to be, have been the foremost questions asked for the past 150 years. Answers to almost all of these questions were available immediately for everyone to see in the form of carved monuments and other texts — but no living person could understand them, until now.

For the first hundred years of Maya investigations — the Era of the Great Explorers — most of the efforts to know these ancient people were directed toward the discovery of the temples and large stone monuments by which we tend to characterize them. The discovery of the first series of these archaeological wonders soon became a vast number of identified sites as interest in the exploration of this region grew. The numbers of known sites continued to increase as the efforts to know more about these ancient people became a concern of the academic world, at the end of the 19th century (Maudsley 1989, Maler 1901, etc.). Even today the discovery of a new site of some importance is not impossible. The known towns and cities of these Classic Period Maya (250-900 A.C.) completely cover the maps of their homeland. Throughout the highlands of Chiapas in Mexico and the rugged zone of western Guatemala; throughout Yucatan, Peten, all of Belize, and into Honduras the ancient Maya created vast cities of stone. Without a single metal tool they crafted huge and complex buildings, worked jade and other gems, and carved monuments proclaiming to all literate people the deeds of their great leaders.

For over a century scholars focused on gathering these data, and recording (after a fashion) the inscriptions found at many of these rediscovered cities (e.g. Morley 1937; also see Becker 1985). These efforts generated basic information about these brilliant and artistic Maya, but the ancient texts remained a source of baffled concern. Not only were the stelae, erected in front of the major buildings and elsewhere at many of these sites, covered with complex texts, but at sites such as Copan the door jambs were found to bear texts. At other sites inscriptions appeared on buildings surfaces both inside and out (e.g., Tikal Temples VI and Copán Str. 10-L-18), on wooden door lintels (Tikal Temples I, IV, etc.), on stair risers (Str. 26 at Copan), on the backs of jade pendants such as that excavated by Peter Harrison (Tikal Burial 77 jade pendant), on bone splints such as found in Tikal Burial 116), on tomb walls (as in Tikal Burial 48) and painted or carved on all kinds of ceramic vessels.

These undeciphered texts, as the presence of immense temples at these sites, signalled the presence of a great civilization. How this was inferred by 19th century scholars and what became of these ancient people are both questions which will now be considered.

Although the written language of the Classic Period inhabitants of this region was recognized almost immediately as texts, their decipherment was

a long and arduous task. The decipherment followed a course largely independent of the archaeological work which continues to generate new examples. Even before the beginnings of real archaeology in the area (Danien 1985), these carvings were recognized as remnants of a written language. Quite early scholars recognized the simple bar and dot counting system used to record Maya dates and to measure time and other countables. Slowly an ability to recognize the maya calendric system came into focus, with the realization that a vigesimal number system was employed. Even more impressive was the central aspect of this system – the use of a placeholding zero. Long before Arabic mathematicians provided barbarian Europe with this concept the Maya had originated, perfected, and disseminated a fundamental and major concept of modern mathematics.

Soon after working out the Maya number system the early epigraphers recognized patterns in these texts which reflected celestial happenings. Working with astronomers to verify their inferences, these early students of Maya epigraphy identified lunar, solar, and planetary commentaries in these ancient texts. Soon these scholars realized that among the many accomplishments of the ancient Maya were their notable successes in understanding a heliocentric universe and working out methods for predicting solar and lunar eclipses. With the recent visit of Halley's Comet fresh in our minds it is interesting to note that the Maya must have observed this spectacular event. Although at present the earliest written record of a comet sighting is located in the Babylonian diaries for 234 B.C. (Stephenson 1985: 18), and many appear in Chinese accounts, the Maya must have seen and predicted the appearance of this comet long before the production of their earliest known carved monuments, and long before Edmund Halley (1656-1742) made *his* prediction for the European world. Surely the 8 passings of Halley's Comet during the Classic period, at 76 year intervals from 306 to 846 A.C., as well as earlier sightings, must be noted on some monument or in another of the Maya records.

Professor Hugh Harber (1973) has made an attempt to identify the Cross Legged glyph as a comet glyph (visitor from the heavens), and continues to work on this problem. Comet sightings, like the lunar and planetary cycles which the Maya knew so well, are important as demonstrations of 2 things. First, they reflect the continued expansion of the cognitive landscape to include more than just the terrestrial sphere. Second, the fact that people watch the sky and observe celestial events gains particular importance in the course of the development of political states. Some form of astrology appears to be essential in these systems, to prognosticate and foretell the fates of nobles as well as to understand the workings of the gods. That the Maya recorded these events, as well as the births and deaths of rulers (Kowalski 1985), reflects the development of a more complex political system, and the rise of Maya states (as also happened in China and Babylonia).

Certain Maya buildings (and perhaps building clusters. Becker 1971) in

conjunction with monuments have been suggested to have been astronomically oriented. Thus the E-Group complex at Uaxactun, just north of Tikal, incorporates elements long believed to have served such purposes (Ricketson 1937: Fig. 68). The west building in this group (E-VII) is a square temple-like structure. On its right side (facing east) is a low platform, similar to those commonly associated with the temples in Tikal Plaza Plan 2 (Becker 1971, in press A). Across the Plaza on the East side are 3 temples (E-I through E-III) on a low platform, with a series of monuments in front of it. Together these reflect astronomical activities at this site, with the translation of these events into an architectural alteration of the landscape.

The decipherment of the non-calendric and non-astronomical Maya texts took considerably longer. After nearly 50 years of efforts directed at the calculation of dates and astronomical events (e.g., Satterthwaite 1951) some amazing breakthroughs were made in the understanding of aspects of these documents not directly associated with mathematical data. In the 1950's H. Berlin (1958) recognized that the names of the Maya cities themselves appeared on these stone monuments. This important observation was made in the same year Knorozov (1958) made his first claims to a complete decipherment. We know that Knorozov (1967) simply did not have the correct interpretation of many of these texts (see Demarest 1976), but more cautious scholars were making true gains in this field. J. Eric S. Thompson (1959), resisting the entire approach put forth by Knorozov (perhaps still fearing a «Communist insurrection»: see Becker 1979), suggested some possible modes by which the problem could be attacked. But it was the brilliant Tatiana Proskouriakoff who published the ideas which were to revolutionize the studies of these texts (Proskouriakoff 1960, 1963, 1964). Proskouriakoff recognized the names of rulers of specific sites, their dates of birth, when they acceded to their respective «thrones», and even to identify human sacrifices which appear to be in association with these events. Suddenly, the vague figures appearing on these stone monuments became living people from out of Maya history: real people with a real past (see Jones 1985; Sharer 1985).

During the period when Proskouriakoff was producing her most important work, Thompson (1962) issued a full catalogue of Maya glyphs. This provided a useful tool for all scholars working with the decipherment problem. Thompson's contributions to Maya archaeology were enormous, and his efforts to organize and decipher the growing body of writings being discovered provided order as well as insight to these problems, but with Proskouriakoff's writings an entirely new phase of research in Maya epigraphy had begun.

THE THEORETICAL-PHILOSOPHICAL PROBLEM

The idea of evolution had permeated the intellectual atmosphere of the 19th century, and with in the entire development of a notion of «progress».

In archaeology the «ages of man» ideas of the 17th century were being confirmed by direct archaeological investigation. As early as 1806 the Danish government sponsored a research program to investigate the shell middens and dolmens within that nation (Harris 1968: 146). The materials collected by this program were deposited in the Museum of Northern Antiquities in Copenhagen, where C. J. Thomsen was soon to study them. In 1836 Thomsen published his famous work on the «evolutionary» sequences of stone-bronze-iron using actual archaeological data to validate them. Thomsen's student, J. J. A. Worsaae (see 1849), confirmed these ideas in the 1850's using stratigraphic techniques at other Danish sites. Evolutionary thought was in the air. With the publication of Charles Darwin's *Evolution of Species* in 1859 ideas about evolution became applied to all realms of natural and social history, and even linked popular historical and philosophical ideas relating to the concept of «progress».

In the 1840's, while Worsaae was decoding the archaeological evidence for culture change (evolution) in European prehistory, Stephens and Catherwood brought the long «lost» Maya cities to public attention as well. There in the tropical heart of Central America a great civilization had developed but had *not* evolved! What had happened to this society became the subject of great interest for over 100 years, and that study is what will now be discussed.

How did Europeans «know» that the Maya were «civilized?» Those characteristics which we take as identifying the Classic period of the ancient Maya are evident to even the most casual observer in the form of huge «ritual» buildings with vaulted roofs, elaborately carved stone monuments, and a system of writing which had its most clear representation on these monuments. If we examine the components we find that the clues to this evaluation are basically:

1. Technology in Architecture: Building size and vaulted constructions.
2. Technology in Stone: Ability to carve and to erect (move them).
3. Literacy: Technology in Language.

The ideas of evolution and progress were here «verified» by the achievements of these ancient Maya. Philosophically, however, their «demise» disrupted our ideas concerning straight line evolution which, teleologically, should have produced «bigger and better» examples of this technology. Our understanding of the processes of change have required that we, as observers, change the way in which we view these people and their society. The accumulation of the evidence has been essential to achieving a new perspective on this problem, and to that process we will now turn our attention.

DECIPHERING TEXTS & UNDERSTANDING THE PHYSICAL ORGANIZATION OF SITES

Perhaps the first obvious benefits of understanding the ancient Maya texts came in the form of a more clear understanding of Classic Maya society (see Sharer 1978). Although most scholars had early recognized the Classic Period as one in which city states existed (Becker 1979), our understanding of the socio-political details of Maya society during this epoch had been vague. Aside from the insightful efforts made by O. G. Ricketson (1937: Fig. 2) to determine the extents of houses around the ritual structures at Uaxactun, few people paid attention to Maya buildings in which the majority of the population lived. They were not enormous and therefore probably lacked ritual artifacts and rich burials.

Not until 1959 did a serious effort begin to study the residential areas of a major Maya city (Becker 1971; Haviland *et al.* 1985); the areas beyond the site center. With that project was Dr. Peter Harrison. With this evidence for settlement pattern at Tikal we had a new factor important in demonstrating that a city-state existed (or what we now call «state level» political organization). The heterogeneity among the many structures at Tikal, such as the differences between palatial residences and temples as was demonstrated by Dr. Harrison (1970), offered clear evidence for complexity of socio-political organization (Becker 1973, 1986). The architectural differentiation among small structures at Tikal, coupled with the presence of differences in the expression of the mortuary program, now were joined with the obvious use of a writing system to indicate that the traits associated with the Classic Period could be interpreted in new ways. Vaulted stone buildings, carved monuments, and the use of a writing system («Classic» traits) now were seen as reflections of a complex society. This kind of society, or political «state», has a designated ruler, social class stratification, trade, and even warfare intricately interrelated in ways far removed from the simple chiefdoms from which they came.

By 1960, even before we could interpret most of these texts, scholars had inferred that the figures represented on these huge carved monuments must be actual people —and not the gods or deities who were represented in pottery and elsewhere at Maya sites. Following Proskouriakoff's lead epigraphers began to locate name glyphs at various sites (Mathews and Schele 1974). Then, in a major breakthrough, Christopher Jones (1977) began to find links between these named people at Tikal to recognize a portion of the dynastic sequence at that site. Since then the list has been greatly to include the 13 kings who ruled during the period 300 to 870 A.D. Jones (1977) has shown that the dynastic succession at Tikal generally ran from father to son. The inauguration and marriage data which Jones has elicited not only shows that this inheritance by sons is the most common

form, but also shows that marriage ties between cities were very important. Ruling families tended to intermarry, so accession monuments, with the new ruler's genealogy on it, provides data on these marriages and the origins of the new ruler's parents. Also on these monuments are important historical facts and recountings of political events (Miller 1986) which help us to reconstruct the history of the entire region. Thus Tikal can be linked with cities as distant as Mirador, the huge and fabulous city at the northern edge of modern Guatemala. Mirador, which has an enormous Early Classic florescence, may be better understood through the decipherment of the texts on monuments found throughout the Maya realm.

These cities, like Italian city-states of the Renaissance, each had autonomy, and developed clearly marked boundaries which represented the limits of these realms. We now are in the process of determining those boundaries, and suspect that certain of the monuments at Copan may represent markers delineating the edges of that ancient city. However, in most cases field archaeology will be the only way in which we can verify our inferences as to how these polities were bounded, or demarcated in space. We know that the development of these states required the establishment of more clearly defined borders, further changing the conceptual landscape of the people now participating in a true state. The results of studies on the way boundaries are marked may reveal why these low level states failed to resist military incursions from the north during the end of the Classic period.

Carl Beetz (1980) has revealed some of the links in the dynastic chain at Caracol, identifying the rulers and their heirs by their birth glyphs. Working on the linguistic clues in these texts (Kubler 1973) and other aspects of these written languages (such as dialectical and regional variations) has given us an incredible ability to understand what is written in these Maya statements (Kelsey 1976; Schele 1982). Now site names, accession to power and human sacrifice, genealogical connections, and a host of other details are emerging from this written record. This research has progressed so far that the specialists can now recognize dialectical differences in the written texts and can identify foreign influences on the Maya language and its script (Justeson *et al.* 1985). The numbers of people now studying these texts is incredible, and guides for beginners are increasingly popular (e.g., Jones 1985b). But what is of interest to us here is to understand the meanings of these categories of evidence which led us to understand that a great culture once flourished in this area. Furthermore, we wish to understand what are the intellectual factors which lead us to be concerned with what became of this ancient society.

The glyphic texts have always shown us, by their very presence, that we are dealing with an historical population rather than a prehistoric and less accessible people. Our past inability to read these texts reduced potential for understanding the available evidence, and often inhibited the development of meaningful research strategies. Now we have moved far beyond the simple identification of name glyphs and have the ability to determine for

whom a specific funerary temple-pyramid was built. For example, Tikal Ruler A (AH-CA-CAO) died about 9.15.0.0.0. (781?) and is buried in Temple I (Jones 1977: 42-45). Now we can build on Jones' research to understand more complex interrelationships at sites such as Tikal. This allows us to explore the processes of change over time within Maya society. For example, beginning with Ruler A at Tikal ceremonial architecture was often oriented according to political considerations (Becker 1983a; Miller 1986). This relates to the idea that Temple I at Tikal was oriented in a pattern (Plaza Plan 2) which had long been used for residential shrines at the site, a point which has been made earlier (Becker 1983a). The use of this plan for a king's mortuary temple, defying or breaking with ancient traditions, reflects the elevated status of this particular ruler and changes in the idea of kingship at the site. Thus the reorganization of space, by introducing a new pattern of locating buildings, signals change taking place within this complex society. Understanding the dynamics of change among the Maya help us to understand not only what factors *led* to these changes within the period which we call «Classic» (Willey 1974; Becker 1983a) but also may allow us to determinate how the Maya of the Post-classic Period maintained cultural traditions up to and beyond contact with Europeans (see Becker 1986).

One of the important excavations at Tikal provided a sequence for development of the huge ritual complex called the North Acropolis (Coe 1977). This major architectural phenomenon, directly across the newly opened plaza from the «Central Acropolis» elite residential area, enables us to understand the other aspects of the site through stylistic cross dating. Where direct archaeological links can be demonstrated, the combination of information offers ideal circumstances for understanding some important aspects of the past.

Excavation date show that East Plaza and Great Plaza and North Terrace *all* were resurfaced at one time. Also part of this enormous project was the construction of the earliest version of the causeway which leads north out of the East Plaza and up to the «H» Group (Jones 1985: 49).

Jones also has demonstrated that the East Plaza ball court (Strs. 5D-42 and 5E-31) and the «shrine» building at the south edge of the East Plaza (Str. 5D-43) were contemporary with the major resurfacing described above. Built at the same time was the building identified at Str. 5D-32 on the southeastern portion of the North Acropolis. This mortuary temple covers Burial 195, an elaborate burial with many ornate vessels. Texts found on these vessels in Tomb 195 almost certainly confirm that the person buried here was «Animal Skull», believed to have been the 22nd ruler of Tikal. Other inscriptions at Tikal place the death date of this ball game loving ruler in the middle of the 7th century (Jones 1977).

Thus an elaborate chain of archaeological and epigraphic findings allow us to date the East Plaza ball court in the middle of the seventh century. How do we know that «Animal Skull» enjoyed Pok-ta-pok, as the game

(Stern 1950) was called? First, one can hardly doubt that only a very rare Maya would *not* have liked this sport. However, by chance George Guillemín, when he excavated Str. 5D-32 and Tomb 185 at Tikal, found within that tomb traces of a U-shaped wooden yoke believed to have been part of ball game equipment. With it, in the same silty tomb fill, Guillemín found what may be the remains of a rubber ball 16 cm (ca. 6 inches) in diameter (Jones 1985a: 49).

Although equipment and balls from the game may have been part of the tomb offerings interred with other elite (or anyone) at the site of Tikal and elsewhere throughout the region in which this ball game was played, we know of no other similar evidence. But far more important than these interesting findings in Tomb 185 are the texts written on the associated vessels. These texts permit us to identify the person in the tomb [who?], and give us the date for this period of enormous construction activity at Tikal. Coming at the end of a long hiatus in monument erection and building construction at Tikal (ca. 550-640 A.C.; see Willey 1974) this program of renovation and development is extremely important to the history of Tikal. Since this period (the Middle Classic) seems to have existed throughout the Maya area, and represents a period of political or «state» desintegration (Becker 1983a), our ability to date it and to describe activities associated with these times help us to understand more clearly the cultural processes involved in changes which occurred at a later date.

After the «hiatus», the revival of political power at Tikal may have begun with these major construction projects under the aegis of the king named «Animal Skull». How this period of revival developed into the Late Classic period at Tikal only now is beginning to be understood. We also know that the Late Classic did not have a long and sustained economic development, but rather a rapid spurt at the beginning followed by a gradual devolution leading into the Postclassic Period. During the Postclassic, when monuments were no longer erected and the ceremonial constructions of the past gave way to elaborate but decentralized residences, the political organization needed to sustain a «state» no longer existed.

Inscriptions show us that Tikal never became dominant over other city-states in the region (as Tenochtitlan came to dominate the Valley of Mexico and beyond). Perhaps the failure of the Lowland Maya city-states to develop more integrated political systems left them vulnerable to the military efforts of the more organized polities to the northwest. As Richard Adams (Ref.) had suggested many years ago, military incursions into the Lowland Maya region further destabilized those fragile polities which had developed.

Changing technology in the form of ocean going transport canoes led to the development of new trade routes between lower Central America and the Valley of Mexico. By 800 A.C. these routes, skirting the Yucatan peninsula, fed the wealth of the Caribbean into the rapidly developing city-states of Mexico (see Hodge 1984). The rise of these dynamic and powerful

states led to further economic expansion and, ultimately, political development elsewhere in the region (e.g., the Mixteca; see Spores 1985). By the time that the Spanish arrived it was the Aztec state that occupied the center of the vast tribute-giving network (but see also Hassig 1985).

The Maya Lowlands, an economically depressed zone, continued to be a source of exotic goods such as quetzal feathers and jaguar skins. The economics of the region, like cities in the heart of plantation country, never regained their productivity. Maya Chiefdoms, such as known from Yucatan (see Chase and Chase 1986: 26) were functioning right up into the seventeenth century, if not later. These polities, however, maintained only vestiges of the power and the glory of those states which produced the monuments and other written records of the high point of Maya political organization.

An international conference recently held in Spain focused on the period between the end of the Classic period and the arrival of Cortés (Rivera and Ciudad 1986), revealing how cultural continuities were sustained while political power was reduced. Exciting new ethnohistoric research such as the award winning *Maya Society Under Colonial Rule* by Nancy Farriss have set new standards of excellence in our use of written sources for this area in later periods.

Our teleological evolutionary perspectives have been broadened by this new information. We now see that the chiefdoms of the Maya area evolved into low level political states sometime around 100 A.C. By 250 A.C. the city-states of this region had developed their complex and interlocked network; and controlled a vast trading system throughout the region. Power is reflected in each city by the statements of its king—actually carved in stone—attesting to his, or her, right to rule by genealogical inheritance and celestial connections. Lists of the king's ancestors and other kin through marriage attest to the inherited rights to rule. Their control of wealth and power harnessed labour into the construction of enormous buildings, and often in the *removal* of great numbers of buildings to create open spaces for ceremonies and gatherings to express these new social forms. The clearing of huge spaces—such as the plazas at Tikal and Copan, are another aspect by which alterations in the landscape reflected the newly established power of these kings.

But trade routes change, and other powers grow, and the political organization which created these Maya cities declined. Monuments became smaller and more crudely carved, as can be seen by Stela 18 at Copan. By 800 A.C. huge new buildings could not be afforded, and small terraces and minor additions to existing structures became the rule, as can be seen in the series of small terraces added to Structure 10L-18 at Copan after the period when the building was erected (805 A.C.: see Becker and Chekk 1983). These limitations in monument erection as well as in building activity reflect the declining wealth available to these people during this period. The central areas of Maya cities became as abandoned as the downtown areas of some

major American cities, such as Detroit or Philadelphia, had become in the 1960's. The Maya of the Peten heartland, lacking the river systems to provide transportation, saw their cities decline into ghost towns, replaced by dozens of small villages each of which was led by a local chief. These chiefdoms were far reduced in power, and the chiefs could not create buildings on the same scale as the Lords of the Classics Period. Buildings which they could construct were far less impressive than those of the Classic period. The great monuments which proclaimed the POWER of the kings during the Classic Period simply were not needed by these local chiefs, who knew (and were related to) all the people in their villages. The old ways continued - the power has moved to other people in other places.

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