THE CODE OF KINGS

The Language of Seven Sacred Maya Temples and Tombs

LINDA SCHELE
AND PETER MATHEWS

PHOTOGRAPHS BY
MACDUFF EVERTON AND JUSTIN KERR

SCRIBNER
CHAPTER 1

Pyramid-Mountains and Plaza-Seas

Maya scholars have participated in a revolution. The past four decades have seen the decipherment of the Maya hieroglyphic writing system and the reading of the history of one of the great civilizations of the world. This decipherment has recovered the names of kings, their families, members of their courts, and artists, artisans, and builders who served them. Growing understanding of Maya imagery has combined with increasingly subtle decipherments of the glyphs to give us new insights into court life, religious ideas, and the politics of the time, as well as the economies and social mechanisms that allowed Maya civilization to flourish. Excavations conducted by archaeologists not only have tested the “truth” of these histories in the ground, but also have sought to understand better the lifeways of the ancient Maya people, from the most exalted to the lowliest members of society.

As epigraphers who have participated in this revolution, we find that our personal relationship to Maya cities has changed forever. We can’t now walk among the buildings without thinking about who built them and why. We now consider them not just as objects of beauty, but also as political and religious statements aimed at an audience of nobles and commoners. Maya buildings were instruments of state that registered Maya identity, religion, and history.

How different it is to walk through a ruined city when it has become a historical place—to “read” a building and to know who looks out from a sculpted portrait. The ruins cease to be anonymous places admired only for their beauty and mystery. Instead, they become the works of people who had names and motivations that we can understand, even from our distant points of view. And the buildings and images created by these once-living people become their voices, telling us something about the agendas that guided their decisions, the larger political framework that conditioned those agendas, and the understanding of the world that gave meaning to both.

We have shared our vision of Maya cities as historical places with people who
have toured with us over the years and in public lectures. When we were thinking about what to do in this book, we realized that many more people who visit Maya places and who love Maya art and archaeology might be interested in seeing their architecture through the lens of history. We wanted to show people how to “read” Maya political and religious art and architecture.

In designing this book, we deliberately picked some of the most famous buildings in Maya archaeology, partially because, famous though they are, they remain virtually anonymous to the people who visit them. Three are in Mexico, three in Guatemala, and one in Honduras, and we selected seven different kinds of buildings to serve as archetypes. These seven are a palace and family shrine center, a pyramid-temple and tomb, a plaza with stelae (upright, carved monuments), a building designed to celebrate the end of an important Maya cycle of time, a court for playing ball, a conjuring house and war monument, and, finally, a conquest period capital from the Guatemala highlands. Although there are other types of Maya buildings, these seven constitute the elements that the ancient Maya considered necessary to charge a city with religious and political meaning. Most cities had all these types of buildings, although their styles varied widely from place to place.

We have used the nuances of these buildings to explore the way Maya architecture worked and how the Maya generated sacred space within their cities through the use of buildings and the symbolic information contained in them. We have designed the book to operate on multiple levels. On one level, it serves as a guided tour through the buildings. Much of the information necessary to understand the layout and basic contents of each building can be gleaned from the maps and illustrations alone. We have included a map of each building with its components designated by letters or numbers. We have used the same designations as headings in the descriptive sections of the text. Readers can follow our suggested path through the building or they can go to any part of it by finding the section that corresponds to the letter on the building plan.

The texts discuss each building in progressively greater detail, moving from the general to the specific, so that readers can choose the amount of information they wish to consume and skip over the more detailed discussions when they so desire. The notes provide the scholarly background to our interpretations and add more detailed information to our discussions. We have also included a glossary of gods and supernaturals at the end of the book to serve as a quick reference for those who are less familiar with the Maya world.

MAYA SOCIETY IN TIME AND SPACE

The Maya lived in a large cultural area that archaeologists call Mesoamerica (Fig. 1.1). Encompassing the region from the deserts of northern Mexico to the eastern third of Honduras, it was composed of numerous city-states, each with its own character and history. The Maya are notable for their complex society, with large cities, sophisticated architecture, and a rich cultural heritage. The Maya believed in a number of gods and supernatural beings and had a complex religious system that included a belief in an underworld and a creation myth that was highly symbolic and metaphorical.

The Maya civilization flourished from the 2nd century AD to the 10th century AD, with a period of decline beginning in the 8th century AD and continuing until the 16th century AD. During this time, the Maya people developed a unique and advanced civilization that left a lasting legacy in the form of magnificent architecture, intricate art, and a highly developed writing system. The Maya also had a sophisticated calendar system, which allowed them to accurately predict solar and lunar phenomena, and a system of mathematics that included the concept of zero.

The Maya were skilled astronomers, and their calendar system was one of the most accurate in the ancient world. They used this knowledge to predict eclipses and other celestial events, which were often tied to religious and ceremonial activities. The Maya were also skilled at agriculture, and they developed a complex system of land use and irrigation that allowed them to support large populations.

The Maya were divided into different social classes, with a ruling class known as the nobility, which included priests, warriors, and other officials. The nobility were responsible for maintaining the social order and ensuring the continuity of the Maya civilization. They were also responsible for the construction of large ceremonial buildings, such as pyramids and temples, which were used for religious and ceremonial purposes.

The Maya were a peaceful people, and their civilization was characterized by a strong sense of community and cooperation. They were also a highly educated people, with a strong tradition of learning and scholarship. The Maya were skilled at writing, and they left behind a rich body of literature, including religious texts, history books, and other works of literature.

The Maya were also skilled at music and dance, and they had a rich tradition of performance art. They were also skilled at using mathematics and science to solve practical problems, such as calculating the seasons and predicting the movements of the stars.

The Maya were also skilled at using mathematics and science to solve practical problems, such as calculating the seasons and predicting the movements of the stars.
The Code of Kings
ern lowlands transforms into pine forest in the highlands and into low, scrub forest in the north.

Archaeologists divide the later history of Mesoamerica into three great periods—the Preclassic (1500 B.C.–A.D. 200), the Classic (A.D. 200–910), and the Postclassic (A.D. 910–1524). The first of these periods, the Preclassic, saw the rise of the Olmec, the first great civilization that modern scholars recognize in Mesoamerica. Occupying the swampy lowlands surrounding the Tuxtla volcanos in southern Veracruz, the Olmec built the first cities in a landscape that can be described the fin: symbolism real sense, t

By 1000 lands and l houses that used pole fi some region preferred re of three stor ing. The he did the wo where they many kinds

Househ with young lies provide involved ye: ing. Moreo and refurbis the preparat ized crafts in household c these produ services with tional house courtyard b

Like oth symbolic im cities in the traditional k ter and surr used tampec ble in the lo by the Maya ing above th as mountain: face them w sacred envir

Early kin ments erecte

16 Linda Schele and Peter Mathews
be described as mountains surrounded by swamps. This extraordinary people created the first kingdoms and developed the templates of worldview and political symbolism that formed the basis of all subsequent societies in Mesoamerica. In a real sense, they invented civilized life in this region of the world.

By 1000 B.C., the Maya had begun to build villages in the mountainous highlands and lowland forests of eastern Mesoamerica. These early villagers built houses that were much like those still used by their descendants today. They used pole frames and thatched roofs to construct houses with a single room. In some regions, villagers favored houses with oval floor plans, while in others they preferred rectangular forms. The center of the house was always a hearth made of three stones set in a triangle to allow wood to be fed into the fire while cooking. The hearth was the center of family life, where women prepared food and did the work of the household. Men worked in agricultural fields called col, where they planted maize, beans, squash, and chile. They planted fruit trees of many kinds around their houses and near their cornfields.

Households consisted of several related adults, and could include couples with young children, adolescents, young adults, and grandparents. Large families provided the people required for farming, a labor-intensive activity that involved yearly cycles of preparing the fields, planting, cultivating, and harvesting. Moreover, large families could help in other activities, such as the building and refurbishing of houses, kitchens, and storerooms, the collection of firewood, the preparation of food, and the repair and maintenance of tools. More specialized crafts included weaving and decorating cloth, the manufacture of tools and household objects of all sorts, and the making of pottery. The Maya could use these products in their own households or exchange them for other goods and services within their communities. As their families grew, villagers built additional houses around courtyards to form compounds. Four houses around a courtyard became one of the characteristic forms of Maya architecture.

Like other Mesoamerican peoples, the Maya adopted Olmec innovations in symbolic imagery and social institutions. By 500 B.C., the Maya began to build cities in the lowland forests and in the highland mountains. They amplified the traditional layout of the family compound into a square plaza surfaced with plaster and surrounded on three or four sides by pyramids with temples on top. They used tamped earth to build their pyramids in the highlands, and earth and rubble in the lowlands. Some of these very early structures are the largest ever built by the Maya. People flying over them today often think they are natural hills rising above the forest canopy. In fact, the ancients did conceive of their pyramids as mountains rising out of the surrounding swamps and forest. They began to surface them with imagery modeled in plaster to give them meaning and to create sacred environments in which history, politics, and urban life unfolded.

Early kings, called ahau, also began to portray themselves on stone monuments erected in the plazas at the feet of their pyramid-mountains. During the
last third of the Preclassic period, the idea of writing developed as a way of describing who was shown on these monuments, as well as when and where the actions occurred. This was the beginning of history for the Maya.

During the Classic period (A.D. 200–910), the number of kingdoms grew rapidly, to as many as sixty at the height of lowland Maya civilization in the eighth century. Beginning in the fifth century, these kingdoms organized themselves into great alliances headed by the kingdoms known today as Tikal and Kalak’mul. Some of the great cities of the Preclassic period, such as El Mirador, had collapsed, while others, like Tikal, grew into political and economic dominance. The Maya of Tikal and other cities came into powerful contact with the central Mexican city of Teotihuacan during the early part of the Classic period. The mechanism of this exchange is still a matter of debate, but its effect is not. The Maya adopted imagery and an artistic style from the Teotihuacanos that became intimately associated with warfare and the symbolism of the “Place of Reeds,” one of the central elements in myths of origin that dominated Mesoamerican history.

While the Maya kingdoms enjoyed a high degree of sovereignty, their political fortunes often depended on the alliances to which they belonged. From the sixth century onward, this system of alliances and the rivalry between them dominated Maya politics and economics. The old adage “The enemy of my enemy is my friend” is highly applicable to this period of Maya history.

Ancient Maya kings rarely alluded explicitly to economic affairs in their public inscriptions. However, we can surmise much about ancient Maya economy through the archaeological record, the images, and the inscriptions left to us. Tribute was one of the primary means to collect goods and labor for redistribution within communities of all sizes. It was a fact of life, rather like our own taxation system. Lesser nobles and lineage heads paid tribute to their overlords in the form of raw materials, manufactured goods, and labor. Farmers might also pay tribute through goods they produced, but even more likely, they paid by providing labor on building projects in the urban centers, service on the farms of their kings and lords, or in military service. The economy of every kingdom was administered strategically by the king and his court, but even they paid tribute to their overlords within the large system of alliances. At this higher level, tribute could also be paid in the form of raw materials, such as minerals, wood, and sacred stone; manufactured goods, such as cloth and jewelry; labor for regional projects, such as the construction of causeways between sites; and military service.

Victory in battle often resulted in the loser’s obligation to pay tribute to the winner. This could include goods and service, but in addition, artists and artisans, as well as laborers and captured soldiers from losing sites, could become commodities that benefited the winners. In some situations, the local elites retained their positions after defeat, but they became tribute vassals of the winners.

The Maya calendar provided dates that were used to time markets and fairs in which the Maya carried out their business transactions. Some of these dates had

well-known that everye level, and c well. These from allied negotiate b

Merchan
tonic and ful god who be set up i

chants. S

involved in

metaph of neighbo
could funct

or they cou

The May

money. Th

ian, in both spondylus (weave and r

animal pelt both worke elite wares.
munities as crops and h or in special

People tr

ing to displ in wide den traded the t their feather commoditie from far-dis

in, for exam trade agree

Mexico. The nomi well-

cessful activ among their goods to the
s a way of
where the
doms grew
the eighth
elves into
mul. Some
passed, while
ya of Tikal
ity of Teoti-
mated with
elements in
their politi-
From the
seen them
my of my
y.
their pub-
us. Trib-
the form
ay tribute
providing
their kings
administr-
to their
ure could
and sacred
projects,
vice.
ute to the
artisans, some
some retai-
ners.
and fairs in
tates had
well-known, widely shared significance from Maya mythology and religion, so
that everyone knew about them. Others had importance on a regional or local
level; and could involve not only religion, but important dynastic celebrations as
well. These festivals were a major part of Maya life throughout history. Nobles
from allied kingdoms used them as opportunities to visit one another and to
negotiate broader economic arrangements.

Merchants operating beyond the borders of their kingdoms became eco-
nomic and political extensions of their kings. Their patron was God L, a powerful
god who destroyed the previous Creation by flood, sat on the first throne to
be set up in the present Creation, and operated as a god of warriors and mer-
chants. Such royal business was so economically vital that the merchants
involved in it were high nobles and even members of the royal household. Using
the metaphor of pilgrimage and alliance, merchants traveled to the great festivals
of neighbors and distant states that controlled strategic goods. Such merchants
could function as state ambassadors bearing “gifts” to royal neighbors and allies,
or they could spy out the land in preparation for conquest.

The Maya used commodities both in their raw state and as worked objects for
money. These currencies included jade and other green stones; flint and obsid-
ian, in both worked and unworked forms; other precious stones and minerals;
spondylus (spiny oyster) shells; cacao beans; lengths of cotton cloth, both in plain
weave and made into clothes; spices; measures of sea salt; birds and their feathers;
animal pelts; forest products such as dyes, resins, incense, and rubber; wood in
both worked and unworked form; and ceramics, especially beautifully painted
elite wares. People at all levels of society used these currencies within their communities as well as in the markets and fairs. Farmers and villagers could use their
yields and handicrafts to barter for or buy other goods for use in their daily lives
or in special rituals, such as marriages, funerals, and house dedications.

People throughout Mesoamerica wore these currencies as jewelry and clothing
to display the wealth and enterprise of their families. These currencies were
in wide demand throughout the Mesoamerican world, so that Maya kingdoms
trading the specialties of their area—such as cotton, cacao, tropical birds and
their feathers, rubber, special woods, shells, etc.—over long distances to obtain
commodities that were not available locally. This access to materials and goods
from far-distant places may have been negotiated by local lords, but the alliance
structures very probably facilitated these international relations with kingdoms
in, for example, the southern highlands of Guatemala. We suspect that Tikal had
trade agreements and perhaps a political alliance with Teotihuacan in central
Mexico. These long-distance relationships were of crucial importance to the eco-
nomic well-being of every state. Maya kings gathered prestige through the suc-
cessful activity of obtaining goods from distant places and distributing them
among their vassal lords and allies. These lesser lords in turn distributed the
goods to their constituents in the form of gifts or exchanges. A portion of these
commodities could filter down into the general everyday transactions of the villagers and farmers.

One result of the competition for territory, resources, and tribute was a cataclysmic series of wars between the competing alliances led by Tikal and Kalak'mul that began in the sixth century. In the archaeology, kingdoms that won wars during these conflicts show enormous growth in population, in wealth at all social levels, in access to foreign goods, and in extensive building programs. Losers usually show the reverse, but being a winner or loser was rarely permanent. Reversals of fortunes and the resulting change in economic status were commonplace.

By A.D. 700, these wars had resulted in the multiple sackings of major cities like Palenque and Tikal. One of the major effects of these wars was a series of migrations, probably consisting in large part of male nobles and soldiers displaced by the wars or seeking their fortunes elsewhere. A series of migrations from the south to the northern lowlands eventually led to the founding of Chich'en Itza. In A.D. 800, these outsiders, who were called the Itza, and the older kingdoms in the north established a confederation. These migrations may also have affected central Mexico and the establishment of kingdoms like Xochicalco and Cacaxtla in the wake of Teotihuacan's destruction in the mid-seventh century.

The Classic period ended with a general political collapse in much of the Maya region, although in some areas, such as northern Belize and Yukatan, many communities survived without a break until modern times. The final phase of precloribnian history—the Postclassic—lasted from A.D. 910 until the Spanish conquests of Guatemala in 1524 and Yukatan in 1542. Events during the last decades of the Classic period became the legends of origin for Postclassic kingdoms. In the north after the collapse of Chich'en Itza, the area was dominated by an alliance centered on the city of Mayapan. Although the population of the southern lowlands never again achieved the levels of the Classic period, large alliances centered on Itzamk'anak and Tayasal, the capital of the Itza, endured into the century after the conquest. In the south, the K'iche' Maya forged an empire by conquest and diplomacy that dominated most of the highlands until late in the fifteenth century. Although the capital cities of these empires and kingdoms may seem unimpressive when compared to the great Classic cities, these Postclassic kingdoms exercised political and economic dominance that was at least as effective as that of their predecessors.

**Maya Hieroglyphic Writing and History**

During the nineteenth century, travelers began to penetrate the forests that had regrown over the ancient ruins after the Spanish conquest. They brought back intriguing tales of lost cities and ruined temples. These travelers published drawings and photographs (Fig. 1.3) in books, some of which became bestsellers of

their day. By the end of the nineteenth century, millions of pilgrims and explorers had visited the ruins of Palenque, one of the most famous sites. Because its buildings and structures still stand, Palenque has played an important role in early explorations and research. The city's history and its influence on the surrounding region are well documented, and its ancient arts and architecture continue to inspire scholars and visitors alike.

Peter and Linda, two of the early explorers, were instrumental in uncovering the lost history of Palenque. Their research and discoveries have led to a deeper understanding of the site's cultural significance and its role in the broader context of Maya civilization. Their work has contributed significantly to the field of Maya studies, highlighting the importance of preserving and learning from these ancient ruins.
was a cata-
Kalachmul
was during all social
Losers usu-
t. Reversals
place.

major cities
series of

s displaced
from the
ch'en Itza.

The final
0 until the
ats during
Postclassic
was domi-
period,
the Itza,
the Maya
the high-
the great

g of the

Fig. 1.3. A photograph
of the palace and the
Temple of Inscriptions
at Palenque taken by
Alfred Maudslay in
1891. This is what
Maya architecture
looks like before it is
cleaned and

their day. By the end of the century, scientific expeditions began to excavate the
ancient buildings and restore them to something of their former glory. Today
millions of pilgrims from all over the world come to see these restored Maya
cities and to understand at least a little about the people who built them.

Palenque, one of the most beautiful of the ancient Maya cities, was a focus of
these early explorers from the beginning of modern interest in the Maya.
Because its buildings, sculptures, and inscriptions survived remarkably intact,
Palenque has played a central role in our thinking about the Maya for the past
150 years.

Peter and Linda also fell under Palenque's spell when we first walked among
its plazas and temples. Even though Palenque had been so central to European
ideas about the Maya, it was still an anonymous place when we attended the
First Palenque Round Table, a now-famous 1973 conference that led to critical
breakthroughs in the understanding of the city's history. Before this conference,
the ruins were mute, more admired for their mystery than for the greatness of
the people who had built them. In less than a week all that changed.

We remember the moment it all happened. We had been working together
during the conference, but on the last day we were asked to see if we could find
some more history in Palenque's hieroglyphic texts. We were lucky because
drawings had been published of the many inscriptions the people of Palenque
had put in their buildings. In three hours, we amplified our understanding of
the lives of seven kings, so that a real history of Palenque began to emerge. More important, we connected these kings to the buildings they had commissioned and the messages incorporated in them.

In many ways, this conference was a turning point in the field of Maya hieroglyphic studies. Using the work of past scholars, we had available to us knowledge of how the Maya used their glyphs to spell words. We also knew they recorded history as their main subject matter, and we knew they used the writing system to record spoken language, not just as mnemonic devices. Working with many other people, we began to paraphrase whole texts from Palenque and construct an understanding of what the rulers of that city had said to their people in their public monuments.

The rich and expressive script used by the Maya in their writing system could faithfully record every nuance of sound, meaning, and grammatical structure in their language. Scribes could spell words with single signs called logographs, with phonetic signs representing syllables, or with combinations of both. For example, witz, a Maya word for “mountain,” could be written with a picture of a con- voluted stone or personified as a mountain monster (Fig. 1.4). However, the Maya had other words meaning “hill” or “mountain,” including punk, mul, buk’ton, and tsek. To avoid confusion, Maya scribes attached syllabic signs to logographs in order to indicate how to pronounce them. For example, they could attach the syllabic sign wi to the front of the “mountain” logograph, giving the spelling wi-witz. Since no other word for “mountain” began with wi, people knew that here they should read witz, instead of any of the other alternatives. Since these phonetic signs represented the sounds of syllables, the Maya could spell the word using only phonetic signs, thus eliminating the logograph altogether. The system they devised used two syllable signs to spell a word composed of a consonant-vowel-consonant. For example, they spelled witz with the sign wi combined with tzi to form wi-tzi. The final vowel in this kind of spelling was not pronounced.

The unsurpassed calligraphic elegance of this writing system derives from its origins as a painted script. No matter the medium they used—whether limestone, jade, shell, bone, wood, or paper—Maya scribes never lost the original paintery grace of their hieroglyphs. They played with the graphics of the system, always looking for new and innovative ways to write their words. They had many signs to record the same sounds, and each of these could be written in a plain form or personified as a human or animal. Maya scribes used this system to record the history of their leaders, the names and ownership of objects, the names and actions of gods and supernaturals, the rituals that filled their lives, divination and prophecy, and their understanding of the ancestral past and present. Most particularly for this book, they recorded the names of their buildings, as well as who owned them, and the rituals used to dedicate them.

MAYA AR

Experiencing the most p:
spacess are ti
dark interior
and a few a
courtyards,
were at the
buildings to
sets in which
Maya kir
from capital
Maya lived
ments. Add
to the c
to a hundred
Decipher-
tions at plac
better under-
tions (Fig. 1
landscape, a
names. Kin
Tikal had th
dom did not
periphery, li
central kings
The town
names and w
example, the
tal city was l
west of Laka
rulers who Palenque kin
All Maya
Sometimes w
ial zones. Of
entrance into
the pattern o
"mat," was o
MAYA ARCHITECTURE

Experiencing Maya architecture can be disconcerting for people who grew up with the European tradition all around them. European architecture focuses for the most part on interior space. In Maya public architecture, the operational spaces are the plazas and courtyards that are surrounded by buildings. The small, dark interiors, especially of the temples, were places where the gods, ancestors, and a few authorized lords visited. Even in the palaces, the public stayed in the courtyards, where they were the audience for the dances and processions that were at the heart of Maya rituals and festivals. Maya architects designed their buildings to encompass motion and performance so that they operated like stage sets in which drama and ritual unfolded.

Maya kingdoms consisted of forests, farmlands, hamlets, and towns, all ruled from capital cities. Using settlement surveys, archaeologists have shown that the Maya lived in and around their cities and towns in dense and permanent settlements. Adding the population living in the hinterlands and smaller towns to that of the capitals gives population numbers ranging from twenty thousand up to a hundred thousand, and perhaps more for the largest kingdoms.

Decipherments of the Maya hieroglyphic texts and archaeological investigations at places like Tikal, Copan, Caracol, and Dos Pilas have given us a much better understanding of how Maya political geography worked. In the inscriptions (Fig. 1.5), “emblem” glyphs named the kingdoms that dotted the political landscape, and within these kingdoms there were locations identified by place names. Kingdoms were also subdivided into “provinces,” or tsuk. For example, Tikal had thirteen tsuk, while Naranjo had seven. The geographic size of a kingdom did not necessarily correspond to its importance. Younger kingdoms on the periphery, like Palenque and Copan, were geographically larger than the older central kingdoms, but they certainly were not more powerful.

The towns and hamlets surrounding the capital cities could have different names and were often ruled by secondary nobles obligated to the high kings. For example, the texts call the kingdom of Palenque Bâk, or “Bone,” while the capital city was known as Lakam Ha, “Big Water.” Tortuguero, a large town to the west of Lakam Ha, also used the Bâk kingdom name, although it had its own rulers who conducted their own wars, probably under the authority of the Palenque king.

All Maya cities, including the towns, had sacred precincts near the center. Sometimes walls surrounded these areas to separate them from adjacent residential zones. Often a causeway, called a sak beh, or “white road,” led from outlying areas into these centers. At Copan, the Maya erected a special stela to mark the entrance into their sacred precinct. This monument presents a text arranged in the pattern of a mat (pop in Maya) to people arriving on the sak beh. Popol, or “mat,” was one of the words used for “a place of assembly,” “community,” and
It happened at the Bearded Jaguar God sky seat.

This is a Tikal toponym.

"Emblem" glyphs and toponyms from various sites.

"Holy Tikal Lord"

"K'awil Tikal Man"

"in the seat of Muul"

"Lukum Haa K'an Khan"

"Big Water Sky Seat"

the capital of Tikal

"13 provinces, Mental place"

"Xaajil Kak K'awil"
acknowledged their subordination to their ruling lords and the preeminence of the capital, but we cannot always distinguish lords from kings by imagery alone. We have to have written titles and statements of affiliation to be able to distinguish between the various ranks. However, location is often a clue, because these secondary lords mounted their inscriptions in spaces that were accessible only to lineage members. The audience for their art was not the public at large, as it was for royal messages. Archaeologists at Copan have detected at least four different categories of size and complexity among these lineage compounds, while work at Caracol and Tikal has shown that the secondary nobles, even those of very low rank, had access to wealth and exotic goods in times of prosperity.

The buildings that housed the common people are much harder to detect and count for population estimates because archaeologists often cannot find them without excavation. They often have only low surface mounds to mark their position and a good proportion of them are “invisible” until excavated. Nevertheless, such humble dwellings, the nonroyal compounds, and hamlets and small towns have received concentrated attention from archaeologists over the last thirty years. Their work shows us that in many ways this kind of housing has not changed during the last four thousand years.

Xanil nah, “thatched house,” is the name that modern Yukatek Maya call the houses used by ordinary villagers and farmers (Fig. 1.6). The Maya built these

Fig. 1.6. A xanil nah, or “thatched house.”
houses on platforms raised only slightly above ground level. Four posts carried the roof beams, while stick walls enclosed a single room. Sometimes the Maya used mud and plaster to finish the walls, but they could also leave the walls open for ventilation. The high-pitched roof consisted of palm thatch tied to a framework lashed to the main beams.

The xanil nah very probably provided the template from which specialized architecture for political and religious ritual developed, as the Maya evolved more complex social and political organization. The Maya made their royal houses out of stone, but they replicated this basic pattern. Corbeled vaults and interior beams reproduced the triangular interior space of the house frame and thatched roof. People slept and worked on benches built into the sides or backs of rooms, and the interiors remained small and dark. With both royal and commoner houses, the working space with the best light was in the courtyards.

In modern Maya communities, all parts of the house have special terms associated with them, usually likening them to parts of the human body. Houses were and are living beings to the Maya. We do not have the ancient names for house parts, but in their dedication rituals, the Maya of olden times placed offerings under the floors of the houses and temples. These offerings contained materials identified with k'ulel, the living soul-force that imbuies the universe. Thus, in dedicating a building, the Maya gave it a soul.

Baskets and net bags suspended from the roof beams kept food safe from pests and left most of the interior space free for daily use. While the modern Maya of Yucatan sleep in hammocks, their ancestors appear to have used mats on benches of various sorts. Women prepared maize and other foods for the family at the three-stone hearth and they dug into its center to bury the umbilics of their children. Even today, many Maya ask where you are from with the question, "Where is your umbilicus buried?"

The Maya added other thatched structures, xanil nah, to form compounds around courtyards in order to accommodate growing families. Throughout postconquest times, family compounds usually had an ancestral shrine or an altar of some kind, although the way these things were arranged varied from town to town. There is good reason to suppose that these shrines and family altars have always been a part of Maya residential architecture from earliest times.

Early villagers used xanil nah for public buildings also, but they often made them larger and raised them on higher platforms. In time, this raised building became the terraced, pyramidal platform with a temple on top. The terraces served as a place for dancing and ritual performances of all sorts for audiences located in the courtyards below. Both temple-pyramids and temple groups on top of individual pyramids could be clustered to form groups. The most sacred and ancient of these arrangements was the triangular form that echoed the three stones of the Cosmic Hearth constructed by the gods to center the world. Four-sided arrangements generated the square, the other form that the Maya tied to Creation. Ti itzab, kan xu cosmos. The "Raised-up! altar or a tree form with a researcher's think sign for k'e.

Several of residential places. The North A while the Cer buildings had with towerin multiple courts.

The more from stone, fi paintings that the spaces th that played a space and tim identities of s controlled at placed close a enhance the et

SITE AND B

If the Maya ha names or titles made by mast designing a sthap the stone older men who rate buildings speci rated in the orientation, the world, religiou and laying out were called ab i. The most accoi
Creation. The square, in fact, resulted when the creator gods arranged the kan tzuk, kan xuk, "the four sides, the four corners," to give shape and order to the cosmos. The gods then raised the great center tree called the Wakab-Kan, the "Raised-up Sky." Maya repeated these world-making activities by placing an altar or a tree in the center of the four-cornered, four-sided plaza. The resulting form with its four corners and a center is called a "quincunx" by modern researchers. This quincunx symbol of the cosmos also appeared in inscriptions as the sign for beh, "road."

Several of these courts could be joined together on top of platforms to create residential palaces, administrative compounds, and acropolises of various sorts. The North Acropolis at Tikal consisted of religious buildings and royal shrines, while the Central Acropolis was residential and administrative. Usually religious buildings had between one and three rooms and emphasized the vertical axis with towering roofcombs. Residential and administrative buildings often had multiple courts, many rooms opening onto the courts, and a horizontal axis.

The more important architecture was larger than domestic buildings, built from stone, finished with plaster, and decorated with passages of sculpture and paintings that signaled their function to the people using them or coming into the spaces they addressed. Buildings and spaces also reproduced sacred places that played a role in Creation, so that rituals conducted in them remade the space and time of Creation in elaborate public dramas. The Maya signaled these identities of sacred place and function through sculptural compositions. They controlled access, funneled movement, used architecture as backdrops, and placed close attention to vistas in order to integrate architectural space and to enhance the effect of drama.

SITE AND BUILDING PLANNING

If the Maya had "professional" architects, we have not been able to identify their names or titles in the inscriptions. Maya structures were more likely to have been made by master builders, rather than by architects who separated the task of designing a structure from actually building it. Vernacular buildings and perhaps the stone houses of the lower ranks could be designed and supervised by older men who had experience in building, but the construction of more elaborate buildings in the sacred centers and in elite compounds was overseen by specialists in the arts of building construction and decoration. Since building orientation, shape, and proportion reflected the geometry and time of the sacred world, religious and craft specialists were also involved, not only in designing and laying out the building, but also in dedicating it. Some of these specialists were called ab uwaal, "sculptor," ab tz'ib, "scribe," and ab yul, "polisher" (Fig. 1.7). The most accomplished of them carried the title itz'at, "learned one" or "sage."
As in other Maya arts, builders valued subtle and refined execution of these sacred activities more than they did individual creativity and novel results. Traditional and conventional definitions of space and form were powerful elements in Maya aesthetics. They provided a language of meaning that oriented the Maya to everything in their world.

No tax or labor records have survived to identify the workmen who labored on the great public buildings. However, we have other hints about how construction projects worked. Archaeologists consistently find thin walls creating "construction pens" inside pyramids, and often neighboring pens have different fill materials. These pens have been found under courts and plazas, so that they may have served as much to organize labor as to provide containing walls inside a construction. A likely system would have been to assign a certain number of pens to different lineages, who would then be responsible for finding the fill and bringing it to the pens. Each lineage would have fed its own people and perhaps contributed additional food and materials to the main construction project. People in these lineages owed labor to their own lords, just as their lords owed labor to their overlords. Presumably every lineage in a kingdom contributed to great public projects in this way.

These public building projects also required specialized labor. Laying out a new building required knowledge of construction techniques and materials, but also of sacred lore needed to orient the building correctly and tie it to its predecessors. Much of the physical labor of construction, like quarrying and shaping the stone, mixing mortar, leveling courses and floors, setting lintels, etc., did not require special training. Knowledgeable supervision would have been enough. But specialists were needed to incorporate decorations and sculptures into buildings. By looking at ancient Maya buildings, we can surmise other kinds of specializations, such as artists to plan the composition and apply the guide draw-
ings; stone carvers to prepare armatures and relief sculptures; wall plasterers and sculptors specialized in plaster modeling; wood sculptors for carved lintels; and finally, painters for the complex polychrome painting of reliefs and for murals of various kinds.

These specialists, including the master builders, must have had other people working for them to help in preparing materials and in executing less critical parts of a work. However, we do not know if these skilled laborers operated within a lineage system or were organized in groups like guilds. We do know that the best of the craftsmen and artists traveled around their kingdoms to work on different projects, because we have their names on artworks from the towns as well as in the capitals. In addition, the Maya gave artworks by master artists as gifts and received them in tribute.

Access to finished buildings was controlled according to the function and meaning of the architecture. People of all ranks and affiliations visited the public plazas to participate in the great festivals, dances, dramas, and public rituals. If those rituals were anything like Maya festivals today, they would have gone on for days, with people coming in, leaving, and rejoining the ritual as their status and roles demanded. Markets would have been associated with these festivals, as well as pilgrimages and visits between both friendly and enemy states.

The courtyards within religious and administrative compounds would have been more restricted, but not by signs saying “no entry.” Instead, the Maya controlled access and channeled movement by the use of stairways, constricted or blind entrances, causeways, and other devices that were part of the spatial design of their buildings. People learned from their earliest days where they were allowed to go and where they were not.

A full range of activities took place in residential compounds, including lineage festivals, administrative overseeing, manufacture, gathering of tribute, adjudications, child rearing, food preparation, and a hundred other enterprises. Residential compounds would have been noisy places. At Copan these stone constructions lie side by side, sometimes with only narrow alleyways between. With children, turkeys, many adults, and activities of all kinds, the noise levels must have rivaled those at the modern town of Copan, with its buses and boom boxes. Rooms were small and dark with stone benches for sleeping and working. Weaving and other kinds of activities took place outside in the courtyards, perhaps using awnings to keep off the sun.11

The temples would have been the most restricted space of all. The gods and ancestors resided there in special locations called lib nabo, “underground house,” jumul, “conjuring place,” kum, “seats,” and waybil, “resting place.” Only kings, lords, and specialists responsible for the care and feeding of the gods would have mounted the pyramid-mountains to enter these inner sanctums. These places of the gods and ancestors were too dangerous to be entered casually by people who were unprepared.
ARCHITECTURE AND ITS ELEMENTS

As the Maya developed hierarchical social structures, they, like other societies around the world, developed myths and metaphors to explain how the world came to be what it is, and why stratification was the natural order of things. In the process, they began constructing large public buildings that transmitted these myths and legends through sculptural programs and the rituals associated with them. Their symbolism publicly confirmed the divine sanction of their social order and declared the origins of their institutions. This transformation began around 600 B.C., and by 400 B.C. the Maya regularly decorated their great public buildings with programs of sculptural and painted imagery. Very early platforms at sites like Copan and Kahal Pech were built of clay or adobe painted red and with thatched-roofed structures on top. At most sites, buildings with earth and rubble cores replaced these clay platforms by the Early Classic period, but Copan continued to use them in sacred and residential architecture until at least A.D. 550.  

Rubble-core buildings became the rule in lowland architecture because clay platforms were difficult to maintain in areas with heavy tropical rainfall. The ratio between earth and stone in the rubble cores varied from site to site and from building to building. However, the stability of these cores depended less on the amount of stone than on the way they were laid. Wet fill made for a compressed and very stable matrix, while dry fill tended to be unstable even in pre-Columbian times. Today, dry fill poses severe excavation problems for archaeologists.

Masonry walls differed from site to site depending on the local material available to the builders. For example, Palenque's masons used a limestone that came out of the quarries in large natural slabs that required little shaping. They laid these rough stones in courses using a lime mortar, and then smoothed the final wall surfaces by applying thick plaster. Maya buildings also had sculpture modeled in plaster over stone armatures. Builders used this technique throughout most of Chiapas, Peten, and Belize, and in southern Quintana Roo and Kampeche, although the quality of the limestone differed from region to region.

In the early history of Copan, builders also employed these plaster techniques, but they used volcanic tuff and river cobbles instead of limestone inside their rubble cores. Some of the best preserved plaster sculptures from Classic-period architecture lie under the acropolis of Copan. However, sometime during the seventh century, builders in Copan changed to a new technique using well-dressed blocks to lay a smooth wall that required only a thin finishing layer of plaster. They also converted from modeled-plaster sculpture on terraces and entablatures to stone-mosaic sculpture of great refinement. Their problem may have lain in the use of mud without lime for mortar in buildings throughout the valley. This technique and the use of beam and mortar roofs required very thick layers of plaster (up to seven inches) to seal horizontal surfaces against the rain. Copan's buildings required continuous maintenance of these seals, because as
water penetrated bearing walls, it dissolved the mud mortar, and the buildings collapsed. Since plaster was the most expensive material used in Maya architecture,\textsuperscript{13} Copan's builders apparently developed techniques to conserve as much of it as possible for the sealing layers.

The cost of plaster may or may not have influenced architectural technique in the northern lowlands, including much of the modern states of Campeche, Quintana Roo, and Yucatan. The limestone there is inferior to the stone found farther south. As in the south, builders used modeled plaster in Preclassic and Early Classic buildings, but changed to rubble core--veneer techniques during the Late Classic period. However, these northern builders surfaced their cores with thin, finely cut veneer stones. In the Ch'tenes area in Campeche, builders developed mosaic-stone sculptures much in the tradition of the Copan style to create gigantic images of mountain and sky monsters that wrapped around the doors of buildings. In the Puuk region and at Chich'en Itza, the Maya brought this mosaic technique to its most refined expression.

Maya builders used several types of plans, including a single room or gallery, double galleries entered either from a single side or from both sides of the center wall, and multiple galleries. Long galleries could be subdivided into rooms by nonbearing curtain walls, although at Palenque they sometimes left these long galleries open.

In palace or administrative structures, the Maya created complex patterns of space not by constructing buildings with a great many rooms, but by assembling discrete buildings around open spaces. At Palenque, artists decorated each facade to carry messages to the court space in front of it. The internal coherence of a building was less important than the effectiveness of each facade as a dispenser of political and religious information. Over time, various sites and regions developed their own strategies for presenting this kind of information, as well as conventions of style and preferences for materials for individual and group buildings, so that architectural style became a recognizable ethnic and community marker.

The Maya spanned interior rooms of their buildings in four ways (Fig. 1.8):

1. The corbeled vault was the most elaborate and prestigious way to create interior space. To make it, the masons built vertical bearing walls to a height where they intended to construct the vault. Then they brought successive courses closer together until the gap at the top could be closed with a capstone. It is a simple technique that did not result in a self-supporting structural system. This construction method first appeared in tombs and then expanded to public architecture.

Corbeled vaults can achieve great height, but each wall is independently balanced. If the angle of the corbel becomes too oblique, the vault will fall. As a result, Maya buildings have high but very narrow rooms characterized by the triangular space of the corbeled vault span. Normally each side of the corbeled vault balanced independently, but Palenque's masons learned to angle the outer walls of a double gallery so that they leaned against the central wall. The result-
Fig. 1.8. Construction techniques used in ancient Maya buildings.

...ing roof contour looks a little like a mansard roof. At other Maya sites, any of the corbeled walls could be left standing when a building collapsed, but at Palenque, only the center walls survived the collapse of a building.

The ratio between vault span and wall thickness varied considerably in the different traditions that developed. In central Peten, the span-to-wall ratio was very low, and in temples it was often negative. In other words, the walls were thicker than the width of the rooms they created. This dominance of wall mass is most extreme in the temples of Tikal, where the doorways provided the largest interior space in the temple buildings.

The builders of Palenque used their leaning corbels and cross-vaulting to achieve one of the highest span-to-wall ratios in Maya architecture. By reducing the outer bearing walls to piers standing between large doors, they let in more light and created airier buildings than any other Maya site. Uxmal's buildings are also famous for their wide spans and thin walls, but they used only one door per room, thus creating dark chambers like the ones in Peten architecture.
2. Beam-and-mortar roofs were made by using wooden beams to span the bearing walls. Thin poles were laid across them, and the entire construction was then filled with a thick layer of plaster. At Copan, we have seen remnants of this kind of beam-and-mortar roof over a foot thick. They were heavy, and if water got inside they could be very dangerous. This kind of roof was used primarily in the Copan Valley and in northern Yukatan.

3. Columns and beams were used as part of roofing and wall systems in the northern lowlands, although one example is known from Tikal. In the past, this system has been taken as a Toltec (central Mexican) trait, but builders in southern Quintana Roo and Campeche had started using columns to support doorways during the Early Classic period. The builders of Chich'en Itza took the technology far beyond its limited use of earlier times to create huge colonnaded halls covered by thatched roofs or corbeled vaults.

4. Thatched roofs were the preferred form for commoner houses, although thatch was also used to roof many public buildings throughout the Classic period. At first glance, thatch would seem to be the cheapest of all roofing systems, but this may not always have been true. Today dense populations and deforestation make palm thatching an extremely expensive commodity. The same was probably true in the Late Classic period. Burning the towns of enemies may have had far more devastating consequences than we might first imagine.

Builders extended the heights of public buildings, especially temples, by adding parapets and extensions called roofcombs (Fig. 1.9). These differed in structure and style from region to region. At Tikal and other central Peten sites, the roofcombs were massive and often larger than the buildings that supported them. They were vaulted to reduce their enormous weight, and they were built over the thick rear and center bearing walls of the temple. Their backs were usually plain, but the fronts carried deep relief images signaling the meaning of the building. The roofcomb of Tikal Temple 1 displayed a huge image of a seated lord, probably the king Hasaw-Kan-Kawil, who built it. Temple 6 had a long

---

**Fig. 1.9. Roofcombs of various styles.**

- Tikal and central Peten roofcombs
- Centrally placed roofcombs of Yaxchilan and Palenque
- Parapets and central roofcomb from Chich'en Itza
inscription discussing Tikal's history and its patron gods all the way back to Olmec times.

The builders of most of the kingdoms along the Usumacinta River and in Chiapas preferred a style using lighter roofcombs. At Palenque, they almost became lattice frameworks of stone that supported larger-than-life-size figures modeled fully in the round using plaster over stone armatures. Yaxchilan and Piedras Negras used more solid forms, and they also centered the roofcomb.

Copan's builders chose yet another alternative. They used silhouetted forms cut from stone and mounted along the edge of the building like a parapet. In addition to edging stones, Temple 22A also had a large stone sculpture representing the king seated on a jaguar throne mounted on top of the roof. Once again, Copan seems to prefigure Puuk-style architecture of northern Yukatan. In that style, builders mounted parapets above the outer edges of the roof to extend the space of the frieze. Roofcombs could also sit along the central axis of the building in some of the Yukatek traditions.

These regional and local styles of architecture developed in part because of the kinds of materials available to builders. But perhaps they were more the result of a Maya worldview that included powerful veneration of ancestors so that builders strove to reproduce the character of ancestral buildings as they physically incorporated them inside their own constructions. Particularly effective, and usually long-lived, rulers often left legacies of art and architecture that were emulated by subsequent generations. Thus, individual rulers could have powerful effects on style through their patronage of the arts. Moreover, Maya builders evoked prestigious styles of neighbors or distant places as statements of origin or affiliation. In Maya art, style could be political.

Maintenance was a problem in all these roofing styles. Thatched roofs lasted for only ten to fifteen years and they host a lot of pests. All of the stone roofs had to be kept waterproof with plaster seals. The large public buildings, especially those with plaster sculptures, presented constant maintenance problems, as modern archaeologists have found. The plaster surfaces had to be patched, renewed, and repainted regularly. The building called Rosalila at Copan has taught us that maintaining plaster sculptures reached a point of diminishing returns that eventually made it easier or even necessary to start all over again. Apparently in the case of that building, the Maya thought it a better solution to encase the old building and rebuild on top of it.

**Architectural Symmetry**

In our own careers, we learned about the subtleties of Maya architecture by focusing on Palenque. In measuring the buildings we realized that the parts were proportional to one another, but we could not find a consistent pattern to the

proportional observed symmetry student their architects.

The Maya was some body me from hand to say, twenty or their measured size, such build. Then the diagonals are et of the gods when, and the country—the module.

Once they fit side, then stretch a rectangle (Fig. "golden mean," It permeates n Powell told us the houses like flow.

Architecture ple and palace weavers used it to lay out the

- Its four sid
- Its four ax
- Its measure
- Its four st
- Its double
- Its stretch
- Its womb
- Its womb
- Four side
- Four corn

As Powell say created a "golden discoveries is th:
proportional system or a fundamental measure. Other people after us have observed symmetries in Maya art and tried to explain them, but it took a graduate student named Christopher Powell to figure out how the Maya designed their architecture and controlled its proportions.15

The Maya artists’ measuring device was a simple cord cut to a multiple of some body measure—such as the distance from the fingertips to the shoulder or from hand to hand across outstretched arms. Today the Maya count multiples—say, twenty or forty—of this fundamental measure to get the overall length of their measuring cords. Using the cord, they first lay out a square of predetermined size, such as 3 x 3 or 5 x 5, depending on the size of what they want to build. Then they use the cord to square up the angles by making sure that both diagonals are equal. This measuring of the square with a cord was the first action of the gods when they created the cosmos. The square gave four sides, four corners, and the center. As Powell says, it is the fundamental shape of Maya geometry—the module from which all Creation was generated.

Once they form a square, the builders halve the cord to find the center of a side, then stretch the cord up to a corner, swinging down to create the baseline of a rectangle (Fig. 1.10). This rectangle has the famous proportion known as the “golden mean,” which is found in art around the world and throughout history. It permeates nature in the growth patterns of creatures like the nautilus shell. Powell told us that his Yukatek teachers told him that using the cord makes their houses like flowers because of the inherent relationship of their proportions.

Architecture from thatched-roof houses of farmers to the most exalted temples and palaces used the cord to generate a harmonious whole. Sculptors and weavers used the device to proportion their compositions, and corn farmers used it to lay out their fields. The gods used it to lay out the cosmos:

\[
\begin{align*}
\text{Its four sides (or sections) } & \quad U \text{ kaj tewwuxik} \\
\text{Its four cornerings } & \quad U \text{ kaj xuknumaxik} \\
\text{Its measurements } & \quad \text{Retaxik} \\
\text{Its four stakings } & \quad U \text{ kaj cheexik} \\
\text{Its doubling-over cord measurement } & \quad \underline{U \text{ mej kamaaxik}} \\
\text{Its stretching cord measurement } & \quad U \text{ yuq kamaaxik} \\
\text{Its womb sky } & \quad U \text{ paat kaj} \\
\text{Its womb earth } & \quad U \text{ paa uleew} \\
\text{Four sides } & \quad \text{Kaj tewwux} \\
\text{Four corners as it is said } & \quad \text{Kaj xuknum chuch'axik}\end{align*}
\]

As Powell says, the center four lines in this passage describe the way the Maya created a “golden-mean” rectangle. To us the most revealing thing about Powell’s discoveries is that this way of measuring things and the proportionality it natu-
rally generates does not require special knowledge, like abstract geometry, to use it. The cord gave a harmonious proportionality to everything the Maya did in their art and architecture, and it joined their human-made art to the symmetries that permeate the natural world. To create the harmonies of the cosmos, the gods used the same method of measure as a weaver, house builder, and cornfield maker. But cord measuring also revealed the innate symmetries of nature, so that in reality, Maya art and daily life harmonized with cosmic symmetry without the necessity of conscious design.

**MYTHS OF CREATION AND ORIGIN**

The Maya and other Mesoamericans often designed their sacred centers to reproduce the structures from the myths that were central to their ideology. For the Maya, two of these myths were of particular importance: the story of Creation, which explained how the world came to have its present form, and the story of the origin of civilized life and the birth of their patron gods. Since these myths are so central to the physical forms that Maya cities took, we will give a brief synopsis of them here.

Our knowledge of the Maya story of Creation comes from two sources: the Popol Vuh, a seventeenth-century book recording the history of the K'iche' Maya, and inscriptions and imagery from the Classic period. The story involves the activities of the Twin Maize Gods and their family in the Third Creation. When playing ball one day, the Maize Gods disturbed the lords of Xibalba, the Maya underworld. The Xibalbans summoned the Maize Gods to the underworld to answer for their misbehavior, subjected them to a series of trials, and killed them when they failed. The Xibalbans buried the Maize Gods in the Ballcourt of Xibalba, after taking the head of the older twin and hanging it in a gourd tree next to the ballcourt, as a lesson to anyone who might tempt the wrath of the Lords of Xibalba. Ignoring the warning, the daughter of a Xibalban lord went to visit the skull, which spoke to her. The skull spat in her hand and made her pregnant. After escaping from Xibalba, she gave birth to a second set of boys, called the Hero Twins, who were themselves summoned to Xibalba after they found their fathers' ballplaying equipment. They also had made too much noise with their exuberant play, but unlike their forebears, they were not fooled by the Xibalbans' tricks.

After a long series of confrontations through ballgames, the Hero Twins, called Hun-Ahaw and Yax-Balam in the Classic period, defeated the Lords of Death and resurrected their fathers from the ballcourt. Reborn as infants, the Maize Gods grew quickly into adulthood to be dressed in their full glory by goddesses. With dwarf helpers, they woke up three old gods. We call two of them the Paddler Gods, because they paddled the Maize Gods to the place of Cre-
metrical, to use Maya did in symmetries the cosmos, the and cornfield structure, so that without the

1 centers to theology. For ety of Cre- the Maya, and the Since these will give a

tories the K'iche' story involves d Creation.ibalba, the the under- trials, and in the Bal- ting it in a tempt the Xibalban t hand and second set ibalba after too much not fooled ero Twins, the Lords of infants, the holy by god- ro of them ace of Cre-

ation. The third oldest, God L, the patron of merchants and warriors, destroyed the Third Creation by a great flood.

When the Maize Gods arrived at the place of the new Creation, they sprang up from a crack in the back of a Cosmic Turtle. The Maya saw this turtle as the three stars that we call Orion's Belt, and they also saw the crack in the turtle's back as the ballcourt. Once reborn, the Maize Gods directed four old gods to set up the first Hearth of Creation to center the new order. This hearth consisted of three throne stones—one in the form of a jaguar that was set up by the Paddlers at a place called Na-Ho-Kan, “First-Five-Sky” or “House-Five-Sky”; the second in the form of a snake that was set up on the earth by an unknown god; and the third, a crocodile or shark monster that was set up in the sea by Itzamna, the First Sorcerer. The Maya saw this hearth as the triangle of stars below Orion's Belt, with the Orion Nebula as the fire. Today we call these stars Alnitak, Saiph, and Rigel. The gods set up this hearth on 13.0.0.0.0 4 Ahau 8 Kumku, or August 13, 3114 B.C.

Five hundred and forty-two days later, the Maize Gods completed the structure of this, the Fourth Creation, by setting up the four sides and corners of the cosmos and erecting the center tree. The Maya called this tree Wakah-Kan, or “Raised-up Sky.” They visualized it as a great ceiba tree in flower, because February 5, the day when it was erected, falls into the flowering season of that great sacred tree. But they also saw the tree as the Milky Way arching across the sky with its roots on the southern horizon and its branches to the north.

The raising of this tree created the space in which we all live in this, the Fourth Creation. But the gods were not done. On the day, the Maize Gods spun the heart of the sky in the motion used by weavers spinning thread. This spinning corresponds to the motion of the constellations around the north pivot of the sky. This motion is the basis of all time perception for human beings, so that the gods gave symmetry and order to both space and time by their action in erecting the tree and setting out the four corners and four sides of the cosmos.

The second myth, concerning the beginning of civilization, comes to us primarily from Aztec sources, although the myth was known in various forms throughout Mesoamerica. This myth involves Snake Mountain and the Place of Reeds, or Coatepec and Tollan, as the Aztec called them. There are several versions of these stories in central Mexican sources. The myth concerns the migrations of the Aztec to the place where they would establish their state and capital city. Along the way, they came to Coatepec (Snake Mountain), near Tollan (Place of Cattail Reeds). In one version of the story, the Aztec built a temple on top of Snake Mountain for their patron god Huiztilopochtli. Huiztilopochtli then built a ballcourt at the base of the mountain, and in the center he placed a hole, called an Iszompam, or “Skull Place.” Under his directions, the Aztec partially dammed up the hole to create what was called the “Well of Water.” They cultivated plants in and around the hole, which was filled with freshwater crea-
tures of all sorts. From this well, sweet water formed a lake and made the sur-
rounding landscape fertile.

In one version of the myth, a faction of the migrants, the Four-Hundred Southerners (Centzon Huitzilohuati), decided they wanted to stay in this fine new home to create Mexico, instead of continuing in their migrations. This angered Huitzilopochtli, who came down from his mountain armed for war. He surrounded the Four-Hundred Southerners and their older sister, a goddess named Coyolxauhqui, who is identified in this version of the myth as the mother of Huitzilopochtli. The Four-Hundred were his uncles. In the ballcourt, he killed Coyolxauhqui by decapitation, then destroyed the Four-Hundred and ate their hearts. He destroyed the dam in the Well of Water and it dried up, forcing the terrified Aztec to resume their journey.

In an alternative version, the Aztec found Coatllicue, the mother of Huitzilopochtli, living on Coatepec. When she became miraculously pregnant, her other children, Coyolxauhqui and the Four-Hundred Southerners, decided to kill their mother for her presumed transgression. Coatllicue gave birth to a fully adult Huitzilopochtli armed with his shield and spears. After hacking up Coyolxauhqui and throwing her down the mountain, he destroyed the Four-
Hundred Southerners and forced the Aztec out of Coatepec.

The Aztec generated important archetypes from this myth: the deaths of Coyolxauhqui and the Four-Hundred Southerners provided the archetype for war and sacrifice, and Coatepec provided the archetype for how to create the sacred precinct of a city. However, the Aztec did not invent this myth. They reworked it from far older stories of origin. We have Snake Mountains at Teotihuacan, Xochicalco, Tula, El Tajin, Chich'en Itza, Tikal, Waxakluun, Cerros, and other sites beginning as early as 150 B.C. Many of these Snake Mountains have ballcourts adjacent to them. The particular gods of the Aztec myth—Huitzilopochtli, Coatllicue, and Coyolxauhqui—were particular to their version of the story, but all Mesoamerican cities had their own gods who were born at their version of this place of origin. And while the names of the gods and the details of the myth changed through time and space, the core function of the myth to create archetypes for building sacred centers and for conducting war was valid for everyone.

The other myth of origin concerns the Place of Cattail Reeds—Tollan to the Aztec. In their migration story, the Aztec also stopped at Tollan, which was near Coatepec. The Aztec described the Toltecs, the inhabitants of Tollan, as great sages who had invented the calendar, divination, astronomy, the arts, writing, medicine, monumental architecture, the institutions of government, agriculture, money, and all things civilized. They discovered jade and obsidian, and they found turquoise. They were especially pious and they were rich. According to the Aztec, they were the ancestors of all the people who spoke properly. For the Aztec that meant speakers of Nahua languages. In the rest of Mesoamer-
ica, the "proper" language was locally defined.

The Aztec but also as a terrrainal, Tenochtitlan they used the land, but also

For many of Tollan or Tlaloc corresponded offered an alt
terior period referre.
Moreover, the image of Snail from the Pri
kings. This is
Mesoamerican centurin. The quest legends, the Classic period do not think.
We know that
Mexicas, and Wauil with snakes ensid. The fam
from the stair
Mountains before.

If both the replicas of the saw as the inv
both? In fact, if

Olmec cour
Mountain per
landscapes of
Mountains in
pair of parallel
suggested that
ery of rubber balls, the game with ass
sunken courts and

Moreover, the
perfect natural
Mountains rise
The Aztec used Tollan not only as a reference to this legendary place of origin, but also as a general term for “city.” They used Tollan to refer to their own capital, Tenochtitlan, to Tula in Hidalgo, to Teotihuacan, and to Cholula. Moreover, they used the term Toltec to refer to the original inhabitants of the legendary Tollan, but also to artisans and artists.

For many years, Mesoamerican scholars argued fiercely over the identification of Tollan or Tula. By the 1950s, the majority had come to the consensus that it corresponded to the archaeological site of Tula, Hidalgo.21 David Stuart has offered an alternative identification by showing that the Maya of the Classic period referred to Teotihuacan as Puh, the Maya word for “Cattail Reed.” Moreover, the Pyramid of the Feathered Serpent at Teotihuacan is a powerful image of Snake Mountain. It has multiple images of feathered snakes emerging from the Primordial Sea carrying the headdress, eyerings, and nose ornament of kings. This building became the equivalent of the Parthenon or Pantheon to Mesoamericans as they reproduced it over and over again for the next twelve centuries. The people of Teotihuacan may have been the “Toltecs” of postconquest legends. To us, Stuart’s discovery represents primary written evidence from the Classic period that Teotihuacan was a Tollan, “Place of Reeds.” However, we do not think it was the only one, nor the first one.22

We know that during the Preclassic period, the Maya at several sites, such as Cerros and Waxaklum, built pyramids that carried the image of mountain monsters with snakes emerging from their mouths or penetrating their heads from side to side. The famous Temple E-VII-sub at Waxaklum has snake heads emerging from the stair balustrades on all four sides.23 The Maya built all of these Snake Mountains before the Teotihuacanos constructed their great temples and pyramids.

If both the early Maya and the people of Teotihuacan built their cities to be replicas of the Place of Reeds and Snake Mountain, who were the people they saw as the inventors of civilized life? Was there a great civilization older than both? In fact, there was—the Olmec.

Olmec country fits the description of the Place of Cattail Reeds and Snake Mountain perfectly. The Olmec built their cities on high areas in the swampy landscapes of the Gulf Coast of Veracruz and Tabasco. They built pyramid-mounds in the core of their towns, and at sites like La Venta, they placed a pair of parallel buildings at the base of their artificial mountain. Kent Reilly has suggested that these parallel buildings were ballcourts, and certainly the discovery of rubber balls at El Matatán24 shows beyond a doubt that the Olmec played the ballgame. All Olmec sites have channeled water and many sites have sunken courts with associated water iconography. At La Venta, this channeling and the sunken court are next to the ballcourt.

Moreover, the Tuxtlal Mountains with their volcanoes and Lake Catemaco are the perfect natural model for the Place of Reeds and Snake Mountain. These volcanic mountains rise precipitously from the encircling swamps and the three highest vol-
canoes surround a huge crater lake called Catemaco. In a crevice leading into the crater of the tallest volcano, San Martín Pajapan, explorers found an Olmec statue of a deity raising a tree, and on Tenaspi Island in Lake Catemaco, there was a sculpture of an egg with a human face emerging from its side. The statues depict the Olmec equivalents of raising the World Tree and the birth of humanity. The Olmec clearly thought of this mountain and the lake at its base as places of Creation.

The Olmec invented many of the symbols and institutions that remained at the heart of political and religious authority for the rest of Mesoamerican history. Most specifically, the symbolism of the ruler for both the Teotihuacanos and the Maya derived directly from royal imagery of the Olmec. If civilized life really was invented in the Gulf Coast swamps, then that topography was the model for the Place of Reeds, and the Tuxtlas were the first Snake Mountains. Thus, Puh/To-lolan as a city in a reed-laden swamp and the Ab Puh/To-ltec as the people who invented the arts and institutions of the state were very ancient concepts indeed.

These two myths provided archetypal symbolism that the Maya and other Mesoamerican peoples used to create the sacred centers of their cities and to charge their buildings with the energy and symmetry generated during these mythic times. For Mesoamericans, history, ritual, and governance unfolded within these charged environments.

**Symbolism of Architecture and Its Sculpture**

Unlike the European tradition of architecture, the Maya did not build their structures with the primary aim of creating interior space. Instead public architecture functioned like a gigantic stage set to serve as the backdrop for huge processional rituals, dances, and public dramas. The small interior spaces held gods and ancestral images housed in special places called *pib nah*, “underground structure,” *kun*, “seat,” or *wayb'il*, “resting place” (Fig. 1.11). At Palenque, the *pib nah* are small buildings inside larger temples. They are also marked as *Izam Nah*, “sorcery house,” by stucco *Izam-Ye* birds modeled across their entablatures.

Maya builders placed modeled-plaster or carved-stone sculpture on pyramid terraces, stairways, stair balustrades, building platforms, vertical bearing walls, doorjambs, door lintels, various moldings, the entablatures, and finally the roofcomb (Fig. 1.12). Different kingdoms favored different areas for displaying sculpture, so that distinct stylistic traditions developed in local and regional ways. Moreover, the design of the building also determined where and how the Maya presented their imagery. When they built frontal buildings, they usually concentrated on the surfaces facing inward to the audience. In these buildings the designs on the entablature often addressed all four sides, while all other imagery, such as on the roofcomb or terraces, faced the court.

Radial buildings, on the other hand, had stairways ascending all four sides of
ing into the Olmec, there was an Olmec art tradition that depicted nature. The art of Creation was emitted at can history, and the really was a model for the Pueblo/Toltec people who paid tribute instead of receiving tribute. We charged their architectural structures with gods and spirits, "pib nah" are "sorcery"
pyramid ring walls, y the roofdisplaying d regional d how the they usually buildings, a, other ur sides of

Fig. 1.11. Conjuring houses and inner sanctums.

Fig. 1.12. A hypothetical temple-pyramid with the potential areas for sculptural decoration marked. No single temple used all of them, but all these areas carried sculpture in one example or another. Temples at Palenque could also contain a smaller interior temple that also carried sculpture.
the pyramid. Many of these radial pyramids, especially the early ones, like Structure E-VII-sub of Waxaktun and the Lost World Pyramid of Tikal, have sculpture facing outward in all four directions. In “E-groups,” the radial pyramid sits in the middle of a plaza, with three buildings lined up on a platform to the east, and far more rarely to the west. In “twin-pyramid complexes,” two radial pyramids sit across from each other on an east-west axis, with other smaller buildings in the north and south. Known examples of twin-pyramid complexes do not have temples on top of the pyramids nor any kind of architectural sculpture.

Architectural sculpture usually falls into one of the following categories: (1) imagery that defined the building as a particular sacred space in order to create a performance-oriented environment; (2) narratives displaying historical information in both imagery and texts; (3) narratives that showed stories and myths in progress; (4) imagery that froze ritual performance in progress; (5) combinations of one or more of these types. By and large, stela compositions fall into these same categories, with special emphasis on historical narrative and sacred context. The Maya thus used architectural sculpture to create sacred environments for the unfolding of ritual performance and to freeze the ephemeral actions of rituals into narrative sequences that locked history into the center of sacred space. Creation and its reenactment evoked cyclical time and the myths of origin and social authority, while historical narratives placed linear time into the context of ritual so that performance operated in both the cosmic and historical environments at the same time.

Maya builders had a language of metaphor and image available to create this charged environment. The entire society shared this language of symbols, which endured for thousands of years. Some of the key metaphors are as follows:

Fig. 1.13. Mountain images from (a) Copan Temple 22, (b) a Yax-Hal-Witz from Bonampak’ Stela 1, (c) Mo’Witz from Copan, and (d) a Snake Mountain from Waxaktun.

1. The py

Since the M;

1. The py

Since the M;

2. The ca

(Fig. 1.14).

and the Hig

The Maya al

of the templ

3. Public

nab, “thatch

thatched-roc

Uxmal, or t

thatch, as in

Oor, and its

d, much

pronoun, as

building. Of

the yotot of t

\begin{figure}
\centering
\includegraphics[width=\textwidth]{mountain_images}
\caption{Mountain images from (a) Copan Temple 22, (b) a Yax-Hal-Witz from Bonampak’ Stela 1, (c) Mo’Witz from Copan, and (d) a Snake Mountain from Waxaktun.}
\end{figure}
1. The pyramid was a **mountain**, or *witz* in the Maya languages (Fig. 1.13). Since the Maya conceived of mountains as living beings, they represented them as zoomorphic creatures, complete with eyes, muzzle, mouth, and ear ornaments. Mountain monsters, identified by a combination of *ten* ("stone") markings and a cleft in their forehead, occur on the corners of buildings, on terraces, and around the doorways. There were two principal mountains of particular importance in Maya cosmology and political symbolism: Sustenance Mountain, also called *Yax-Hal-Witz*, "First True Mountain," which was shown as a split mountain with the Maize God emerging from the cleft, and Snake Mountain, called *Kan-Witz*, which they showed as a mountain monster with snakes emerging from its mouth, or penetrating it from side to side, or with snakes around the base of a pyramid.

2. The **cave** inside the pyramid-mountain provided a path to the Otherworld (Fig. 1.14). Buildings were sometimes constructed over caves, as at Dos Pilas and the High Priest’s Grave at Chich’en Itza, or next to them, as at Mayapan. The Maya also symbolized the cave by wrapping a *witz* monster around the door of the temple so that the door, or “mouth of the house,” became the “mouth of the mountain.”

3. Public buildings could also represent themselves as stone effigies of *xanil nab*, "thatched house." Sometimes sculptors incorporated the imagery of a thatched-roof house into the entablatures, as in the Nunnery Quadrangle at Uxmal, or they could model the plaster on the medial molding to look like thatch, as in House E at Palenque. Maya languages have two words for “house.” *Otot* and its cognates refer to a house with the sense that it is inalienably possessed, much like the English word “home.” *Otot* always occurs with a possessive pronoun, as in *yotot*, “his house.” *Nab* is “house,” simply as an unpossessed building. Often the proper names included the *nab* word, but the structure was the *yotot* of the king or a lord (Fig. 1.15).
4. There were special kinds of council houses called *popol nah*, “mat house” (Fig. 1.16), *nike’al nah*, “flower house,” or *sak nah*, “white house.” These were community houses in which councils of lords met, where dancing and feasting took place, and where the regalia of ritual and dance were kept. The community houses could function at the level of the state, but lineage groups and small towns also had their community houses.

5. The Cosmic Hearth consisted of three “throne stones”—a jaguar, a snake, and a shark or crocodile—set in a triangle (Fig. 1.17). In the sky, this hearth is found in the constellation of Orion, but in architecture, the Maya reproduced it by arranging their buildings in the same triangular form. The imagery of buildings could also refer to the hearth.

6. *Na-Ho-Kan,* “First-Five-Sky,” was the location of the first stone of the

---

Fig. 1.16. A *popol nah*, or “mat house,” built at Waxaktun during the Late Preclassic period.

Fig. 1.17. The Cosmic Hearth and its three throne stones. Yax Ox-Tunal “First” or “Green Three Stone Place” Jaguar Throne Stone Snake Throne Stone Shark Throne Stone
Cosmic Hearth, the Jaguar Throne Stone. A snake umbilicus also emerged from this place in the form of entwined snakes (Fig. 1.18).

7. There were several kinds of portals called by different names. With a pedigree beginning in Olmec times, the quatrefoil shape represents the most ancient portal. The Maya called it ol, meaning "the heart of," or hol, "door" or "portal." Another image presents the jaws of the Sak-Bak-Na-Kan, the "White-Bone-Snake." The image of this skeletal portal could appear in a recognizable snake form, but there was also a more abstract form that depicted cenotes, caves, and other openings into the earth. This portal was the Ek' Waynal, the "Black Transformation Place," or the "Black Dreaming Place" (Fig. 1.19).

8. The glyph for "plaza" combines the ol quatrefoil with stone signs and waterlilies (Fig. 1.20). The Maya saw plazas as portals opening onto the Primor-

---

Fig. 1.18. The intertwined snakes that symbolize the Sky Umbilicus and the glyph for Na-Ho-Kan, the place where the gods set up the Jaguar Throne Stone.

---

Fig. 1.19. Passageways to the Otherworld.
Fig. 1.20. The glyphs for “It happened in the plaza.”

dial Sea. This association may have come from Maya experience in tropical rainstorms that filled up the plaster-lined plazas with water. At Copan and other sites, they built special drainage systems to carry off the rainwater. At many sites, the Maya captured this runoff water in cisterns or reservoirs.

9. Maya scholars have identified the ubiquitous long-nosed god of Yukatekan architecture as Chak since the late nineteenth century. In fact, the long-nosed gods of architectural sculpture can represent several different gods, including the witz monster, a crocodile sky monster, umbilicus serpents, and most commonly, the sacred bird named Itzam-Ye and Mut Itzamna. This last identification is a new one based on the presence of a headband with a flower, the signal that marks both the old god Itzamna and his avatar, the great supernatural bird that sat on top of the World Tree. This bird held an ancient place in Maya imagery.

Fig. 1.21. Examples of Itzam-Ye or Mut Itzamna from the Late Preclassic period (upper row), the Early Classic period (second row), Late Classic period (third row), and the Terminal Classic period at Chich’en Itza (bottom row).

Majestés, or their conduits, were often represented in the frames around them. Artists often used both the bird and the god, and their representations are found throughout the Maya area. In this way, the ancient Maya used the long-nosed god to represent a wide range of ideas and concepts, from the supernatural to the natural world.

46 LINDA SCHELE AND PETER MATHews
Maya imagery, with the earliest known versions dating to the Late Preclassic period (400 B.C.-A.D. 100). The presence of the bird on Maya architecture, either as an image spreading out across a terrace or entablature or as a stack of long-beaked masks on the corner of a building, designated that the associated structure was an Izam Nah, “conjuring house.” We have included illustrations that diagram the development of the Izam-Yé bird over time and show how it became the Puuk-style long-nosed mask (Fig. 1.21).

10. Feathered serpents and other kinds of snakes played a crucial role in Maya imagery of all types. In general, they symbolized the transition between one state and another or one world and another. Vision Serpents could take many different forms, but one of the most important was entwined serpents that represented the umbilicus that connected Maya lords to their source of power. From the Late Preclassic period on, Maya sculpture placed the sky umbilicus in frames around architectural terraces to define context. The heads of these snakes were often fused with the glyph for “white” or “white flower” to show that they were conduits for human souls (Fig. 1.22).

Artists also depicted Vision Serpents rearing in front of people deep in trance states, or undulating across building facades or up corners to emit beings they had brought from the Otherworld. Among the many varieties were feathered

Fig. 1.22. Vision Serpents of various kinds from monuments and pottery scenes. Serpent a and b have “white flowers” on their tails, while serpent f carries the flower on the ends of its noses. Serpent d has a flint knife, and serpent e has a K’awl on its tail.

THE CODE OF KINGS 47
serpents, but to some degree, feathers were an attribute that could be added to any Vision Serpent. For example, the War Serpent called Wazaklahun-Ubah-Kan wore feather fans attached to its head and body. Copan particularly favored feathered serpents, and as far as we know, Copan artists were the first to put legs on their feathered serpents. The earliest legged serpent known in Mesoamerica appears on Rosalila, a buried temple built at Copan in the late sixth century. This legged serpent with feathers became central to the art of Chichén Itzá and other Terminal Classic and Early Postclassic traditions in Mesoamerica. We have included illustrations that detail the development of the feathered serpent in Olmec and Maya art (Fig. 1.23).

THE DEDICATION OF MAYA BUILDINGS AND THEIR PROPER NAMES

Maya lords conducted special rituals of dedication to bring life into their buildings and to make them ready for the use of the human and spiritual beings who resided in them. Today, Maya still dedicate their houses in complex rituals that vary from community to community with a core of meaning common to all. For example, many Maya present a live offering, such as a chicken or a sheep, to serve as a replacement gift to the earth spirits who have allowed the land and its materials to be used in the construction of the house. Incense and other precious materials such as sugar, alcohol, and candles, are burned in a plate or on an altar decorated with flowers. The flowers have the colors of the four world directions, and often the ritual incorporates movement through the four directions and into the four corners and the center. And very often a house altar carries a cross that has its roots as much in the pre columbian world as it does in Jerusalem. During the ceremonies, the priest, called an Ab Q’ih or H’Men, depending on the region, recites a long litany of prayers invoking protection for the building from the saints and the spirits of the earth. The santos of modern Maya ritual came from Europe, but almost everything else has its roots in the pre columbian world. The ancient Maya deposited special offerings in holes cut through the floors in various places in their buildings, especially on the central axis, inside the doors, under the center point, and at the four sides and corners. To contain the offerings, they used clay or stone buckets and large plates called sak-lak, “manufactured plate,” with a second plate inverted over the top as a lid. These offerings consisted of severed heads, flints, obsidians, thorns, shells, jade, mirrors, red pigment, and other such precious material. Almost all of these materials corresponded to representations of kulel, the living force that imbues all things. One purpose of the dedication rituals was to put the kulel, or “soul-force,” into buildings (Fig. 1.24).

This soul-force became ever more powerful with usage. The offering plates
Fig. 1.23. Feathered serpents from Olmec and Maya imagery of the Preclassic (top left), Early Classic Period (middle left), and Late Classic and Postclassic (bottom left) periods. The imagery of the Serpent and the Lizard is common in both the Olmec and Maya cultures.

The Code of Kings

49
and buckets opened an *ol*, or "portal," that allowed access to the supernatural world. When the Maya materialized their gods and ancestors through these portals, the spiritual beings left residual energy in the buildings and the objects that opened the portals. Thus, very old buildings, very sacred rituals, and very powerful people affected this energy in proportionally greater ways, so that the oldest portals contained the most intense *k'ulel* of all. The Maya kept building over these portals for hundreds of years, so that their buildings were like onions—layer after layer accumulating over the sacred core.

The inscriptions recorded these dedication rituals for objects and buildings of all types. The conventional structure of a dedication statement (Fig. 1.25) includes an introductory verb, a verb of dedication, the proper name of the object, a phrase reading "its name," the word for the type of object, and the name of its owner. These statements give us a rich inventory of actions used to dedicate things, the terms for various categories of objects, such as "house," "bowl," "plate," "stela," "altar," etc., and most interestingly, the proper names of the objects and buildings being dedicated. Finally, these texts sometimes include the names of the painters, scribes, and sculptors who made the objects.

These dedication rituals are as important to archaeologists as they are to art historians and epigraphers. The offerings sealed under floors and inside terraces and plazas contain some of the most important evidence used in dating buildings and developing chronologies of various sites. For epigraphers and archaeologists alike, these dedication offerings and the termination rituals that ended one phase before beginning another are like time capsules that bear witness to the beliefs, economics, and social practices of ancient Maya life.
Maya History and Chronology

The great archaeological periods we discussed at the beginning of this chapter give us the framework into which we place Maya history and contemplate its meaning. Archaeologists derived these periods—the Preclassic (1500 B.C.—A.D. 200), the Classic (A.D. 200–910), and the Postclassic (A.D. 910–1524)—and their subdivisions from the material record that they have recovered from archaeology. The features they observe include the style and materials used in pottery, architecture and lithic technology, the appearance of writing and imagery and their
style and development, the association of dated monuments with other archaeological material, burial practices, and the contents and methods of placing offerings. Radiocarbon dates from organic remains and a host of newer dating methods, some of which are still being tested, provide further data.

The other major method of dating Maya history comes from the chronologies the Maya themselves recorded on their monuments. The Maya used a complex set of calendars that kept track of many different cycles to date events in their public inscriptions. The most sacred of these cycles was a count of 260 days we call the tzolkin. Consisting of thirteen numbers combined with twenty days, this calendar was used for divination and as a fundamental cycle of time throughout Mesoamerica. The Maya combined this cycle with the haab, a count of 365 days divided into eighteen months of twenty days. To bring the count to the full 365 days, they added a five-day period called Wayeb ("resting days") at the end of the year. It took fifty-two years or a Calendar Round for the same combination of days in the tzolkin and haab to recur. The Maya combined these three calendar cycles with an era-based calendar called the Long Count. The base date in this Long Count, written 13.0.0.0.0 4 Ahaw 8 Kumk’u in the Maya system, corresponded to August 13, 3114 B.C., in the modern calendar. The Long-Count calendar recorded accumulated years of 360 days consisting of eighteen months of twenty days. The Maya numerical system was base-twenty, so they counted in groups of twenty years instead of ten as we do. The year was called a “tun”; twenty tuns made a “katun,” and twenty k’atuns made a “baktun.” We have examples of numbers written with twenty places above the baktun. Since each baktun was four hundred years long, they paid far more attention to the k’atun. For example, they also used a shorter cycle of thirteen k’atuns that ran through all the possible names of the k’atuns. They named each k’atun for the day on which it ended, and they celebrated k’atuns when they were completed, just as we celebrate babies’ first birthday after they have lived for a year. Most of the history recorded in the inscriptions took place in baktuns 8, 9, and 10. We are living today in the last k’atun of baktun 13.

A summary of the history of the sites in this book is as follows:

**EARLY PRECLASSIC**

1000 B.C. Floreance of Gulf Coast Olmec; early villagers and beginnings of hierarchical social organization in the Pacific zone and Peten; permanent settlements in the Copan Valley

**MIDDLE PRECLASSIC**

900 B.C. Rich tombs in the Copan Valley
600 B.C. Tikal settled by early villagers
500 B.C. Large towns and long-distance trading appear in Peten, Guatemala
### LATE PRECLASSIC

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 B.C.</td>
<td>Late Preclassic period begins; construction of large temples with plaster masks flourishes at Nak'be, El Mirador, and other early Maya sites; formulation of the institution of kingship</td>
</tr>
<tr>
<td>200 B.C.</td>
<td>Early Izapa monuments with Popol Vuh mythology in the south; sculpted temples begin to appear throughout the northern lowlands; carved and dated monuments and large towns in the southern highlands; early settlements at Teotihuacan</td>
</tr>
<tr>
<td>100 B.C.</td>
<td>Appearance of writing in the Maya zone; Snake Mountains appear in the architecture of Waxaklutan and Cerros</td>
</tr>
<tr>
<td>50 B.C.</td>
<td>Structure 5C-2nd at Cerros; North Acropolis and steles at Tikal; Group H at Waxaklutan; El Mirador the dominant lowland center; green obsidian from Teotihuacan region at Nohmul</td>
</tr>
<tr>
<td>A.D. 100</td>
<td>El Mirador and other Late Preclassic centers abandoned</td>
</tr>
<tr>
<td>8.3.0.0.0</td>
<td>First date with a king found in Loltun Cave, Yukatan</td>
</tr>
<tr>
<td>120</td>
<td>Date recorded with an inscription and royal imagery on a broken jade plaque in the Dumbarton Oaks Collection</td>
</tr>
<tr>
<td>160</td>
<td>The kingdom of Copan established</td>
</tr>
</tbody>
</table>

### EARLY CLASSIC

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>219</td>
<td>8.9.0.0.0</td>
</tr>
<tr>
<td>292</td>
<td>8.12.14.8.15</td>
</tr>
<tr>
<td>317</td>
<td>8.14.0.0.0</td>
</tr>
<tr>
<td>376</td>
<td>8.17.0.0.0</td>
</tr>
<tr>
<td>378</td>
<td>8.17.1.4.12</td>
</tr>
<tr>
<td>379</td>
<td>8.17.2.16.17</td>
</tr>
<tr>
<td>396</td>
<td>8.18.0.0.0</td>
</tr>
<tr>
<td>411</td>
<td>8.18.15.11.0</td>
</tr>
<tr>
<td>426</td>
<td>8.19.10.0.0</td>
</tr>
<tr>
<td>426</td>
<td>8.19.10.11.17</td>
</tr>
</tbody>
</table>
431 8.19.15.3.4  K'uk'-Balam acceded and founded the dynasty of Palenque
439 9.0.3.9.18  Last event recorded on Stela 31 at Tikal
475 9.2.0.0.0  K'an-Ak ruled at Tikal
537 9.5.3.19.15  Double-Bird, the twenty-first king of Tikal, acceded (?)
553 9.5.19.1.2  Yahaw-Te of Caracol acceded by the action of the king of Tikal
556 9.6.2.1.11  Tikal attacked and sacked Caracol
557 9.6.3.9.15  Last date at Tikal before they lost to Caracol
562 9.6.8.4.2  Caracol defeated Tikal in a "starwar"

**LATE CLASSIC**

603 9.8.9.13.0  Hanab-Pakal the Great was born at Palenque during the reign of Ah-Ne-Ol-Mat
603 9.8.9.15.11  A Bonampak' lord threw down the "Flint-Shield" of a lord of Palenque
612 9.8.19.7.18  Lady Sak-K'uk', Hanab-Pakal's mother, acceded at Palenque
615 9.9.2.4.8  Hanab-Pakal of Palenque acceded
625 9.9.12.11.2  Balah-Kan-K'awil, son of Animal-Skull of Tikal, acceded at Dos Pilas
628 9.9.14.17.5  K'ak'-Nab-K'awil (Smoke-Imix-God K) of Copan acceded
628 9.9.15.0.0  Animal-Skull of Tikal named on a monument at Altar de Sacrificios
633 9.10.0.0.0  Hanab-Pakal of Palenque ended the first k'atun of his reign
635 9.10.2.6.6  Kan-Balam, son of Hanab-Pakal of Palenque, was born
640 9.10.7.13.5  Lady Sak-K'uk', Hanab-Pakal's mother, died at Palenque
641 9.10.8.9.3  Kan-Balam of Palenque was designated heir to the throne
643 9.10.10.1.6  K'an-Mo'-Balam, Hanab-Pakal's father, died at Palenque
644 9.10.11.17.0  K'an-Hok'-Chitam, brother of Kan-Balam, was born at Palenque; Balam-Ahaw of Tortuguero conducted a series of wars along Palenque's western frontier
647 9.10.14.5.10  Hanab-Pakal dedicated his first temple at Palenque
649 9.10.16.16.19  Yich'ak-K'ak' of Kalak'mul born
650  Teotihuacan was sacked around this time

54  Linda Schele and Peter Mathews
Kak-nab-Kwii of Copan ordered the execution of Atak at the Copan Palace.

Nun-Bak-Chak of Tikal was driven into exile.

Mam-Tukan of Tzakti was executed.

Nun-Bak-Chak of Tikal was killed at the East Plaza at Tikal.

Kak-nab-Kwii of Copan celebrated the return of Quirigua.

Handal Pakal established the Kaan ending at Palenque.

Habak Pakal forces Nun-Bak-Chak of Tikal to return to Palenque.

Inscriptions at Palenque:

- The House of Nun-Bak-Chak of Tikal arrived in Palenque in 657.
- Nun-Bak-Chak of Tikal was driven into exile in 659.
- Nun-Bak-Chak of Tikal arrived in Palenque in 677.
- Nun-Bak-Chak of Tikal arrived in Palenque in 675.

The Code of Kings

55
Hasaw-Kan-K’awil displayed his captive
Hasaw-Kan-K’awil undertook a conjuring rite and displayed the palanquin he captured from Kalak’mil; this took place 260 tuns (13 k’atuns) after the last date on Stela 31, the stela celebrating Tikal’s conquest of Waxaktun
Waxaklahun-Ubah-K’awil dedicated his first stela at Copan
Kan-Balam of Palenque died
K’an-Hok’-Chitam, the younger brother of Kan-Balam, acceded to the throne of Palenque
Waxaklahun-Ubah-K’awil of Copan erected his first stela in the Great Plaza
Waxaklahun-Ubah-K’awil of Copan dedicated Temple 22 to celebrate the first k’atun-anniversary of his accession
Waxaklahun-Ubah-K’awil erected Stela F
Waxaklahun-Ubah-K’awil erected Stela 4
Waxaklahun-Ubah-K’awil erected Stela H and completed a ritual with the bones of an ancestor
Waxaklahun-Ubah-K’awil erected Stela A
Waxaklahun-Ubah-K’awil erected Stela B
During this k’atun, Ah-Kuy-Tok’ established himself at Uxmal; at the same time, Holol-Chan-Tepew and Ah-Mek’at-Tunul-Xiw arrived at Chakanboton and began a ninety-nine-year stay
Yik’in-Kan-K’awil, son of Hasaw-Kan-K’awil, became the king of Tikal
Waxaklahun-Ubah-K’awil erected Stela D at Copan; K’ak’-Tiliw of Quirigua erected a monument and was visited by a lord of Kalak’mil
Waxaklahun-Ubah-K’awil dedicated Ballcourt IIIA at Copan
K’ak’-Tiliw of Quirigua burned the gods of Waxaklahun-Ubah-K’awil
K’ak’-Tiliw of Quirigua took Waxaklahun-Ubah-K’awil of Copan captive and sacrificed him
Smoke-Monkey of Copan acceded
Yik’in-Kan-K’awil of Tikal attacked El Peru and captured a palanquin
rning rite and m Kalak’mul; the last date; conquest of first stela at
ier of Kan-
ed his first ed Temple 22 his accession
ed himself Tecw and abiton and
il, became at Copan; est and was curt IIIA at
un-Ubah-
and cap-

744 9.15.12.11.13 Yik’in-Kan-K’awil of Tikal attacked Naranjo and captured Yax-May-Kan-Chak and his palanquin god, K’in-Hix-Ek’-Way
746 9.15.15.2.3 Yik’in-Kan-K’awil of Tikal paraded in his captured palanquin
749 9.15.17.12.16 Smoke-Monkey of Copan died
9.15.17.12.10 Smoke-Shell, the son of Smoke-Monkey of Copan, acceded
763 9.16.12.5.17 Yax-Pasah of Copan, son of a woman of Palenque, acceded
766 9.16.15.0.0 Yax-Pasah of Copan set up Altar G2 in the Great Plaza
768 9.16.17.16.4 Yax-Ain (Ruler C) of Tikal acceded
769 9.16.18.0.0 Yax-Pasah of Copan began remodeling Temple 11
773 9.17.2.12.16 Yax-Pasah dedicated the upper temple of Structure 11
775 9.17.4.7.12 A date recorded in the House of the Seven Dolls at Tz’ibilchaltun
9.17.5.0.0 Yax-Pasah dedicated Altar Q
790 9.18.0.0.0 During the twenty years before this k’atun-ending, the Itza held an assembly at Ichkantiho (Tz’ibilchaltun) to establish the Itza confederacy
795 9.18.5.0.0 Last date at Bonampak; Yax-Pasah placed an altar in the Temple 22A council house
799 9.18.9.4.4 Accession of 6-Kimi-Hanab-Pakal at Palenque; the last date at Palenque
800 9.18.10.0.0 Yax-Pasah erected Altar G in the Great Plaza
807 9.18.17.1.13 Ballgame event on La Amelia Stela 1; last date associated with the Petexbatun state
808 9.18.17.13.4 Last date at Yaxchilan

TERMINAL CLASSIC

810 9.19.0.0.0 Yax-Pasah goes to Quiriguá to celebrate the k’atun-ending
816 Last date at Piedras Negras
817 Last monument erected at Chink’il-tik
820 Last date at Kalak’mul
821 Last date at Naranjo
825 Last date at Quiriguá
828 Yax-K’uk’-Mo’s dynasty ended at Copan

THE CODE OF KINGS 57
U-Kit-Tok’ of Copan acceded and within ten years the central government collapsed.

War’ul arrived at Seibal because of the king of Ucanal. The baktun-ending was celebrated at Oxpemul and Waxaktun.

The Temple of the Hieroglyphic Jamb was dedicated at Chich’en Itza.

Last date at Machaquila.

The High Priest’s Grave was dedicated at Chich’en Itza.

War’ul of Seibal dedicated Temple A-3 and his stelae were last placed at Altar de Sacrificios, Xunantunich, and Ucanal.

Last date at Caracol.

The Great Ballcourt of Chich’en Itza was dedicated.

Hasaw-Kan-K’awil, the last ruler of Tikal, scattered; last date at Tikal.

Fire ceremonies for K’ak’upakal and Hun-Pik-Tok’ in the Casa Colorada at Chich’en Itza.

The Halak’al Lintel mentioned Hun-Pik-Tok’ at Chich’en Itza.

The Ak’ab Te’ib Lintel was dedicated by a K’ak’upakal at Chich’en Itza.

K’ak’upakal did fire rituals at Chich’en Itza (Yula lintels).

Temple of Owls capstone was dedicated at Chich’en Itza.

The Temple of the Initial Series was dedicated at Chich’en Itza.

Monuments dedicated at Ixlu, Jimbal, Sacchana, and Chich’en Itza.

The Monjas lintels were dedicated at Chich’en Itza.

Members of the Mulucpal dedicated the Temple of the Four Lintels at Chich’en Itza.

Monjas capstones were dedicated at Chich’en Itza.

Chan or Tan died (probably in battle) at K’abah.

The Tutul Xiu would have arrived at Uxmal during this k’atun if they had stayed in Chakanbiton for ninety-nine years.

K’ak’upakal mentioned in the inscriptions of Uxmal (The text includes a chiak destruction event that may
refer to the creation by conquest of a regional state by the Tutul Xiu in concert with Chich'en Itza. The date 11 Ahaw occurs in the text, but it cannot be placed in the Long Count.)

Last date at Waxaktun enacted by the local lord under the authority of Hasaw-Kan-K'awil of Tikal; monuments dedicated at La Muñeca, Xultun, Jimbal, Seibal, and Sayil

The Ballcourt Marker at Uxmal was dedicated by Chan-Chak-K'ak'nal-Ahaw

Chan-Chak-K'ak'nal-Ahaw dedicated one of the buildings in the Nunnery Quadrangle at Uxmal

Chan-Chak-K'ak'nal-Ahaw dedicated another building in the Nunnery Quadrangle

Stelae were dedicated at Uxmal, Tonina, and Chich'en Itza

Itzimte Stela 5 recorded that a ruler scattered; this is the latest known date in the inscriptions

Chich'en Itza was abandoned for the first time during this katun, and the Itza established themselves at Chak'anputun, which they ruled for thirteen katuns

10 Ahaw recorded on Stela 1 of Mayapan

The Itza left Chak'anputun

The Hunak-Kel incident where Chak-Xib-Chak was forced out of Chich'en Itza for the second time; Itza retreated to Tan Xuluk Mul, reigned a second time in Chak'anputun; K'ak'upakal and Tekuylu conquered Chak'anputun

During this katun, K'inch K'ak'-Mo and Popolch'an of Itzamal were driven out by Hunak-Kel; the Itza, in concert with the men of U'il of Itzamal, attacked Mayapan

4 Ahaw recorded on Stela 4 of Mayapan

During this katun, the Itza defeated Mayapan, established a new confederacy, and became known as Maya

2 Ahaw recorded on Stela 13 of Mayapan

Mayapan was abandoned
The Tutul Xiu left Mayapan
Mayapan was finally abandoned, and the Maya were scattered in the region

Around this time, the K’iche’ under K’iq’ab were establishing an empire in highland Guatemala

Around this time, the Kaqchikels separated from the K’iche’ and established their capital at Iximche’

The Akahals and the Tukches rebelled against the Iximche’ Kaqchikels and their kings Oxlahuh-Tz’i’ and Kablahuh-Tihan

The first epidemic of smallpox or some other European disease raged in Yucatan during the years just before this katun-ending

A Maya trading canoe was contacted in the Bay of Honduras during the fourth voyage of Columbus

Oxlahuh-Tz’i’ of Iximche’ died

Aguilar and Guerrero shipwrecked on the coast of Yucatan

Cortés landed on Cozumel Island

Tenochtitlan, the Aztec capital, fell

Alvarado and the Spaniards defeated the K’iche’ in the battle of Xelahuh

Alvarado burned the K’iche’ kings at the stake and destroyed their capital, Q’umarkah

The Spaniards entered Iximche’ and were welcomed by the Kaqchikel kings

Alvarado declared Iximche’ to be Santiago de los Caballeros de Guatemala and capital of the new territories he intended to conquer

The outraged Kaqchikels abandoned Iximche’ and began a war against the Spanish invaders

Cortés met King Kan-Ek’ at the Itza capital of Tayasal during his trip across Maya country to Honduras

Spanish deserters burned Iximche’

The Kaqchikel kings and their lords surrendered

Alvarado hanged the Kaqchikel kings who had surrendered

Alvarado died

Torrential rains caused a landslide on Agua Volcano
<table>
<thead>
<tr>
<th>Year</th>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1542</td>
<td>11.16.2.3.14</td>
<td>The Spaniards founded the city of Mérida over the ruins of Tihó</td>
</tr>
<tr>
<td>1546</td>
<td>11.16.7.2.6</td>
<td>The Maya of eastern Yucatan rose up against the Spaniards</td>
</tr>
<tr>
<td>1697</td>
<td>12.3.19.11.6</td>
<td>The Spaniards defeated the Itza of Tayasal and the last independent Maya kingdom fell</td>
</tr>
</tbody>
</table>
Notes

CHAPTER 1: PYRAMID-MOUNTAINS AND PLAZA-SEAS

1. We used numbers at Copan to avoid confusion because most of the stelae are designated with letters.

2. The reconstruction of this history has been one of the great intellectual adventures of the late twentieth century. Heinrich Berlin (1959) and Tatiana Proskouriakoff (1960, 1961, 1963–1964) laid the foundation by identifying emblem glyphs (titles that include the name of the kingdom) and proving that the contents of the inscriptions were historical. Proskouriakoff especially identified events and names at many different sites that set the precedent for later studies. Thomas Barthe (1968) first began to apply their work toward understanding larger political structures. His observations on emblem glyphs prefigured Joyce Marcus’s (1973, 1976) work in trying to combine historical studies with reconstructing the political structure of the Classic period. Many scholars contributed to the reconstruction of the histories of individual sites, but it was Schele and Freidel (1990) who first published a wider chronicle of Maya history, joining it to contemplation of social organization and intersite warfare. Building from this long accumulation of historical information and debate about political and social structure, Simon Martin and Nikolai Grube (n.d.) have proposed that the states of the Classic-period southern lowlands organized themselves into two great competing hegemonies led by Tikal and Calakmilk. Although no overall central state mechanism ever dominated the region, the rulers of many kingdoms acknowledged subordinate status to one or the other of these two states. Loyalties often shifted and wars were fought on a more or less continuous basis between subordinate members of these hegemonies. More rarely, the principal states engaged in direct warfare. The result was volatile, shifting political ground for everyone. A later analysis of these wars and their outcomes can be found in the workshops for the 1994 and 1995 Workshops on Maya Hieroglyphic Writing at the University of Texas, Austin (Schele and Grube 1994, Grube and Schele 1995).

3. Schele and Freidel (1990) discussed the economics of tribute in the contexts of the wars of the fifth- and sixth-century Peten kingdoms. Excavations of sites involved in these wars (Chase 1991, Demarest 1993) have shown that winners benefited enormously, probably through tribute extractions, while losers suffered both economically and physically. Roys (1957) has discussed the predatory tribute extant in the
northern lowlands just prior to the arrival of the Spanish. Maya documents from the highlands of Guatemala, such as the Popol Vuh and the *Annals of the Kaqchiquel*, describe the tribute system of the K’iche’ empire during the fifteenth century. The use of tribute extraction was a fundamental economic mechanism in the Mexica (Aztec) empire (Haas 1985: 103–109; Berdan and Anawalt 1992: 55–79).

4. David Freidel (Schele and Freidel 1990: 92–93) discussed the use of commodities as currencies in Mesoamerica and Maya markets. We draw much of our information on the economy from his thoughts as expressed in *A Forest of Kings*.

5. Mary Helms (1993) discusses the importance of attaining goods from far-distant places to the prestige of chiefs and kings in various parts of the world.

6. Peter and Linda met each other for the first time at this 1973 conference, which had been organized by Merle Greene Robertson, an artist and researcher who spent over a decade documenting the architecture and sculpture of Palenque. At the time, we were both unknown and just beginning our love affair with the Maya, but that conference occurred at one of those pregnant moments in time when new ways of understanding something are ready to be born.

The moment had been made pregnant by the work of many people. Principal among these were Alberto Ruz, who had led a major project of excavation at Palenque beginning in 1948. He had found a tomb deep under the Temple of the Inscriptions in 1952, the same year that Yuri Knorozov published a paper showing how the ancient Maya writing system worked phonetically. “History” took a bit longer, but in 1960, Tatiana Proskouriakoff demonstrated that the contents of Maya inscriptions primarily concerned historical events of rulers and lords. Heinrich Berlin, who had made his own contributions to the “historical hypothesis,” had applied these new ideas to Palenque’s inscriptions and identified the names of four rulers, whom he called A, B, C, and D, on the Tablet of the 96 Glyphs. George Kubler had added one more ruler, whom he called Snake-Jaguar.

The “historical hypothesis,” as it is called, was presented in a series of pivotal papers by Proskouriakoff (1960, 1961, 1961a, 1963–64) in which she identified historical rulers at Piedras Negras and other sites, as well as identifying women in the inscriptions and presenting the first coherent analysis of Yaxchilan’s dynastic history. Berlin (1958, 1959) was the first person to identify historical portraits of rulers and he found emblem glyphs which turned out to be titles identifying people as “holy lords of particular kingdoms.” His contribution (Berlin 1968) included the identifications of four rulers at Palenque, including the famous Hanab-Pakal. Others followed their lead in historical interpretations, including David Kelley (1962), who proposed a dynastic history for Quirigua, and George Kubler (1972), who amplified Berlin’s dynastic identifications for Palenque.

7. The First Round Table was held in December 1973. In March 1974, Elizabeth Benson, then the director of the Precolombian Studies Center of Dumbarton Oaks, invited us to a mini-conference that led to another critical breakthrough. She assembled a team consisting of Mathews and Schele along with David Kelley, Floyd Lounsbury, and Merle Robertson. This team returned to Dumbarton Oaks to work on the inscriptions of Palenque during the next six years. Many of the interpretations and techniques of decipherment grew out of these meetings.

8. Stuart and Houston (1994) published much of the pioneering work on identifying place names, “province,” or “village.”

9. Robert Waterman (1991) identified modern Maya ceremonies, making it clear what some of these inscriptions were about.

10. We believe that the inscriptions are essentially historical, in that they record events in the history of rulers and their courts.

11. We are basing our reconstructions of living at Palenque on the work of Robert Waterman and Chip Beck (1991).

12. Archaeologists have been using these inscriptions as a kind of primary material in their work, but it also helped them understand the Maya and their culture.

13. Elliot Abrams (1985) has used these inscriptions to study the Maya polity, but it also helps us understand the Maya and their culture.

14. Barbara Price has used the inscriptions to study the Maya polity, but it also helps us understand the Maya and their culture.

15. Flora Clark has used the inscriptions to study the Maya polity, but it also helps us understand the Maya and their culture.
cuments from the of the Kaqchikel, 16th century. The sm in the Mexico 2: 55–79),
of commodities as t from far-distant
ence, which had er who spent over z. At the time, we
ays, but that con-
hen new ways of
people. Principal
of excavation at
the Temple of the
paper showing
story" took a bit
contents of Maya
lords. Heinrich
hypothesis," had
the names of four
5 Glyphs. George
a series of pivotal
ich she identified
ifying women in
lan's dynastic his-
portraits of rulers
ifying people as
968) included the
lanab-Pakal. Oth-
id Kelley (1962),
ler (1972), who
74, Elizabeth Ben-
Dumbarton Oaks,
rough. She assem-
Kelley, Floyd
on Oaks to work
of the interpret-
work on identifying
place names and how they work. Grube and Schele (1991) added tzuk, the term for
"province," to the decipherments of glyphs referring to place and geographic organ-
ization.
9. Robert Wauchop's (1938) classic study remains the major comparative source on
modern Maya houses. Many modern ethnographies also discuss the house, its
meanings and symbolism, rituals of dedication, and methods of construction.
10. We believe that lineage structures provided the basis of labor organization because of
descriptions of Maya communities at the time of the conquest and in modern ethnographies. Moreover, archaeological interpretations associated with residential

groups at Copan, Tikal, Palenque, and elsewhere have concluded that these com-

pounds housed lineage groups (e.g., Fash 1983; Fash et al., 1992; Haviland 1977,
1981, 1985; Rands and Rands 1961; Sanders 1986–present). Epigraphers have
identified titles and statements of subordination that can be used to plot affiliations
and relationships of status (e.g., Houston and Mathews 1985; Martin and Grube
n.d., 1995; Mathews and Justeson 1984: 212–213; Schele 1990; Schele and Freidel
1990: 262–305; Stuart n.d.; Villela 1993a). Other decipherments have identified
glyphs recording parentage (Schele, Mathews, and Lounsbury n.d.; Jones 1977) and
other kin relationships (Stuart 1989) between various individuals. This epigraphic
evidence in particular points toward kinship as a fundamental principal of Maya
social, political, and economic organization.
11. We are basing our interpretations on the compounds that have been excavated and
reconstructed at Copan, Tikal, and Palenque, as well as on our personal observations of
living arrangements in modern Yucatan, Peten, and the highlands of Guatemala
and Chiapas.
12. Archaeologists usually associated this kind of clay platform with southern
Guatemalan influence, but their appearance in Kahal Pech suggests they were in
wide use in the lowlands as well as the highlands. They are very difficult to detect
archaeologically and may well have been missed in past excavations.
13. Elliot Abrams (1994) ascertained the relative cost of plaster in comparison to other
materials in experiments at Copan. Not only is the making of plaster labor intensive,
but it also requires a lot of trees. Wood was also used in cook fires, so that reserving
plaster for the most critical uses may have been a necessity as the forest areas near
sites were cut down.
14. Barbara Fash has led the effort at Copan to reassemble the mosaic sculptures and
understand how the architectural sculpture worked. Her work in this regard has
been truly remarkable and recovered lost conceptions of Copan architecture. See her
reconstruction drawings in W. Fash (1991), Fash and Fash (1994), and Andrews and
B. Fash (1992), and construction of facades in the sculpture museum at Copan.
15. Flora Clancy (1994) and Peter Harrison (1994) have proposed a system of spatial
gometry used in the art of Tikal. Their system was based on a series of angular
relationships. While accepting their observed data as relevant, we are less confident in
their reconstructions of how these proportions were generated. In 1993, Christopher
Powell, an MA student at the University of Texas, solved the problem of "how" by
showing that Maya geometry used a cord to measure geometric shapes and to deter-
mine proportional relationships. Moreover, he found that the system is still widely
used throughout the Maya area, and that it played a crucial role in the ancient

NOTES TO PAGES 26–35 329
Powell has confirmed a similar use of measuring cord in the Maya-speaking area, although with variations. It is described in community rituals related directly to the mythical Snakes Mountain and the birth of person gods from the underworld. Brandberg (1989) has clarified that the display of the cord, held in the form of a cycle and then extended, describes the measuring out of the sky, earth, and a compass point being laid out for cultivation.

18. Scopas, the potters' house; high four columns, the temple of the gods.
19. This version was told by the chief of Chichén Itzá, 1975.
20. This myth is recorded in Book 10 of Sahagún (1986) according to the Aztecs.
21. See the notes to the chapter on Chichén Itzá for further discussion of the history of this debate.

22. Stuart (1986) presented his arguments at the 1984 Conference on Copán at the School of American Research in Santa Fe.
23. Enrique Florescano (1994, 1996) discussed Toltec as the capital of the Toltec

24. On Stroud's late report, see Willey (1977). The site seems to be smaller than Tiahuanaco.
26. Frans Blom and the identification and iconography of the Figures are a source of much debate.
27. Barbara Fiala, 1975. The idea that volcanic core lines are used is widespread.
archetypes. Put simply, Tollan was a symbol of sacred space and Quetzalcoatl was a symbol of sacred authority. . . Tollan expressed and gave sacred prestige to the effective organization of space associated with ceremonial cities while Quetzalcoatl was the standard for the vital relationship between kingship and divinity.

Carrasco (1982: 107) also stated that “as the evidence shows, there are ‘other’ Tollans and ‘other’ Quetzalcoats, but there is always Tollan and Quetzalcoatl,” and he argued that Teotihuacan was one of the Tollans of Mesoamerica. His discussion of these central myths is particularly useful.

24. On Structure E-VII-sub at Waxaktun, snake heads decorate the lowest level, maize-mountain monsters sit on the middle level, and the larch-beaked Izam-Yé bird decorates the balustrades of the stairs leading up to the temple. Waxaktun Group H, a Late Preclassic compound, depicts a plant-spouting mountain resting in the Primordial Sea. Above it sits the image of a second pyramid-mountain penetrated side to side by a Vision Serpent, in the earliest known image of a Snake Mountain.

Kathryn Reese-Taylor informs us that the base of Acropolis 6C at Cerros has mountain monsters with snakes emerging from their mouths. A huge banner stone sits at the base of the stairs leading to the summit of the Acropolis, and a large ballcourt lies nearby. The entire area is surrounded by channeled water and raised fields. This Acropolis, like both of the buildings at Waxaktun, represents Snake Mountain and the Place of Reeds, two hundred or more years before the core buildings at Teotihuacan were built.

25. See Ortiz and Rodriguez (1994: 76) for a description of the Olmec wooden statues and rubber balls found in the peatbog at El Manati. Reilly (1994) discussed this identification in his study of the imagery associated with shamanism at La Venta.

26. Frans Blom (Blom and LaFarge 1926: Fig. 21) published a photograph of this sculpture and described how he found it. The egg from the island and the statue from the volcano are now in the Regional Museum of Anthropology in Xalapa, Veracruz.

27. Barbara Fash (personal communication, 1992) suggested that the Maya of Copan considered the water draining out of the Acropolis to be sacred because it came from Creation places. We think she has a good idea here, because channeling water through sacred centers was a very ancient practice. Almost every Olmec site known has canals to channel water around and through its sacred center. To be sure, Maya aqueducts had a functional purpose of draining courts and roofs, but the Maya were very good at combining functional and sacred purposes in the same objects.

28. Eduard Selzer (1908) first associated the long-nosed mask with Chak based on the images of Chak in the Dresden Codex. Few people have challenged that identification, although Michael Coe and others have argued that it is the muzzle, not the nose, that was long. We began to rethink this identification many years ago, when it became apparent that many gods had long muzzles. Moreover, Chak of Classic-period imagery has a short muzzle. Other identifications, such as the mountain monsters at Copan, showed that the “long-nosed” category included more than one god, and that long-muzzled blank heads could be attached to almost any object to show that it was alive and imbued with power. See a discussion of the personification of objects in Schele and M. Miller (1986: 43–44).

29. Many scholars contributed to the decipherment of dedication texts, beginning with
Michael Coe's (1973) identification of the Primary Standard Sequence of glyphs on pottery. During the two decades after he pointed out the repetitive pattern in this text, other scholars, led principally by Nikolai Grube (1990, 1991), Barbara MacLeod (1990, 1990a, MacLeod and Reents-Budet 1994), and David Stuart (1989a), figured out that the text recorded the dedication of the pot, the type of vessel it was (Houston and Stuart 1989a), what it was meant to contain, its owner, and sometimes its artist. Stuart (in much earlier research on Copan texts), Schele (1990), Freidel and Schele (1989), and Kroeckck (1991) applied the information from the Primary Standard Sequence to texts concerning buildings, stelae, and other art objects. Research in this area continues, not only in decipherment, but also in commensurating the archaeological record with the inscriptions.

30. David Stuart (1986; personal communication, 1992) first identified the words for "scribe" (ah zii’th), "sage" (iz’zi’at), "scribbler" (ah bik’), and "sculptor" (although Nikolai Grube discovered its reading as ah uks [personal communication, 1994]).

CHAPTER 2: TIKAL

1. The upright stone slabs that the Maya used to portray their kings and record their history are called stelae (singular—stela), after the Greek word for tombstone. The early explorers who first published drawings and photographs of these monuments designated them with numbers or letters in the order of their discovery. Our dates for these monuments come from the dates the Maya carved on them to give a chronological framework to the history they recorded.

2. The name consists of the yax sign prefixed to a cage made of tied sticks in front of a shark head. Following an earlier suggestion by Lounsbury and Coe (1968), Schele (1986, 1992) used moch as the reading of the cage glyph and named this founder Yax-Moch-Xok. However, Nikolai Grube (personal communication, 1993) noted a context in which the cage is written ch’akte, a Yukatek word for "cage." This new reading gives an alternative reading of Yax-Ch’akte-Xok for the founder’s name.

3. David Stuart (personal communication, 1992) used phonetic complements on various examples of the Tikal/Dos Pilas emblem glyph to read the main sign as mu-te or mu'-te. Although no single example has all three complements together, there are enough examples to deduce that these were the correct spellings of the sign. In Yukatek, mu' means "rumor, news, tidings, bird, a bun or knot of plaited hair, a padded ring." In the Cholan languages, mu't is the general word for "bird." At Tikal and Dos Pilas, mu' was written as a knot of plaited hair seen from the rear of the head. At Palenque, it appears as a bird head. Several examples at Tikal included yax, "first," or "green," so that the lords of Mutul marked their kingdom as the "First Mutul.

4. There is an example on Stela 26 written natl mu'tul, another way of saying "First Mutul." One example on Stela 5 combines the tied hair with a head variant of the way "sorcerer" glyph. Two of the early stelae at Tikal depict the king as a way, or sorcerer, a usage that connects directly to the meaning of mu't as "prognostication."

5. There have been two major campaigns: one directed by the University of Pennsylvania during the late fifties and sixties, and extensive excavations by Guatemalan archaeologists during the 1980s.

6. David Stuart proposing the netic spellings king’s name, 5 or "Heaven-bc

7. Stela 31 record k'in’tun is tawen Other scholars rulers named assuming that seating of the analyses of the Tikal provenies Tikal ruler, the and 8.17 arc lik

8. Peter Mathews proposing that (1990: 130-16 Tikal’s history, monuments bet defeats suffered the history of th

9. Peter Mathews (1990: 130-165 ciated with this Stela 5, at Waka Frog) striding w and Freidel 1990 the victory, but verbs record his and och ha, "he second verb as a wounded and the refined and detail and Grube 1992; most celebrated it

10. Schele and Freidel Chak-ch’ak, base At the time, no di cification has been (1976: 140-176) i named on pots in carries the ninth in 22, which has been successor based or Stela 2 has identi