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*Function and Meaning
in Classic Maya Architecture*

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Classic Maya Architecture: Implications and Comparisons

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In John Gardner's (1971) retelling of the Beowulf epic from the monster's point of view, Grendel characterizes human beings as "pattern-makers." Grendel, a philosophical monster, is both fascinated and appalled by this pattern-making propensity, because he realizes that it renders humans very powerful but also can ensnare them in destructive ways. Archaeologists, of course, are archetypal pattern seekers. We spend our careers trying to discern patterns in the material and symbolic records of ancient cultures, because we hope they will enable us to reconstruct the past and determine how and why it changed. The excitement in this enterprise is discovering useful patterns; the danger is that we can create them to suit our own intellectual needs.

For more than 150 years Maya archaeology has been heavily influenced, one might even say dominated, by a particularly obtrusive and durable set of patterns—that expressed in architecture or, more appropriately and inclusively, the "built environment." By built environment I mean, following Rapoport (1990), the sum total of all purposeful human modifications of the landscape. I personally would also include all human alterations of natural ecosystems. Rapoport, by contrast, relegates unintentional human landscape modifications, such as deforestation and erosion, to the "ecological environment." The "cultural landscape" is the product of all such purposeful and unintended human alterations. Our core concern in this volume is Classic Maya architecture per se, and I will have little to say about the ecological environment or settlement systems on the regional scale.

Specialized and innovative studies of the built environment by anthropologists, architects, landscape architects, art and architectural historians, geographers, social and economic historians, and urban planners have proliferated in

the past two decades—for a recent review, see Lawrence and Low (1990). Research is often highly particularistic, but at least for some scholars the goal is identifying “universally valid principles for the social use of space . . .” (Douglas 1972: 516). The theme of this symposium is how Mayanists infer function and meaning from architecture, how our efforts relate to this larger evolving tradition of research, and what we can learn from and contribute to it.¹

My own paper has three main goals. First, it relates the theme of the built environment to basic issues of archaeology in general and to Maya archaeology in particular. Second, it summarizes approaches to the built environment presently being explored by Mayanists, mainly as a prelude to papers that follow. Finally, it presents a brief historical overview of how Maya scholars have incorporated the built environment into their research. This overview is partly presented as a coherent section of its own, but some of it is woven into the discussions of issues and approaches. As a result, strict chronological order is not always followed.

THE CLASSIC MAYA BUILT ENVIRONMENT

The Classic Maya built environment encompasses all the familiar “built forms” of Maya centers: temples, palaces, ballcourts, patios, reservoirs, roads, and causeways as well as the tombs, caches, monuments, the formal and informal embellishments associated with them, and their ambient spaces. It logically comprises much else as well: the dwellings of common people, rural terraces and field systems, sacred caves, burial places, and landmarks of all sorts. Movable, impermanent or perishable structures, such as scaffolds, arbors, banners, and litters that have left no material traces but can be inferred from iconography and epigraphy, are also included (see Houston, this volume). All these forms constitute our database for understanding how the Maya used and conceived of the places they built and inhabited.

Purposeful constructions constitute a huge resource for investigating the past and have done so ever since the beginnings of systematic Maya scholarship. Readers hardly need to be reminded of the wonder and speculation excited in John Stephens and Frederick Catherwood by their encounter with the forest-enshrouded ruins and carved monuments of Copan in 1839. It is worth remembering, however, that Stephens reflexively tried to evaluate this experience (although not in any mode of systematic inquiry) in terms of what he knew

¹ Archaeologists usually borrow ideas and methods from other disciplines. For a gratifying portrayal of archaeologists as innovators in the historical study of built environments, see Rapoport (1990: chap. 5).

about other ancient civilizations in the Old World from his studies and travels, a comparative perspective later neglected by some Mayanists.

Seen in such comparative perspective, the built environment of the Classic Maya is especially impressive. It is sobering to realize how much remains missing or unknown in the archaeological records of other early great civilizations. One searches the literature in vain for a single excavated Uruk period house in the first cities of southern Sumer or the well-preserved and complete layout of a single Old Kingdom Egyptian town. While colleagues in the valley of Mexico struggle to estimate the sizes of ancient communities from surface scatters of potsherds, Maya archaeologists investigate thousands of individual household features still exposed on the surface of the cultural landscapes they study. Without putting a spade in the ground, Mayanists can map the basic features, and often the details, of huge royal centers, and these are not plain, unembellished, and anonymous places like Harappa and Mohenjo-Daro, the great cities of the Indus Valley. Rather, the Classic Maya left us centers filled with art and writing, rich and highly personalized in historical implication. Much of this symbolic material, moreover, remains superbly contextualized. Only in the coastal deserts of the Central Andes and in the American Southwest do the records of ancient built environments approximate in accessibility, quality, and quantity that of the Maya lowlands.

This embarrassment of architectural riches offers great opportunities as well as great responsibilities. If archaeologists anywhere can use the built environment to make sense of the past, we can. We, more than archaeologists virtually anywhere else, should be innovative in our approaches to the past environment. What follows is partly an assessment of how well we have lived up to this responsibility.

MAYA ARCHAEOLOGY AND THE BUILT ENVIRONMENT

Since the emergence of anthropology and archaeology as professional disciplines during the last half of the nineteenth century, Mayanists have traditionally used architecture, or the built environment, for the following main purposes:

(1) to define the Maya culture area and bolster theories of cultural origins, development, and evolution;

(2) as a repository of inscriptional and iconographic information;

(3) to understand Maya cognition, especially as it relates to spaces and places;

(4) as a source of stratified artifact deposits and features with implications for Maya culture history;

(5) to link the Pre-Spanish Maya to ethnohistoric accounts;

(6) as an inferential tool to address issues such as Maya population size and subsistence agriculture;

(7) to promote interest in the past as a matter of national pride and to attract tourists;

(8) to generate and test hypotheses about the nature of Maya society and culture, most particularly the manner in which political power was organized, legitimized, and exercised.

The last purpose is the most fundamental and is concerned with the social production of built form—"the social, political, and economic forces that produce the built environment, and conversely, the impact of the socially produced built environment on social action" (Lawrence and Low 1990: 482). Function and meaning, the two themes that form the core concepts of this symposium, were not widely and systematically addressed until fairly late in the development of the discipline.

HISTORICAL PERCEPTIONS AND USES OF MAYA ARCHITECTURE

The architectural achievements of the Maya immediately and powerfully impressed the earliest Spanish explorers, and their observations are often remarkably pertinent to later archaeological discoveries. One of my favorite eyewitness accounts is Hernan Cortés's description of an elite Maya house—what archaeologists call a palace:

There are houses belonging to certain men of rank which are very cool and have many rooms, for we have seen as many as five courtyards in a single house, and the rooms around them very well laid out, each man having a private room. Inside there are also wells and water tanks and rooms for slaves and servants of which they have many. Each of these chieftains has in front of the entrance to his house a large courtyard and some two or three or four of them raised up high with steps up to them and all very well built. (Cortés 1986: 30–31)

Cortés's comment almost perfectly captures the essence of Maya elite compounds, built eight centuries earlier, that we excavated at Copan in the 1980s (Fig. 1).

After the conquest, the extent of the Maya built environment rapidly became apparent to Spanish colonists. Landa remarked that

If Yucatan were to gain a name and reputation from the multitude, the grandeur, and the beauty of its buildings, as other regions of the Indies have obtained by gold, silver, and riches, its glory would have spread like that of Peru and New Spain. For it is true that in its buildings and the multitude of them it is the most remarkable of all things which up to this day have been discovered in the Indies; for they are so many



Fig. 1 Plan of Group 9N-8, an elite residential compound at Copan, Honduras.

in number and so many are the parts of the country where they are found, and so well built are they of cut stone in their fashion, that it fills one with astonishment. (Landa 1941: 171–172)

Landa also left us some of the earliest detailed descriptions and depictions of large-scale Maya architecture, including sketches of buildings at the now destroyed center of Tiho, where Mérida presently stands, and at Chichen Itza (Fig. 2). By Landa's time, the large number of abandoned Maya centers had become apparent, and he advanced several explanations for their abundance, some of which were to echo through later Maya scholarship:

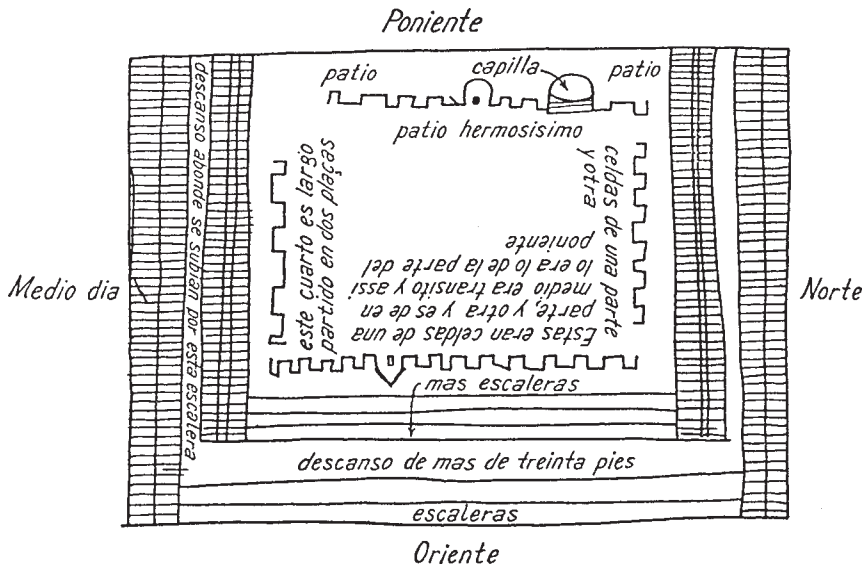
- (1) that lords wanted to keep commoners occupied;
- (2) that the Maya were so devoted to their deities that they compulsively built religious structures;
- (3) that Maya communities were often moved and so new buildings were frequently erected;
- (4) that earlier Maya were superior in size and strength to their descendants and so, by comparison, built excessively.

Interestingly, as the last explanation suggests, Landa drew what we now know to be a correct conclusion: those responsible for the abandoned architectural complexes that dotted the landscape of Yucatan were the ancestors of the sixteenth-century Maya. From the beginning the Spanish also distinguished a “little tradition” of Maya commoner architecture, mainly consisting of pole-and-thatch dwellings, from the “great tradition” of temple/elite architecture.² It is the latter, of course, that until very recently has most preoccupied archaeologists.

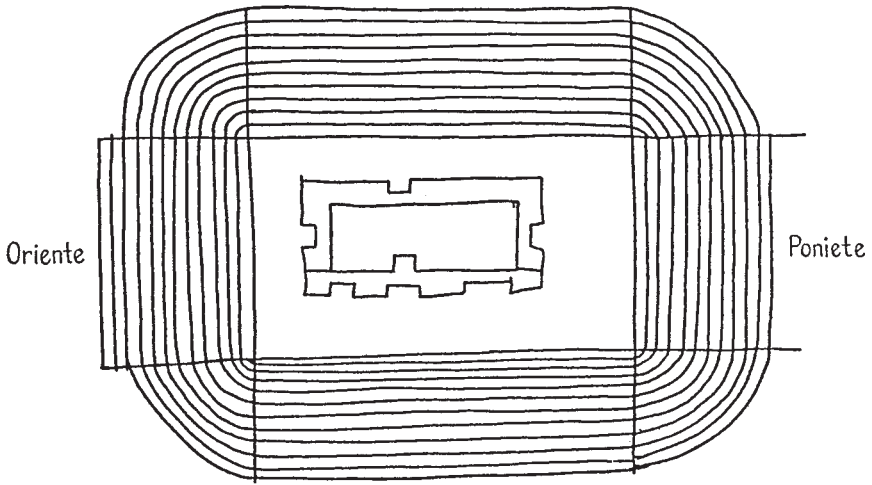
As early as the sixteenth century, growing awareness of the enormous territorial spread of the elite architectural tradition helped define the Classic Maya culture area. In 1576, Diego García de Palacio visited the ruins of Copan, 640 km southeast of the colonial capital of Mérida. Here he recorded a local legend that the city was founded and built by migrants from Yucatan, a claim that Palacio seems to have found plausible because of the similarity of the architecture in Yucatan and Honduras.

Palenque, discovered by Europeans in 1746, was the first great Classic center to capture the attention of scholars. After several other preliminary visits, a royally mandated Spanish expedition in 1787, led by Antonio del Río, collected objects and carried out excavations. Its goal “to illustrate the origins and history of the old Americans” (Hammond 1983: 9) probably qualifies this effort as the first program of problem-oriented research in the Maya lowlands.

² For the origins of these concepts, see Redfield (1957: chap. 3).



A



B

Fig. 2 Landa's (1941: 174, 178) plans of structures at (a) Tiho and (b) Chichen Itza.

Architectural drawings much more sophisticated than Landa's were made. Equally important were the illustrations and samples of sculpture and glyphs obtained (Stuart 1992: 5–6), which helped to establish Palenque and ruins like it as repositories of ancient Maya art and inscriptions. Juan Galindo's later documentation in 1834 of sculpture and glyphs at Copan that were identical to those of Palenque served to reinforce the perception of widespread Maya cultural uniformity (Graham 1963).

In the latter half of the nineteenth century, certainly in large part because of the descriptions of Stephens (1969) and Catherwood, Maya architecture played a distinctive role in the formulation of early anthropological theory, most notably in the writings of Lewis Henry Morgan. By that time, the splendors of the Mesoamerican architectural tradition were widely recognized and posed a potential embarrassment to Morgan's developing scheme of unilineal evolution, in which house form reflected social organization and, in turn, evolutionary stage.

Morgan (1965 [1881]) believed that the most highly evolved New World societies were egalitarian tribal confederations and that the most complex constructions were large communal family dwellings. Although he could dismiss Spanish accounts of the Aztec built environment because it was largely destroyed, Maya architecture presented a thornier problem. Morgan, who never traveled in Mesoamerica, knew that Maya buildings were impressive, numerous, and well preserved. He accorded the Maya high marks for stonework but confidently asserted that most major ruins had been recently abandoned and that they functioned as "communal joint-tenement houses" of essentially egalitarian people who lived together for defensive purposes. Carved stelae and associated altars at centers such as Copan were similarly dismissed as grave markers of influential men. Although this is a particularly wrongheaded example of forcing fact to fit theory—see Thompson (1892) for a spirited rejoinder—we should not be too hard on Morgan, who at least thought that people lived in Maya centers, a position rejected by some later Mayanists.

Systematic Maya archaeology began in earnest in the 1880s, and until the 1960s research focused almost exclusively in one way or another on monumental architecture (some significant exceptions are mentioned below). Only a very brief summary of this period is possible here.³

Until the mid-1920s archaeologists were preoccupied with exploring and mapping large sites, and large-scale excavations were few except when clearing

³ For excellent discussions from which much of my own summary is taken, see Black (1990, n.d.).

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for restoration. Centers were seen as repositories of art, dates, and written inscriptions, and it was these that archaeologists most avidly sought. During the succeeding three decades (1925–1955), approaches to Maya architecture are reflected in four Carnegie Institution projects.

Chichen Itza

At Chichen Itza (1924–1936), the most ambitious of these projects, work “focused on the excavation, restoration, and recording of the architecture and associated sculpture, inscriptions, and artwork” (Black n.d.: 83). Restoration was overtly calculated to attract tourists. Art and monuments aside, the main intent of the Chichen Itza effort was to link architectural patterns to ethnohistoric accounts of the Maya “new empire” and incursions of Nahua speakers. Attempts at large-scale mapping were largely confined to the site core after archaeologists recognized that smaller structures extended out indefinitely from the center.

Uaxactun

Because of the remoteness of Uaxactun during the years of the Carnegie project there (1924–1937), restoration and even conservation of architecture were not major issues. Uaxactun was known to have eighth-cycle dates and so was assumed to be an extremely old site. Thus, excavation there complemented research at Chichen Itza in the sense that the combined efforts bracketed most of Maya culture history as then known. One goal was to expose large architectural features; another was to trench buildings and plazas for stratified ceramic deposits to establish a basic ceramic sequence for the Peten. Built forms thus constituted the “containers” for artifacts, caches, and burials useful in reconstructing culture history.

Copan

Excavations at Copan (1935–1946), as at Chichen Itza, heavily emphasized mapping of the site core, recording of monuments and inscriptions, and restoration. One innovation was extensive tunneling for architectural stratigraphy.

Mayapan

The last of the Carnegie projects, at Mayapan (1949–1955), did produce some innovations. Compared to the other centers, Mayapan had little time depth and was not blessed with much in the way of large architecture, inscriptions, and art. What it did have was dwellings. Much more than the other projects, work at Mayapan emphasized the mapping and excavation of residences and so

contributed considerably to settlement archaeology. Even so, the main goal was to supplement ethnohistoric accounts with archaeological data, although systematic ways of making this linkage remained undeveloped.

All these research efforts had in common a general lack of specific research design. As Black (1990: 261) notes for Uaxactun, "one thing led to another." For example, architectural patterns with possible astronomical implications noted during mapping prompted the excavation of Group E. Nor, reading the reports, is it easy to understand what was done: "Methodology was simply not considered the proper subject of Maya site reports" (Black 1990: 266). No project systematically investigated the functions or meanings of Maya buildings other than by loosely linking them to ethnohistoric accounts. The intellectual framework was distinctly culture historical, and work focused on large built forms at site cores. In all projects except Uaxactun, there was a strong tension between excavation and restoration.

Some of the most useful and enduring results were by-products of architectural excavations, such as the ceramic sequences created for Uaxactun and Copan. What we now see as innovations were ancillary efforts, such as the small-structure surveys and housemound excavations at Uaxactun (Ricketson and Ricketson 1937; Wauchope 1934), and were not followed up until much later.

Tikal

The University of Pennsylvania's Tikal project (1956–1969) formed a bridge between the great institutional era and more recent Maya research. In many respects, the Tikal project continued the earlier tradition of large architectural clearing and trenching based on only the most general of research designs and culture-historical goals. The enormous stratigraphic excavations in the North Acropolis, recently published by William Coe (1990), best exemplify this dimension of the project. Among many innovative approaches to architecture were the accurate mapping of a large cultural landscape, including peripheral areas, and extensive testing of many classes of buildings that contributed to the understanding of structure functions and demographic reconstructions. More than 200 monuments were recorded, repaired, and reset, and many tombs were found in architectural contexts. By the latter half of the project, new insights into epigraphy and art fostered unprecedented dynastic and historical reconstructions. Also integral to the project was restoration, done in large part to establish Tikal as a major tourist attraction.

The 1960s inaugurated the most recent era of Maya archaeology, characterized by a veritable explosion of research. Most of the resulting new information

and interpretations bear directly or indirectly on architectural themes and issues. Even a cursory summary of this period is, unfortunately, far beyond the scope of this paper, although much of it is summarized in the following contributions to this volume. Readers interested in additional detail are referred to Stephen Black's (n.d.) excellent historical review of field methods in Maya archaeology and Deborah Nichols's (1996) comprehensive overview of settlement archaeology in Mesoamerica, including the Maya lowlands.

ARCHITECTURE AND THE ARCHAEOLOGICAL RECORD

We now turn our attention to some unique features of architecture that have made it such an attractive archaeological resource.

A dominant methodological theme of the past 25 years has been the transformational processes that have formed the archaeological record. One issue is place—how did something come to be where we found it? Another is association—do things found together relate to each other behaviorally and chronologically? More fundamentally, what processes formed the archaeological patterns we recovered, and are these patterns meaningful and useful in reconstructing the past? Increased awareness of the complexity of transformation processes has made archaeologists wary of facile answers to these questions, particularly with regard to portable artifacts.

One of the allures of the built environment is that it is much less affected by such transformations than other classes of material remains. One does not have to worry about how Maya temples or the stone platforms of Maya houses came to be where we find them. Such structures sit solidly and reassuringly where they are precisely because ancient people chose to build them in particular places. With proper excavation and chronological controls, the broader patterns or associations inherent in large, multistructure architectural programs are similarly recoverable. Whether on the group level or on that of individual structures, spatial configurations derive clearly from ancient intentions. Careful attention to such intentional arrangements can have enormous payoffs. Proskouriakoff's (1961: 14) insights into the meanings of glyphs at Piedras Negras, for example, were sparked as much by the arrangements and associations of built forms (stela sets and platforms) as by their symbolic content.

This is not to say that architecture is immune to the noise of transformation. Scarborough (1991: 129) characterizes Maya architecture as a *transitory* medium. What he means is that, to Maya builders, even the largest constructions, with some significant exceptions, such as ballcourts, were fair game for elimination or modification. Generations of archaeologists have remarked on this inherent plasticity of the Maya built environment and the unusual degree to

which, compared to ancient builders elsewhere, the Maya destroyed, altered, or abandoned existing structures. Old buildings were frequently remodeled and used for new purposes. Temples and houses fell into disrepair and were razed for their materials or buried by later constructions (Fig. 3). The effect for archaeologists, of course (in the absence of complete destruction), is quite the opposite of transitory. Not only are buried or recycled structures preserved, but they constitute a permanent, detailed, diachronic record of how the Maya used and thought about their built environments. Such a record not only can inform us about architectural transformations and stratigraphic implications, it also reflects important aspects of the dynamics of culture history and cultural process.

Architecture also looms large in the archaeological consciousness because of the nature of the patterns it presents to us and the processes of recovery, analysis, and description that we use. Classic Maya architecture, with some exceptions, such as old, deeply buried structures, is quite easy (albeit expensive and sometimes dangerous) to excavate. After only minimal stripping, architectural configurations are often quite clear, aesthetically pleasing, and intuitively (although often deceptively) intelligible. Indeed, much detail concerning the built environment is visible without excavation and can be quickly and compellingly recorded from surface inspection (e.g., see the superb drawings of Holmes 1895). Other classes of artifacts and features are much more difficult to recover, document, and analyze properly. Architectural descriptions and analyses consequently dominated the traditional Classic Maya literature, and architectural summaries usually appeared either in the absence of information concerning other associated classes of artifacts or long before such materials were published.

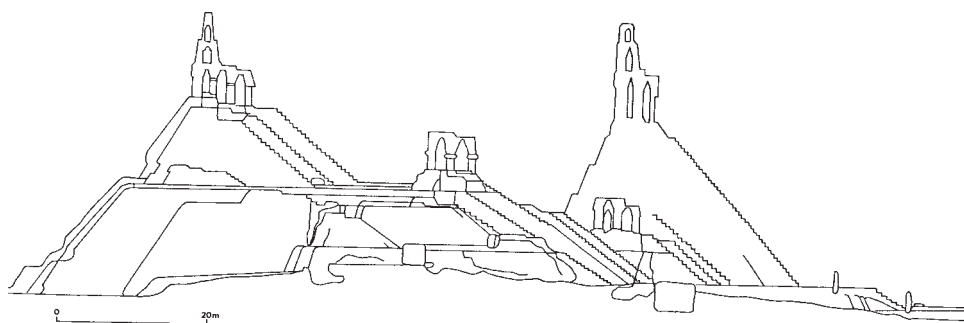


Fig. 3 Schematic and simplified north-south section of North Acropolis at Tikal, showing architectural stratigraphy (adapted from Culbert 1993: 50).

Archaeologists sometimes distinguish between *hard* deposits, of which architecture and monuments are prime examples, and *soft* deposits, such as middens, burials, or small features. Hammond (1983: 4) notes that because of the richness of the Maya archaeological record in architecture, dates, and inscriptions, Mayanists remained “immersed in facts long after those less well endowed materially had been forced to seek new ways of interpreting their material.” Here he echoes much earlier criticisms by Taylor (1948) focused on the Carnegie projects.

Inferring Organization and Meaning

A fundamental hypothesis is that the relationships between humans and their built environments are dynamic and interactive. Much of the research carried out by architects, geographers, and ethnographers investigates whether, and how, the forms of the built environment are congruent with cultural, organizational, and behavioral features of the societies and people they study. Most of these efforts have one profound advantage over those of archaeologists—both sides of the equation, what Schiffer (1987) calls the “systemic context,” are reasonably well known. Because research focuses on modern systems or ones documented by historical or ethnohistorical data, both the forms of the built environment and the cultural and organizational features with which they presumably interact are so well understood that conclusions are very convincing. Contrast, for example, Fairclough’s (1992) spatial analysis of the changing plan and functions of a Scottish castle between a.d. 1300 and 1575, with Foster’s (1989) application of the same techniques to an entirely prehistoric Scottish Iron Age enclosure.

Archaeologists, unlike architects or geographers, usually have access to only one dimension of the relationship—the built environment, which itself is imperfectly preserved, sampled, and understood. We assume that the built environment reflects ancient patterns of behavior, organization, and meaning in coherent ways, and we try to use it to reconstruct these features of past societies. Some anthropologists (e.g., Douglas 1972) have argued that in fact many important aspects of social organization are not recoverable from residues of architectural arrangements. Even if such criticism is excessively pessimistic (and I think it is), there remains an obvious risk of circularity in the archaeological enterprise: behavior, organization, and meanings reconstructed *from* ancient built environments will obviously be congruent *with* them.

Fortunately, there are three ways out of this impasse. First, we can reconstruct meaning and organization from evidence not directly tied to the forms of the built environment themselves. Certainly the Classic Maya left us abun-

dant resources to do so. Epigraphy and iconography, for example, provide compelling details of the elite components of Maya society, as shown by other chapters in this volume. Another effective tool is ethnoarchaeology, even though in the direct historical sense we can study only modern Maya of comparatively low status. Finally, we can use methods and models derived from wider studies of historical or modern interactions between humans and their built environment to investigate past interactions, although to date these have not yielded anything like universally valid principles to understand the use and meaning of social space.

Design and the Built Environment

One concept intimately connected with analyses of built environments is design, reflecting the idea, particularly strong among some architects and planners, that such environments are the purposeful creations of human actors. Rapoport (1990), as we already saw, relegates unintentional landscape modifications to the ecological environment because they are not purposefully designed and built.

Design is an attractive notion for three reasons. First, humans unquestionably do devise and create elements of the built environment in purposeful ways. Second, to the extent that architectural components directly reflect integrated human intentions, they can be regarded as texts, preserving messages to be deciphered. Finally, existing or ancient designed environments can serve as models for social planners concerned with the design of future facilities (e.g., Fairclough 1992: 349). This notion of design must be handled very carefully, because it is a key to function and meaning, but it also can be very misleading given the processes that formed many Maya built environments.

The basic problem is that the great centers most heavily studied by Mayanists, such as Uaxactun, Tikal, Palenque, and Copan, have histories. Whole site layouts, or large portions of them, are not designed systems of architecture so much as historical accretions, with all of the noise and sloppiness that characterize evolved, as opposed to engineered, systems. Large-scale accretions consisting of many structures built at different times cannot easily be read as texts, although some Mayanists have attempted to do so (e.g., Ashmore 1992), because they are so garbled by historical contingency. Whatever freedom the original builders enjoyed to impose planned building programs on their landscapes became more and more constrained through time. Our ability to decipher such historical palimpsests depends on (among other things) adequate control over chronology of construction and use.

One reason why Maya elite architecture is durable is that it is big. The com-

bination of durable materials and large scale means that, unlike many other kinds of artifacts, Maya elite architecture curates itself—that is, there must be very active and energy-consuming human intervention if large architecture is to be removed, altered, or covered over. Archaeologists frequently calculate the energy necessary to construct, maintain, and renovate large architectural monuments (Abrams 1994; this volume). The other side of the coin is the inertia thus created. Large architecture (and here I include “capital” investments such as agricultural terraces or drained fields) has more inertia, and hence more “drag,” on human sociocultural systems than any other form of material culture. Inertia is embodied not only in masses of stone. Symbolic messages encoded in the built environment constitute another sort of constraint that increased through time, especially because they are, as we shall see, so heavily personalized and customized to historical incident.

These commonsense observations do not deny that generation after generation of Maya builders intentionally conceived, designed, and carried out ambitious building programs or that these had functions and meanings that may be accessible to us. They do suggest that if we want to talk about design and intention we had better make useful distinctions between different kinds of built forms as units of analysis. Clearly the most secure such units are individual constructions (or closely integrated sets of them) built over very short periods of time, such as the final-phase ballcourt at the Copan Main Group or the paired Temples I and II at Tikal. Such built forms offer particular potential for innovative analysis of plan and function. Scarborough (1994) has recently suggested that some carefully planned layouts are parts of elaborate water-management systems.

Good non-Maya examples are the enormous adobe enclosures at the Chimu city of Chan Chan on the north coast of Peru (Fig. 4). These were apparently the establishments of individual Chimu kings, with a new one built during each reign. Because such enclosures were highly planned and had short life spans, they lend themselves to architectural analysis as designed, functional systems. In an innovative application of access analysis (Hillier and Hanson 1984), Moore (1992) was able to test and falsify a detailed hypothesis concerning the administrative functions of one class of rooms in such enclosures. Such analyses are much less suited to complex Maya royal palaces that have long histories of accretional growth, such as the Central Acropolis at Tikal (Fig. 5). Hammond (1972) is one of the few archaeologists who have attempted to apply such analysis to Maya centers (at Lubaantun).

At long-occupied centers such as Tikal or Copan, Maya planners increasingly had to adapt their efforts to the solid realities of earlier constructional

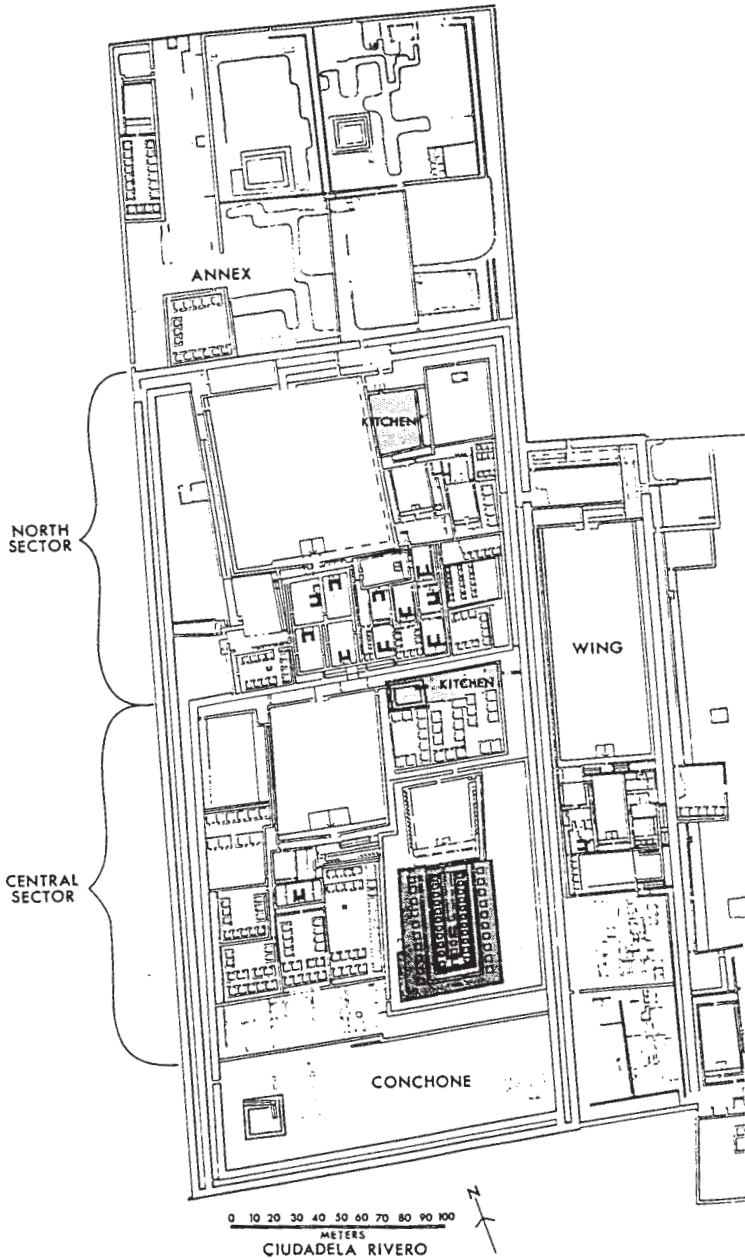


Fig. 4 Royal compound at Chan Chan. This complex of structures and rooms was presumably built at one time to a predetermined plan (after Moseley and Day 1982: fig. 3.2).

episodes, which acted as frames or containers for subsequent ones. The Late Pre-Classic fortifications of Becan, for example, “contain” later Classic constructions in a literal sense (Fig. 6). But preexisting architecture provided opportunities as well. By using earlier buildings as armatures for later ones, Maya builders could make more massive and visually imposing statements while reducing energy costs. An interesting issue is the degree to which they compromised their abstract designs to realize such advantages and hence distorted their messages.

Perhaps compromise is the wrong word, however, because there were also more positive and culturally more significant opportunities that we are only beginning to understand. Most important is the calculated integration of older built forms and their psychologically powerful associations into new building programs. For example, residential places where ancestors were venerated were sometimes transformed into more formal public or ritual places, undoubtedly retaining their original sanctity even as function changed (McAnany, this volume). Maya planners thus turned potential obstacles into symbolic resources by incorporating them into their plans, thereby producing complexes of architecture that were transgenerational repositories of information.

A great deal of variation and opportunism is evident in architectural accretions from one center to another. Tikal grew both upward, as older buildings were buried by later ones, as in the North Acropolis, and outward, as spatially distinct new complexes were completed. The Copan Main Group, by contrast, grew principally through vertical accretion, probably because neither the natural environment nor the Late Classic social environment favored lateral expansion.

Elite constructions most amenable to design analysis are logically those imposed on essentially vacant landscapes that offered wide scope for builders. Unfortunately, these tend to be either very early (especially Pre-Classic) phases of construction that are difficult to recover intact at sites with long histories or smaller, single-phase elite centers that archaeologists have tended to avoid. Here though, there are some real opportunities in some of the second-level sites in the Puuc and Río Bec regions, where late, short-lived centers proliferated. These, more clearly than the great southern centers, should preserve comprehensible design patterns.

Much of the literature on order, organization, activity, and meaning in the built environment derives from ethnographic studies of nonelite domestic units. Paradoxically, the ancient Maya who had the most latitude to arrange their built environments as they wished are those we study least. Intentional patterning should be most clear in the scattered household remains of rural Maya

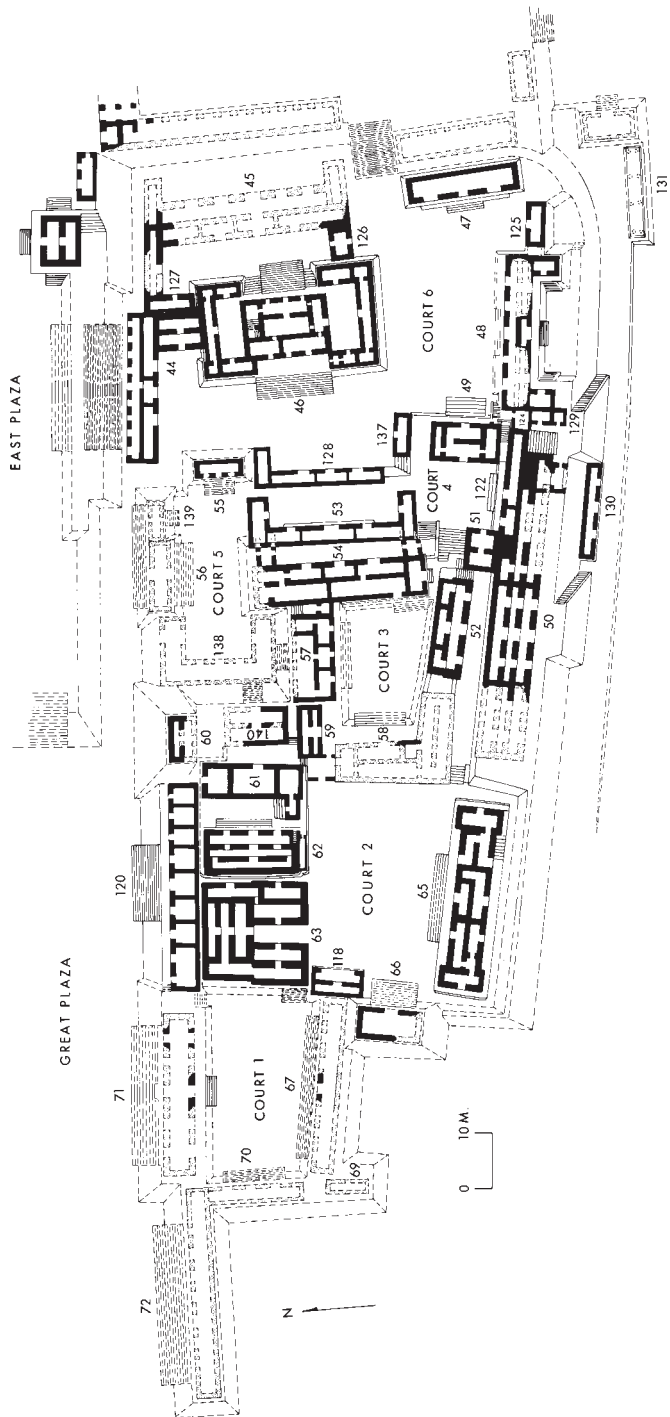


Fig. 5 Plan of the Central Acropolis palace at Tikal. Courtesy of the University Museum, University of Pennsylvania.



Fig. 6 Plan of the fortified center of Becan, showing Classic architecture inside the Pre-Classic ditch and parapet (after Marcus 1992: fig. 24).

commoners. Construction, reconstruction, or relocation of commoner household facilities was, in comparison to that at elite centers, less constrained by investment of energy and preexisting architectural features. This is not to say that rural Maya households lacked histories but rather that their histories were more attenuated than those of larger royal/elite places and their built environments had less inertia.

It follows that social organization is more likely to be reflected in small structures that have short use lives and rapid turnover, rather than large, public architecture such as temples. The latter may be used for centuries even as social organization changes. Notre Dame Cathedral is much the same as it was in the twelfth century, but those who worship in it today share few social and residential arrangements with its original builders.

Commoner Maya domestic architecture also has several practical advantages for students of built environments. Architecture used by Maya of low status is abundant and, except where deeply buried, cheap to dig. Large samples can thus be acquired, and reconstruction is unnecessary. On the other hand, details of function are difficult to determine (e.g., Webster and Gonlin 1988; Gonlin n.d.), unless sites are unusually well preserved, as at Ceren (Sheets 1992). There is also a real paucity of symbolic information compared to that present at elite sites. Here though, much more may be learned through fine-grained analysis of artifacts and subtle architectural features by using ethnoarchaeological models.⁴

Function and Contextualization

The general functions of several classes of Maya structures have long been known or assumed. These include temples, ballcourts, and some specialized features, such as sweatbaths. On the other hand, there has been considerable confusion concerning other classes of structures, such as elite residences (Satterthwaite 1935; Coe 1956; Tourtellot 1992). I believe the principal reason why archaeologists have had difficulties investigating the function and meaning of some components of the Classic Maya built environment is incomplete contextualization. By contextualization I mean two things: (1) the association of built forms with other artifacts and features, and (2) the ability to plan and carry out problem-oriented research with a reasonable knowledge of the variety, spatial distribution, and chronology of built forms on the cultural landscapes of particular Maya polities. The issue of palace architecture provides a good example.

Elite Residences

The term palace crept into the Mayanist lexicon early on to denote a variety of masonry structures (as opposed to a specific structure type) that seemed not to be temples.⁵ Often ornate, vaulted, and constructed of fine masonry, palaces have low substructures compared to temples. Superstructures are long rectangular buildings with axially arranged rows of rooms often of modular configuration. Sets of palace structures, distant from monumental site cores, were often called “minor ceremonial centers.” Although many such buildings were mapped, cleared, excavated, and restored, the term palace came to be a default category

⁴ For a Near Eastern example, see Kamp (1993).

⁵ For a good review, see Kowalski (1987: 75–86); for discussion and floor plans, see Harrison (1986).

because no clear functions were agreed upon. For example, Satterthwaite (1935: 4), who excavated two palace structures at Piedras Negras, insisted that no functional significance whatever should be attached to his use of the term.

Part of this confusion resulted from the vacant ceremonial model, according to which the rulers and nobles of contact period times (who obviously lived in elite residences as described by Cortés above) had no obvious counterparts during the Classic period. If there were no kings or nobles, what was the sense of the term palace? If Classic palaces were residences at all, they must have been more like priestly dormitories. But even as this model was being abandoned, confusion continued. Coe (1956: 387) asserted that “Structures clearly identifiable as royal residences are absent in the Classic Maya area” and went on to surmise that Maya rulers lived in perishable wooden palaces. Still later, Adams (1977: 152) claimed that no palaces were known at Copan. Most recently, Tourtellot (1993: 230) observed that we have great trouble recognizing the residences of Maya elites.

Two levels of contextualization problems are at work here. First, as we have already seen, early excavators usually did not recover or record the kind of artifacts and features necessary to demonstrate residential (or other) functions—i.e., they did not adequately recover and associate both “hard” and “soft” deposits. Fox (n.d.), for example, makes the point that ballcourts were widely investigated as core elements of the Maya built environment for many years but that artifacts and features associated with them were often unrecovered or unreported. His criticism is valid for many other classes of architecture as well.

More important, however, were the difficulties archaeologists faced in evaluating the built forms they dug (or, more importantly, proposed to dig) within the larger context of mapped regional settlement patterns. Extensive and systematic surface surveys are fairly recent innovations in Maya archaeology. Once completed, as at Copan (Fash n.d.; Freter n.d.), they allow predictions about the relationships between residence and rank based on the knowledge of a wide variety of built forms. By using one such model, several elite/royal groups that accord well with the palace definition have been chosen and excavated at Copan (Willey et al. 1994; Webster 1989; Andrews and Fash 1992). These places demonstrably had elite residential functions. Such subroyal elite places are common on the Classic Maya landscape. They may not be perfect analogs of royal residences, but they clearly help us understand the general class of “palace” architecture and, in the process, Maya sociopolitical organization.

Fortunately, both problems of contextualization are being resolved as the maturation of Maya archaeology progresses. Artifacts and features are now routinely recorded, and an impressive range of settlement data is available.

BEHAVIOR, COGNITION, AND MAYA BUILT ENVIRONMENTS:
INFERENCES FROM ICONOGRAPHY AND EPIGRAPHY

Archaeologists are increasingly enjoined to investigate not only behavioral but also cognitive dimensions of past sociocultural systems (Leone 1982; Hodder 1986; Renfrew and Zubrow 1994). Unlike most prehistoric archaeologists, Mayanists are uniquely situated to reconstruct not only what people did but also some of the ways they thought. Although we cannot directly observe how people behaved in Classic built environments or directly know how they conceptualized them, we fortunately have two lines of evidence that are extremely revealing of both function and meaning. The first is the multitude of carved, woven, modeled, or painted images that the Maya created. Equally important are the inscriptions often intimately associated with such images.

Some vehicles of iconographic and written expression, such as façade sculpture, graffiti, and wall murals, form integral parts of buildings. Others, such as large stelae and altars, were strategically sited and minimally portable. In either case, they are often found in their original contexts. In addition, there are portable objects, such as figurines, small carvings, and, most importantly, painted vessels, which often lack provenience. All of these forms convey symbolic information as the Maya themselves wished to display it. I will briefly summarize a few of the extremely rich implications of this symbolism later discussed at length in other papers.

Performance

Classic Maya built environments are consistently depicted as containers for the performance of human and divine dramas, centered on sacrifice, prestation, tribute giving, and ball playing. Although many depictions appear realistic and representational, they are actually highly formulaic and structured by tightly controlled conventions (Houston, this volume). Actions are often shown associated with buildings or parts of buildings, but construction elements as frames for action are typically simplified and (from our perspective) distorted. In virtually all cases, the focus is on the actors and the relationships between them rather than on the setting, which is typically shown very schematically. Exteriors are more important than interiors. Close inspection of performance scenes does, however, reveal a great deal about the perishable accoutrement of interior and exterior spaces, such as pillows, hangings, scaffolds, arbors, and portable structures, such as litters. One such scene brought to my attention by Stephen Houston shows ball-game equipment inside a palace (Fig. 7).

Restructuring of existing built forms was done partly to improve them as



Fig. 7 Polychrome vessel showing a palace scene that includes ball-game equipment. The curved yoke (*yugo*) is shown on the right in front of what appear to be stored ball-game costume elements (after Coe 1975: pl. 14).

stages for public drama. For example, Ruz Lhuillier (1973: 228–240) illustrates three major exterior modifications of the Temple of the Inscriptions at Palenque (Fig. 8). At each stage, the superstructure temple, presumably the most sacrosanct component, was left unchanged, whereas substructure terraces and stairways were heavily altered in ways probably intended to make them more effective and dramatic stages for human actors.

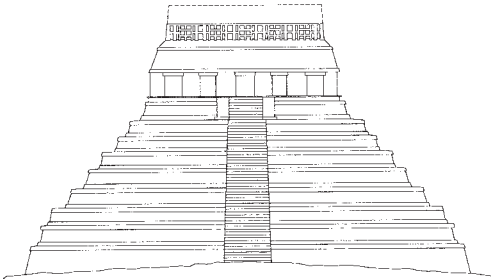
Although not stressed in this volume, the Maya also built distinctive “connective” architectural features, such as causeways and roads, that bind together architectural complexes and sometimes distant centers. Although we have little information on how these were conceived or used, they undoubtedly had heavy symbolic and performance functions.

Metaphor

The Classic Maya clearly conceived of much of their built environment in metaphorical terms (Taube and Houston, this volume). The built environment

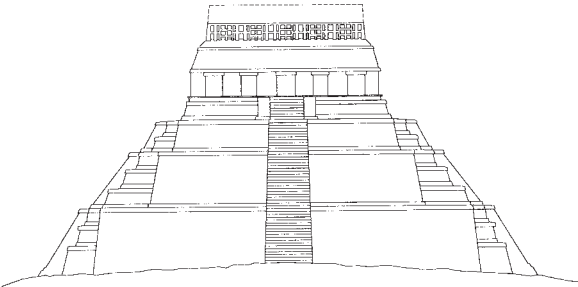
Temple of the Inscriptions
Palenque, Mexico
Stage I

Scale in Meters
0 5 10



Temple of the Inscriptions
Palenque, Mexico
Stage II

Scale in Meters
0 5 10



Temple of the Inscriptions
Palenque, Mexico
Stage III

Scale in Meters
0 5 10

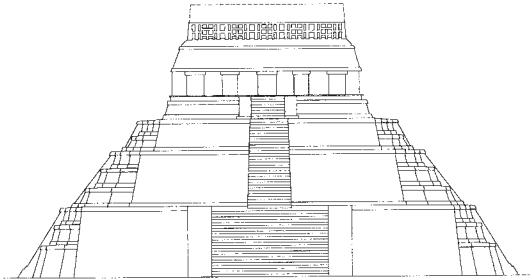


Fig. 8 Temple of the Inscriptions at Palenque, showing three stages of alteration of its substructure (computer images by Pamela Ryan, adapted from Ruz Lhuillier 1973: figs. 259–261).

itself is often characterized as a metaphor for order, in contrast with the disorder and danger symbolized by the natural environment. Karl Taube (personal communication, August 1994) points out that modern Yucatec Maya conceptualize space as “domesticated” versus “wild,” a point also recently made by Stone (1995: 15–17). Maya temple and palace architecture incorporates powerful house and hearth metaphors, demonstrating the intimate developmental and symbolic connections between the great and little traditions of Maya architecture. Such metaphors also express cosmic structure and the related themes of centrality and order versus disorder.

Personification

Both epigraphic and iconographic evidence show that the Maya personified or customized their built forms to a remarkable degree (Stuart and Taube, this volume). Construction and decoration of buildings were tailored to particular historical incidents. Special dedicatory rituals animated structures and many other kinds of objects by “burning” (or censuring) them and by bestowing personal names on them. Buildings may actually have been “alive” from the Maya perspective. They were also personified through identification with rulers or other notables and the traditions of dynastic power such people represented. Conversely, important people sometimes seem to have impersonated buildings, just as they impersonated deities. Other incidental symbolic information includes identification of individuals who were somehow “responsible” for a building—perhaps architects or builders. Inscriptions suggest that building projects at some centers were supervised and perhaps initiated and dedicated by overlords from elsewhere. For example, Stephen Houston (personal communication, August 1994) thinks that a Yaxchilan lord was the principal patron of events shown in the Bonampak murals, in which a Lacanha lord also figures as a protagonist.

Equally revealing is what is not shown. There are few realistic depictions of whole buildings or building elements, nor are scenes of actual construction common in Classic Maya art, although Stephen Houston has pointed out to me conventionalized images of plastering and lintel raising from the Madrid Codex (Fig. 9).

All these rich inferences drawn from Classic Maya art and writing have one obvious limitation—they refer almost entirely to the elite traditions of Maya society. Archaeologists have put small structures to rather different uses.

SMALL STRUCTURE ARCHAEOLOGY

Maya elite buildings impress us because of their scale, sophisticated con-

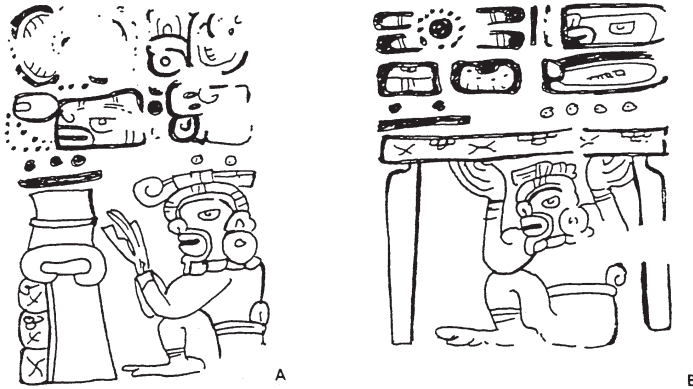


Fig. 9 Figures from the Madrid Codex (M15a, 21b) showing deities (a) plastering and (b) raising the lintel of a building. Drawings by Stephen Houston.

struction, and symbolic displays. Peripheral, small Maya structures are striking only because of their numbers. As we have already seen, Spanish chroniclers quickly distinguished between Maya elite and public architecture on the one hand and the residences of common people on the other, presumably because the latter were conspicuous components of the sixteenth-century cultural landscape. Archaeologists have long been aware of the ubiquity of small built forms and presumed them to be the remains of houses, but only recently have they begun to investigate systematically these humble components of the Maya built environment.

Small buildings, especially the domestic facilities of common people, are often called “vernacular structures” by architects. According to Brunskill (1978: 25–26) vernacular structures share the following characteristics: they are usually built of inexpensive local materials by amateurs (that is, nonprofessional builders) who are guided by local conventions, and function rather than design is the principal concern. He contrasts such buildings with “polite” structures—i.e., those that are more expensive and are wholly or partially planned and constructed by professionals to conform to more ideal, cosmopolitan styles in which aesthetics are as important as function. Whether these distinctions, drawn from the European architectural tradition, are valid for the Maya is questionable. Possibly the Maya saw more continuity, symbolic and otherwise, between common domestic and elite/civic architecture, as suggested by the house metaphors already discussed, and were less affected by cosmopolitan “fashion.” In

any case, there is a continuum between small/vernacular and large/polite forms, and here I emphasize the former.

Early, often desultory, excavations of small vernacular Maya structures (Hewitt 1912; Thompson 1892) lacked settlement context. For example, Thompson (1931) seems to have begun his investigations of small groups in British Honduras with the notion that they were residences of common people, but he quickly decided that their scale indicated they belonged to “occupants of wealth and rank” (1931: 237). In a pioneering effort, Wauchope (1934) excavated five small structures at Uaxactun within the area earlier surveyed by the Ricketsons (1937), but no one followed up his work. Apart from those reported in the unpublished work of Bronson (n.d.), the “small” structures excavated at Tikal (Haviland 1985) in fact are neither very small nor very peripheral.

Small structures have been neglected for several reasons, apart from a general fascination with Maya elite culture: (1) their general functions were not at issue; (2) they were unlikely to yield dated monuments, art, and well-stratified deposits; (3) Classic Maya commoners were thought to form a passive and comparatively homogeneous and unchanging social component little different from that described in ethnohistoric and ethnographic accounts; and (4) unlike large buildings, small structures often lacked intuitively meaningful patterns observable on the surface.

Small structures eventually engaged the attention of archaeologists not because of what they themselves could tell us but because they both posed a problem and offered the key to its solution. The problem was essentially demographic. Early surveys such as the Ricketsons’ suggested that Maya sustaining populations (estimated from housemound counts) were much higher than expected—certainly higher than those supportable by the swidden systems described for the ethnohistoric Maya. If Classic populations were so high, how were they supported? The solution was to find out how many such structures were contemporaneous on the landscapes of Maya polities at various periods and use these counts to estimate population density and change. Appropriate alternative subsistence models could then be devised.

Beginning in the 1950s this goal was pursued mainly through surface survey and test excavation. Only very recently have a few small Maya sites been extensively excavated (Manzanilla 1987; Webster and Gonlin 1988; Gonlin n.d.; Johnston n.d.) (Fig. 10). Small-structure archaeology has had several effects on built-environment research apart from its implications for demographic and subsistence issues (Culbert and Rice 1990). The residential functions of small structures and the variation displayed within this category of architecture (Gonlin n.d.) have been demonstrated. Investigations of other components of the built

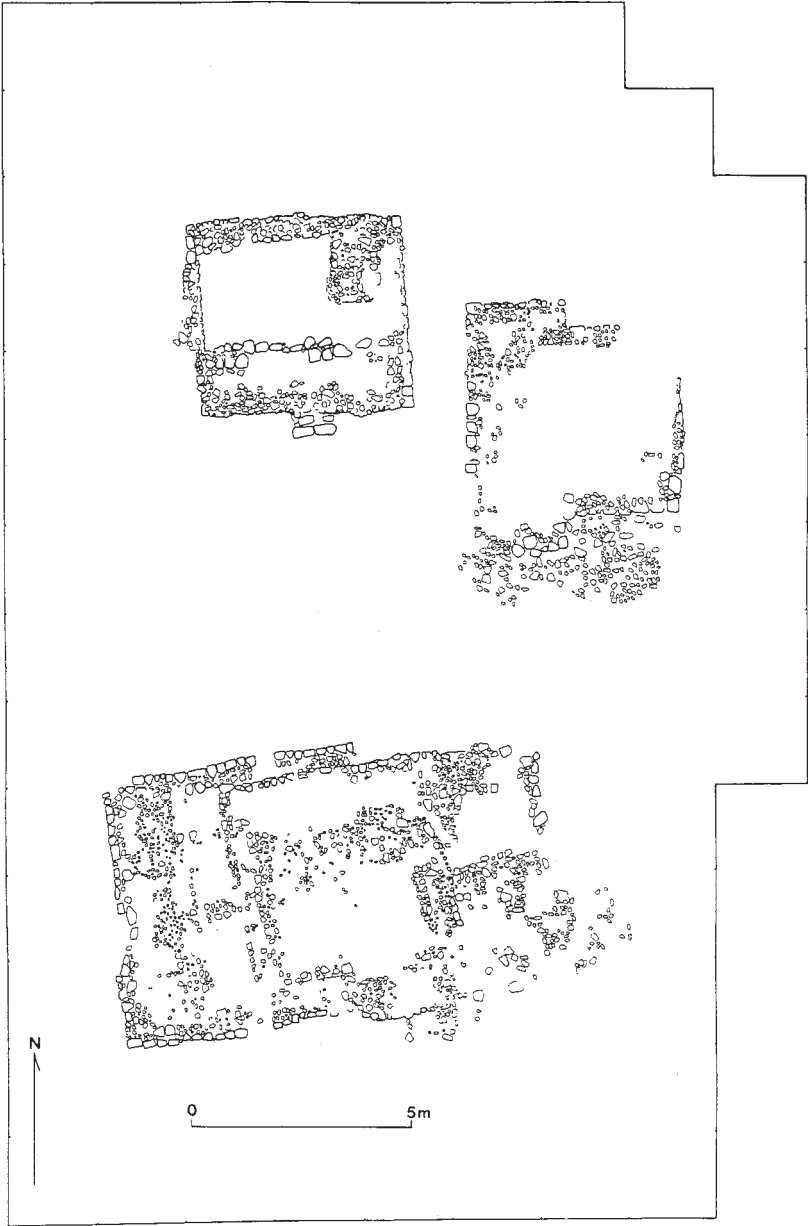


Fig. 10 Plan of small Copan rural site. All that remains are the stone and rubble platforms that supported perishable superstructures.

environment are consequently much more effectively contextualized. Another result has been to emphasize the continuity between small and large built forms and to stimulate research into how, and on what scale, labor was organized and expended (Abrams 1994; this volume).

Patterns or objects of obvious symbolic significance are very rare at fully excavated Classic Maya low-rank houses (Gonlin n.d.), although caches and other offerings do occur. Only when we have large numbers of well-excavated small sites will such scarce symbolic materials begin to make detailed sense. Fine-grained studies of activity areas and use patterns of interior and exterior spaces also might reveal cognitive aspects of past household behavior, and it will be interesting to see if these emerge from the Ceren excavations, where activity areas are very well preserved. Interestingly, the house metaphors associated with large buildings may allow us to work back to cognitive dimensions of commoner housing for which no direct evidence exists.

However we characterize the relationships between Maya little and great tradition architecture, one difference has always been clear—the latter conveys explicit messages of hierarchy and social power, themes to which we now turn.

CULTURE, ARCHITECTURE, AND POWER

Anthropologists analyzing the built environment often employ both utilitarian and symbolic perspectives (e.g., McGuire and Schiffer 1983). Writings of nonanthropologists sometimes reveal a pronounced “culture is a mental template” conception—the idea that “the built environment corresponds to ideal conceptions of social, political, and religious life” (Lawrence and Low 1990: 466). Basic adaptive or behavioral functions are often downplayed or ignored in favor of meaning: “cognitive and symbolic meaning is more important than instrumental function” (Fairclough 1992: 351).

The assumption is that humans plan and construct their built environments according primarily to culturally determined cognitive frameworks; cognition is in turn affected by the built environments. Some modern architects, such as Frank Lloyd Wright, adopted Maya design elements because they perceived universal symbolic and spiritual values in their geometric forms; these forms, it was thought, could revitalize modern society (Braun 1993: 174).

The widely shared conventions and considerable conservatism of Maya elite architecture created, in the minds of some early archaeologists, the impression of a monolithic Maya culture and society, although some thought otherwise. Merwin (n.d.: 102), for example, noted that the many small “independent groupings” of structures in the Río Bec region reflected a landscape of politically segmented ancient polities, whereas the much larger sets of integrated struc-

tures at centers such as Tikal, Palenque, Quirigua, and Copan suggested “a strong, centralized, political or politico-religious organization.”

Fortunately, most Mayanists long ago rejected monolithic conceptions, and now emphasize not only regional and temporal variation among Classic Maya polities but, more importantly, their internal political complexity, factionalization, and dynamism. McGuire and Schiffer (1983: 297) note that architecture is produced by “individuals and social groups making decisions and affecting compromises to achieve various goals.” In other words, ideas always intersect with quite practical considerations. Inherent in this perspective is the built environment as both arena and instrument for the pursuit, expression, and maintenance of power.

In a general comparative overview of monumental construction, Trigger (1990) observes that the built environments of the earliest civilizations include few “civic” amenities available to a wide spectrum of the populace, such as libraries, schools, theaters, or baths (infrastructural efforts such as defensive walls, reservoirs, roads, and irrigation projects are ancillary to his concerns). Instead, large constructions in central places focus on gods, ancestors, kings, and other privileged people. These early built forms may be “public” in the sense that they are constructed by collective effort, may display collective symbols, and are highly visible. They may even have practical civic purposes, such as the storage and redistributive functions of the Sumerian temple. Still, their ritual and royal dimensions are very obtrusive, and they serve most directly the interests of small segments of society rather than some wider citizenry. That emergent elites should differentiate themselves by means of distinctive built forms that serve new instrumental functions and have new meanings is understandable. What needs to be explained is why this requires monumental construction.

Trigger’s answer is that conspicuous consumption of other peoples’ work, including that of skilled builders, is a universal symbol of high status because it violates the laws of least effort. The evolutionary point, of course, is that the effort necessary is not expended by those who make the decisions and most directly benefit from such constructions, and hence it symbolizes concentrated social power. He thus posits a cross-cultural cognitive principle of perception: *scale = power*.

The monumentality of built forms at great Maya centers and the complex symbolism associated with them have long created profound impressions of hierarchy and social power. Landa (1941), as we saw earlier, speculated that Maya lords conscripted the labor necessary for such projects for their own political purposes. Morgan (1965 [1881]), by contrast, denied the use of “enforced labor” because it was at odds with his tribal, kin-based conception of the

evolutionary status of New World peoples. Subsequent analyses of Maya cultural evolution have been heavily conditioned by the implications of a massive and sophisticated built environment. Large scale reflects the scope of communication about power: although some vehicles of information inherent in Maya built forms (e.g., painted, carved, and inscribed murals; lintels and plaques inside temples and palaces) would have been accessible only to elites, monumental constructions are never hidden; their power messages extend to everyone.

Under the old theocratic, vacant ceremonial center model of Maya society, lavish expenditures of energy on huge architectural complexes were explained in terms of collective religious devotion channeled by “bureaucratic priesthoods” (Kidder 1950: 8). The complex messages conveyed by art and inscriptions remained enigmatic because noncalendrical glyphs were not understood. Power in this model was more psychological than real.

Serious cracks in this theocratic façade of Classic society resulted from the excavation of an elaborate burial beneath the Temple of the Inscriptions at Palenque (Ruz Lhuillier 1973). This discovery stimulated Michael Coe (among others) to rethink the increasingly obvious connection between burials and building episodes (Coe 1956). Coe reasoned that if many “temples” really functioned as funerary monuments to deceased individuals, then political power of a more tangible sort must be taken into account:

We have tended to think of the Classic Maya in terms of a stereotyped peasantry laboring in the service of a somewhat Olympian pantheon. However, if the majority of buildings in any one Classic Maya center were dedicated to the future life of certain individuals, then those persons must have possessed a great deal of political power to requisition the enormous amount of labor necessary for the erection of those monuments. In other words, authority may have been vested not only in a priestly class, but in a line of hereditary rulers who perpetuated themselves in the same manner as the Egyptian kings. (Coe 1956: 393)

Here Coe distinguishes between the psychological power of religious devotion and real “political power,” by which he presumably means the power to dominate decision making, command, requisition, and, if necessary, coerce.

The fatal blow, of course, was the epigraphic revolution beginning in the late 1950s, which had two immediate effects: (1) it confirmed that the Classic Maya had dynasties of secular rulers; and (2) it placed Maya society firmly within the much larger comparative perspective of other ancient civilizations (recapitulating Stephens’s sensible view more than a century before). Large Maya architecture had to be evaluated in a new way: as the product of domi-

nant kings and elites who not only organized and controlled labor but did so by political means not wholly, or perhaps at all, consistent with religious devotion. Even more importantly, inscriptions revealed overtly political messages, which in turn caused a reevaluation of Maya art, where political themes also became obvious.

As a result, we are becoming increasingly aware of how much the personification of monumental components of the Classic Maya built environment embody assertions of power. Individual rulers such as Pacal commissioned personal mortuary monuments. These were sometimes finished or altered by successors, who thereby associated themselves with the deceased ruler. New evidence suggests that burial monuments were sometimes commemorated, and possibly built, long after the death of the honored person. Conquerors erected hieroglyphic stairways to celebrate victories, sometimes imposing them on defeated centers, as Caracol did at Naranjo. Lesser elites at Copan flaunted their titles on building façades and carved benches. Although individual assertion is evident in all this, an even stronger element is concern with continuity—rulers and other powerful people contextualized themselves within existing built environments already redolent of historical traditions of dynastic power, sanctity, and symbolism.

Most Mayanists no longer take this emphasis on continuity and order in the built environment at face value. A much more uniformitarian assumption is that “Monumental buildings mask the will to power and the arbitrariness of power beneath signs and surfaces which claim to express collective will and collective thought” (Lefebvre 1991: 143).⁶ What are masked are not only the general stresses inherent in any system of hierarchy but much more subtle processes of status rivalry involving elite factions on both intra- and interpolity levels—processes that probably peaked in intensity during the Late Classic (Webster n.d.).

Building plans, the scale and timing of building events, and the images and symbols associated with them, constitute our best windows into the all-important fine texture of Maya politics. At Copan, for example, the hieroglyphic stairway seems to be constructed as compensation for some kind of interpolity loss of face, whereas the proliferation of carved monuments among lesser Copan elites signals new political assertiveness after this event. Such status rivalry is intimately related to the much greater plasticity of the exteriors of Maya elite structures rather than the interiors.

Unfortunately, our refined concepts of the messages embodied in monu-

⁶ As quoted in Pearson and Richards (1994b: 3).

mental Maya buildings have not been accompanied by systematic investigations into the costs or organization of construction. Even volumetric estimates of construction components are seldom given. See William Coe's (1990) discussion of Tikal Temple I for a notable exception. Because archaeologists routinely take apart large Maya structures and often restore them by using tools and human labor in ways not dissimilar from the ancient Maya, such lack of quantification is puzzling.

Abrams (1994; this volume) has recently developed construction models for Copan based on archaeology, observations of reconstruction, and controlled experiments. Among his findings is that a range of ancient households was constructed more cheaply than we imagine. Application of his methods indicates that large temple architecture at Copan was much less costly than expected, that labor demands on commoners were low, and that such demands by themselves probably had few if any deleterious effects on the polity (Webster and Kirker 1995).

Trigger (1990: 127) repeats V. Gordon Childe's earlier suggestion that (noncivic) monumental construction was most necessary as an expression of power early on in the careers of ancient states (see also Kolb 1994: 531). If this is true, what does it say about the Maya, who appear to have built on a large (or even increasing) scale throughout the Classic period? If diminution in building efforts in other civilizations is a measure of more stable institutions and political conditions, then does the Maya trajectory reflect increasingly unstable conditions? That many dynastic "collapses" of the eighth and early ninth centuries followed close upon large-scale construction episodes is consistent with this suggestion.

Place and Power: Some Comparisons

Classic Maya polities and their attendant kings and elites were strikingly tethered to places as fundamental foci of power. Old places such as Tikal were perennial centers of political gravity, and new dynasts founded shorter-lived centers of their own. Such a pattern is hardly unique. Comparisons with southeast Asian civilizations—particularly the Khmer of Cambodia—have long been fashionable among Mayanists because of their tropical forest settings and their expansive political systems focused on regal/ritual central places that appear not to have been fully urban in terms of population.

Higham (1989) summarizes essential aspects of Khmer centers. Divine overlords built them on a grand scale not only as royal residences but as centers for cults and rituals focused on the royal person, his ancestors, his lineage, and the extensive court gathered about him. Places such as Angkor were simulacra of

heaven, or “perfect” places, enlarged and improved by successive rulers. Built forms were heavily identified with important individuals, especially god-kings, some of whom styled themselves as apotheoses of the Buddha. Impressive buildings served as mausoleums for kings and their relatives. Stelae and other carvings celebrated individual kings, their accomplishments, and their families, and configurations of structures themselves were laden with symbolic significance.

Behind these façades of architectural power, however, lay comparatively weak political systems. Polities had centers, but boundaries were fluid and shifting according to the charisma and skill of individual rulers. Kings were essential to governance but by no means all-powerful in bureaucratic or coercive terms. Through royal rituals they mediated with heaven to ensure the well-being of their polities and metaphorically managed economic affairs. Force was less important than display, feasting, favors, and influence in attracting and maintaining the allegiance of retainers and other great families. Royal succession was always ambiguous, causing frequent internal power struggles. All of this should sound very familiar to Mayanists, for here again power and sanctity are tethered to monumental places.

But is this an invariable relationship in early complex societies? A little reflection suggests otherwise. A notable example to the contrary is provided by the native kingdoms of Hawai’i in the eighteenth and early nineteenth centuries (Earle 1978; Kirch 1990; Kolb 1994). Semidivine paramounts with genealogical rights to rule dominated political landscapes and populations as large as most Maya polities and surrounded themselves with retinues of lesser elites. Paramounts and associated elites were separated from commoners by a wide social gulf. They asserted the right to dispose of the products of commoners and their labor and used these for their own political purposes, which included frequent external war and internal status rivalry. Yet despite all this complexity, there was much less emphasis on durable monumental construction in Hawai’i than among the Maya or the Khmer. Appropriated labor was used to build intensive food-producing facilities and many large, scattered temples (*heiau*) that had varied functions. Some *heiau* combined ritual functions with those of elite residence, but permanent, central, royal precincts characterized by massive durable monumental architecture on the Maya or Khmer scale were not conspicuous features of the Hawaiian political landscape or ruling style. Preserved portions of the largest Hawaiian regal-ritual complex (Fig. 11), built over several centuries, have slightly more total mass than Temple I at Tikal (Kolb 1994: 524; Coe 1990, 2: 602).

Monumentality may thus convey power messages but mask internal organizational weakness and fragility. A more serious problem is that significant power

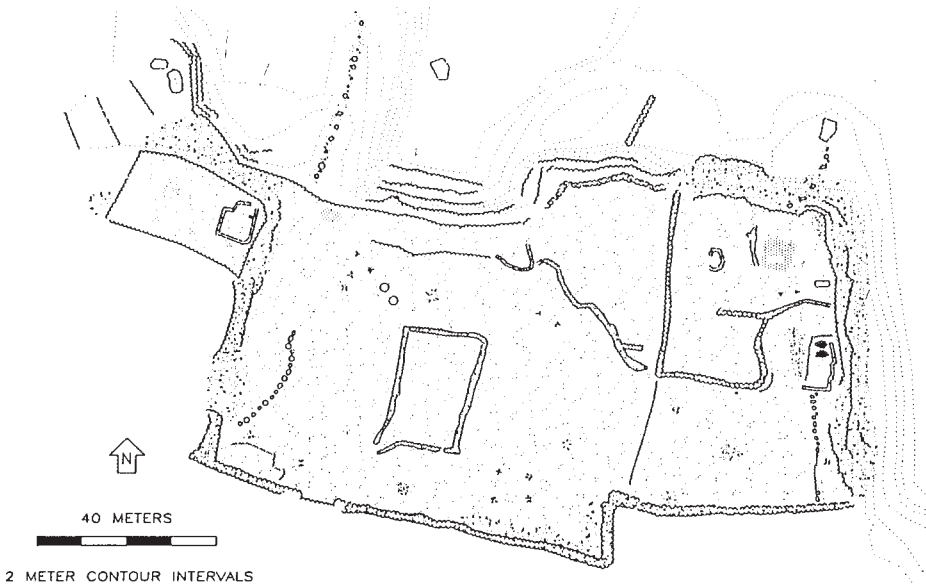


Fig. 11 Plan of the regal-ritual center of Pi'ilanihale, Maui, Hawai'i (after Kolb 1994: 525, fig. 2). This is the largest surviving Hawaiian monumental construction, built in stages over several centuries. Its mass, calculated at 21,938 m³, is slightly greater than that of Temple I at Tikal (18,260 m³).

and sociopolitical complexity may also be present in the absence of monumentality. If we knew about Hawaii only through its built forms, we would probably reconstruct it as much less complex than it was. Put another way, we are culturally predisposed to respond to power messages embodied in monumentality just as were the ancient Maya, but such messages may be otherwise conveyed. These comparisons serve to remind us that power, as with other aspects of sociopolitical organization, has only a loose fit with the monumental and symbolic aspects of the built environment, a set of relationships that we still do not fully understand.

SUMMARY

The enterprise of Maya archaeology, like ancient Maya elites themselves, remains strongly tethered to the built environment.

Because architecture is so abundant and well-preserved, it will continue to be a major source of information in its own right and a container for nonarchitectural data. Over the past century, we have gained considerable in-

sights into the functions and meanings of Classic Maya built forms, although often in rather unsystematic ways. The future should be much more productive for several reasons. First, the sheer mass of data at our disposal is much larger and richer. Second, we have made considerable gains in establishing contextualization, which in turn increasingly informs research design. Finally, we have unprecedented understanding of the symbolism embodied in Maya built environments.

The last reason reminds us that the study of the Maya built environment has been and remains very much a “top-down” effort, reflecting the traditional fascination with Maya elite culture. Black (n.d.) detects a recent shift of archaeological attention back to large centers, with their temples, palaces, monuments, and tombs, reversing the trend over the past 30 years that integrated small architecture into research programs. This shift is partly justifiable because of our much more sophisticated understanding of Maya art and writing, which after all are found almost exclusively at royal centers. There remain, however, many issues that can be addressed only through small-structure research, and hopefully this shift will not be too extreme.

The tension between excavation and restoration that manifested itself as early as the Carnegie Institution’s Chichen Itza project is much more pronounced today. The prohibitive cost of excavating large architecture can be justified only by the prospect of future tourist revenue, which in turn dictates restoration. Fortunately, tourists seem to have an insatiable appetite for things Maya, but inevitably archaeological research is compromised by overemphasis on restoration.

One adaptation to such restrictions is more intensive examination of small sites, where there is much less pressure for restoration. Another is to apply comparatively new methods of understanding spatial patterns to the existing universe of mapped and excavated built forms. For example, access analysis (Hillier and Hanson 1984) can be used to search for patterns within the same class of architecture, as Hopkins (1987) did for Teotihuacan apartment compounds. Although such analyses may not directly reveal function, they do point up previously unsuspected variability, some dimensions of which (e.g., greater restriction in access) may be generally correlated with increased social differentiation. So far there have been few applications of proxemics to the Maya built environment, a rather strange omission given the obvious intention of Maya builders to channel movement and create visual impressions of sanctity and power.

There is also much to be learned from traditional kinds of research that

emerged early but were not followed up. Energetic studies are a prime example, but the structural details of Maya built forms also bear close attention. They have much to tell us, including, perhaps, details of the organization of work parties. So too do other classes of artifacts intimately associated with architecture, such as caches (Chase and Chase, this volume).

Although this volume is mainly concerned with Classic architecture, one of the most exciting prospects is more longitudinal perspectives on major shifts in Maya architectural and symbolic programs. Particularly fascinating are the Pre-Classic–Classic (Hansen, this volume) and Early Classic–Late Classic transitions. New patterns associated with these shifts, such as the proliferation of palace scenes in the Late Classic, should reveal a great deal about the big transformations of Maya culture history.

One thing remains constant—our archaeological propensity to seek out patterns. Our ability to detect patterns in the built environment is greater than ever. Some of these patterns reflect Maya behaviors, intentions, and meanings. Some of them reflect our own wishful thinking. As always, the archaeological problem is to tell the difference between them and to test our interpretations through rich and varied lines of research.

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