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in Classic Maya Architecture*

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*What Do Houses Mean?
Approaches to the Analysis of Classic
Maya Commoner Residences*

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FOR THE PAST CENTURY, Mayanists have devoted much attention to monumental public buildings, many of which are elaborately decorated with sculpture and hieroglyphs. This fascination with elite-commissioned architecture is readily understood; after all, many such buildings are prominent, aesthetically dramatic, and well preserved. Imbued with meaning by their makers, monumental structures have been the object of intense study by specialists hoping to decode these meanings, which reflect past cultural perspectives. As this volume demonstrates, archaeologists and art historians continue to develop innovative and productive approaches to monumental buildings. But do the meanings conveyed in large buildings constitute all those that Mayanists can expect to recover from ancient buildings? What meanings, if any, are implied by modest, vernacular buildings, hundreds of thousands of which dot the lowland forest floor? What do these buildings tell us about ancient Maya culture and society? Although individual Late Classic commoner houses are quite modest, collectively they outnumber public buildings, and their total architectural mass may very well be greater than that of all monumental buildings combined. The building type most frequently constructed by the Maya, in other words, was the commoner house—small, predominantly rural, and largely perishable.

Mayanists reconstruct cultural meanings—ideologies, worldviews, ontologies—through the study of architecture and art. We must ask ourselves, Whose

meanings do such studies retrieve, and how representative are such meanings of Maya society as a whole? To what degree did commoners—the great, silent, and shadowy mass whose labors constituted the economic foundation of Maya society—share in the views conveyed in monumental constructions? To address such questions, archaeologists must examine the houses of the commoner Maya.

This chapter reviews the principal methodological and theoretical approaches that Mayanists can or have already taken to the recovery of meaning from Late Classic commoner houses. We discuss traditional and new approaches to architecture, examine what domestic architecture can and cannot tell us about ancient lifeways, emphasize the importance of nonstructural remains and ambient space, and review the implications of ethnoarchaeological studies of modern Maya residential patterns. We conclude that to understand the meaning of ancient houses archaeologists must, somewhat ironically, examine not just the house but the spaces and settings that surround it.

APPROACHES TO ARCHITECTURE

Typically, archaeologists adopt three principal approaches to houses and households. We describe these as a cultural approach, a social approach, and a functional approach. Not all aspects of these approaches are mutually exclusive. Indeed, there is some overlap between approaches because of intellectual cross-fertilization and because the development of some approaches is historically interrelated (e.g., the social perspective is an outgrowth of the functional one). We define these three approaches as follows.

The cultural approach focuses on the *house* to reveal culture. Rarely employed in the Maya lowlands, this approach is part of a larger theoretical paradigm that many anthropologists and archaeologists characterize as structuralist. Proponents of this approach identify houses as expressive media that communicate messages about power, gender relations, status, and humankind's relationship to the cosmos. Houses are viewed as stages where culture is enacted and reproduced through daily human action. The principal objective of this structuralist approach is identification of cultural or ideational (as opposed to architectural) "structures," defined by Bourdieu (1985: 95) as acquired systems of generative schemes and dispositions objectively adjusted to particular sociohistorical conditions. Stated more simply, such structures are the mechanisms through whose collective or individual enactment culture is produced and maintained.

The social approach, in contrast, focuses not on culture but on society. Its proponents examine not the house and its ideational load but the *household*,

defined as a unit of socioeconomic organization. The social approach then has a socioeconomic emphasis that reflects explicitly materialist, rather than idealist, concerns. We describe this approach as “social,” because it is concerned with household organization and economic adaptation—distinctly social phenomena.

The cultural approach and the social approach correspond to two competing archaeological philosophies. As Saunders (1990: 182) observes, the former is a structuralist, initially European approach now embraced by postprocessualists on both sides of the Atlantic; the latter is a positivist approach that underlies contemporary North American processualism. Proponents of the first approach examine the symbolic content and culture-reproducing role of material culture. Proponents of the second approach analyze the spatial disposition and formal attributes of objects (including buildings) thought to have socioeconomic significance.

The third approach, functional explanation, is the chronological antecedent to the social approach, and it enjoyed its greatest prominence in Maya archaeology from the 1950s through the mid-1980s. Devised originally as an aid to cultural historical reconstruction and settlement pattern analysis, the functional approach examines the house as an artifact endowed predominantly with social organizational (i.e., kinship) meaning. Proponents of this approach are simultaneously concerned with building use, or “function” (i.e., who did what where), as are proponents of the social approach. But the latter, unlike the former, examine not the house but the socioeconomic (as opposed to the kinship) organization of its occupants. Note that the functional approach among Mayanists should be distinguished from the “functionalist” school of theory (Jarvis 1973) of largely British origin once widely embraced by social anthropologists and adopted with some modification by many New Archaeologists.

The three approaches may be briefly summarized as follows:

- (1) the cultural (or structuralist) approach focuses on the house as an artifact encoded with generative meaning;
- (2) the functional approach focuses on the house as an artifact endowed with social organizational meaning;
- (3) the social approach focuses on the house and its immediate surroundings to investigate the household (those who occupied the house), defined as a basic unit of socioeconomic adaptation.

As noted above, the partial overlap in attributes of these approaches can be understood in terms of their historical interrelations. The functional approach, deeply embedded in traditional Maya household archaeology, has been practiced predominantly by Mayanists trained before and during the era of New

Archaeology. The social approach, a new and emerging trend in Mesoamerican studies, is an outgrowth of what Schiffer (1988) terms “reconstruction theory,” a modification of or reaction to New Archaeology that has gained considerable prominence among Americanists during the past ten years. Recently, Mayanists have begun to carry out projects with objectives that embrace or are consistent with the theoretical and methodological perspective of the social approach. Unlike the other two, the cultural approach is derived primarily from a European structuralist position. Widely embraced by British archaeologists, the approach has been largely ignored by Mesoamericanists, most of whom prefer a more materialist theoretical stance.

The potential of the structuralist approach for Maya architectural research remains virtually unexplored. Although widely embraced by Europeans and many North Americanists, the approach has yet to be received with enthusiasm in Mesoamerica. The reluctance of Mayanists to employ the structuralist method can be attributed to two factors: (1) the method’s avowedly antimaterialist theoretical underpinning; and (2) the incompatibility of notions of culture employed by Mayanists and proponents of the structuralist approach. Although structuralist analysis promises to be highly productive when applied to well-preserved, high-status residential architecture, its usefulness for analyzing poorly preserved houses of commoners has yet to be demonstrated.

A fourth, potentially productive, approach to the problem of domestic architectural meaning is direct historical analogy. Proponents of this approach would explain archaeological patterns in ancient residences through reference to ostensibly analogous cultural patterns in modern and ethnohistoric Maya houses. There is sharp disagreement among archaeologists about the merits of this approach—cf. Gould and Watson (1982), Wylie (1985), and Stahl (1993). We do not further consider this subject here because it is highly complex and deserving of a separate, lengthy discussion.

Detailed discussions of the cultural, functional, and social approaches follow below. We begin with a review of the theoretical underpinnings of the cultural perspective and its potential contribution to the analysis of residential architecture of Maya commoners. Next we examine the accomplishments of the functional approach. We conclude by advocating an explicitly social alternative.

THE CULTURAL OR STRUCTURALIST APPROACH TO ARCHITECTURE

What we define as the cultural approach to houses derives from a structuralist paradigm (Sahlins 1976: 32) in which culture is defined as a complex system of descriptive, interpretive, and generative signs that inform behavior by being enacted. The principal proponents of this approach, Bourdieu (1985) and

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Giddens (1979, 1982), view culture as an ideational screen or meaning system through which individuals conceptualize themselves, others, and the world around them. Central to this perspective is the assumption that individuals reproduce and express cultural structures by enacting them in daily practice (Hodder 1989a). Because practice transpires within the context of culturally ordered space (either the built environment or the marked or interpreted landscape), it is constrained and informed by the meanings that the space encodes.

Houses are a case in point. To the degree that they encode cultural meanings, houses become both vehicles for communication of meanings and stages for reproduction of those meanings in the context of daily household practice. In nonliterate cultures, Bourdieu (1977: 89) proposes, houses are “the principal locus for the objectification of the generative schemes” that are culture; “through the intermediary of the divisions and hierarchies [that the house] sets up between things, persons, and practices, this tangible classifying system continuously inculcates and reinforces the taxonomic principles underlying all the arbitrary provisions of this culture.” Houses, in other words, are “structuring structures”—culturally loaded spaces that socialize by encouraging practices consistent with the meanings that they encode. The spatial divisions of the Saami residence, for example, reflect a specific system of values and gender relations upon which Saami society is based (Yates 1989). Saami regard these architectural divisions as transformations of ritual divisions of the universe. Such houses map in miniature a cosmos structured by specific kinds of relations (see Blier 1987). Through their objectification in architecture and reproduction in practice, these relations become naturalized. Thus, the relationship between social and spatial interactions is reflexive because production of space is linked to reproduction of social relations (Saunders 1990). Sahlins (1976: 37) describes the relationship as follows: “A ‘model of’ and a ‘model for’—to adopt Geertz’s terms—the house functions as the medium by which a system of culture is realized as an order of action.”

Encoded in houses are systems of meanings that function as a kind of language or text (Hodder 1989a). These systems of meanings are generative—that is, through their enactment they re-create structure. Architecture, like all material culture, communicates as a language composed of a descriptive syntax and a generative grammar (Hanson and Hillier 1982; Hillier and Hanson 1984; Patrick 1985). The organizing principles of that language can be described schematically (Hillier and Hanson 1984) and, in some cases of prehistoric architecture, they can be reconstructed archaeologically (Sutro and Downing 1988; Sanders 1990; Blanton 1989). Hillier and Hanson (1984) offer a descriptive syntax for analyzing the relationship between built spatial organization and

social organization. In all societies, they claim, principles of spatial organization are the organizing principles of social reproduction. Invoking a structuralist terminology, they propose that these principles encode the “deep structures” of culture. Analysts are encouraged to examine architecture in terms of universal principles such as “permeability” or access, the organization of which is thought to be homologous with social organization—cf. Small (1987) and Foster (1989). Intellectual antecedents are found in Hall’s (1966) theory of proxemics—how a people’s use of space is an aspect of culture. Proxemic codes, like the abstract codes of language, inform us about the way people think about their spatial world (Hodder 1989b: 72).

The meaning systems encoded in architecture have two aspects. First, the code of meanings can be highly abstract, preconscious, and agentless, as in pansocietal house forms that reproduce a generally accepted model of cosmological order. Blanton (1994) refers to these meanings as “canonical” messages. Yet culture is not reproduced purely through the enactment of unconscious, abstract structures that precede thought and action (Hodder 1989a, 1989b). Rather, human agency is involved in the generation of certain meanings, especially those meanings through which power is negotiated and established. This leads to the second aspect of meaning systems: some are “created and recreated in the context of specific power relations through the strategies of agents” (Hodder 1989b: 74). Indeed, dominant groups and individuals manipulate aspects of meaning systems for their own benefit. At issue is the difference between the ideational, defined as the abstract, pansocietal phenomenon of “culture,” as defined above, and ideology, which might be described as the culture of power.

Social control as a mechanism of power is encoded in architecture, particularly public architecture, which serves as a stage where structures of power, privilege, and inequality are created, enacted, and re-created. The language-based system of analysis devised by Hillier and Hanson (1984) and others can be used to decipher the deliberate manipulation of meaning that architecture encodes. Access analysis, for instance, reveals strategies for social control accomplished through control of space (Moore 1992; Isbell, Brewster-Wray, and Spickard 1991). Given that hierarchy is founded on differential access to desired resources, on the stage of public architecture hierarchy may be enforced and displayed by limiting access to prestige-endowing space. In the home, the principal negotiations for power are those involving relations of gender, age, and status (Tringham 1991). Hypothetically, the symbols of negotiation or, in some cases, the structures of domination should be encoded in, and thus be recoverable from, the remnants of the house and its contents.

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This synthetic aspect of the structuralist approach is attractive because it unites the idealist's concern with abstract structures and the materialist's concern with the structure of power. Unlike most materialist analyses, however, the structuralist approach focuses not on the socioeconomic or social substrata of hierarchy but on its symbolic expression in architecture. In the case of houses, the focus is not on the household that occupied the house but on the building itself in its symbolic-communicative role. What the household does—how it is constituted in terms of social organization and economy—is less important than how the household thinks about and thus creates aspects of itself through the vehicle of generative symbols. According to many proponents of structuralism, this “thinking about” activity generates behaviors and social relations that lie at the heart of domesticity. Of course, how well in ancient societies the ideal (the symbolic) actually corresponded to the real (past behavior and organization) is very difficult to determine archaeologically. Indeed, use of the approach requires an epistemological leap of faith that not all anthropologists are willing to take (Leach 1978).

The structuralist (anthropological), or postprocessualist (archaeological), approach to houses is most popular among archaeologists working in Europe and other parts of the Old World—e.g., Hodder (1990), Samson (1990), and Yates (1989). When considering the generative aspect of structure and symbol, some proponents of structuralism go so far as to suggest that the cultural meaning systems encoded in symbols determine the architectural form of the occupied house (Donley-Reid 1990). Given the materialist bias of many North American-trained archaeologists, it is perhaps not surprising that many of those working in the Maya lowlands are hesitant to endorse a perspective widely perceived to be fundamentally and avowedly antimaterialist. Although this perception oversimplifies the structuralist perspective (Hodder 1989b), some prominent structuralists, including Hodder (1989a, 1990), assert that in instances of social change the symbolic is causally antecedent to the economic—a position wholly inconsistent with materialist expectations about cultural causality—e.g., Steward (1955), Binford (1962), Sanders and Price (1968), and Sanders, Parsons, and Santley (1979).

The structuralist approach promises to reveal both culture and ideology (defined in the materialist sense as ideational structures that contribute to politicoeconomic domination and control), yet it has been little used in Latin American archaeology, including the Maya lowlands. The few attempted applications of the method have been speculative, exploratory, and highly experimental. Hammond (1975: 78–83) used the technique of access analysis to examine communication within the Lubaantun site core, but his objectives and

theoretical framework were not those of structuralist archaeology. Ashmore (1989, 1991, 1992) employs a structuralist idiom in her examinations of Maya monumental architecture and ideology,¹ but her methodology and general theoretical perspective are predominantly processualist. Like Blanton (1989) and perhaps Moore (1992), Ashmore develops a position that falls midway between traditional processualism and recent structuralist theory. That is, she describes power not as a state that, because it is constituted and negotiated through practice, constantly is “coming into being” (Hodder 1989b). Rather, power in her more materialist view is a manipulated (rather than generated), preexisting entity founded in political and socioeconomic relationships, the true nature of which is disguised by religious precepts that refer to cosmological rather than mere human imperatives.

Like many anthropologists, Mayanists tend to define culture as a system of meanings embodied in symbols. These meanings describe a perceived world and the place of human beings in it. Cultural conceptions about nature and society are objectified in symbols, which can take material form in durable, publicly displayed objects. In the Maya archaeological record, symbols endure as art and iconography, which specialists analyze to reveal aspects of the imagined or conceptual universe—ancient culture—that these encode. Described as “ancient idea systems” (Ashmore 1991: 218) and “the conceptual systems of ancient civilizations” (Tate 1992: xi), culture in this highly symbolic view closely resembles Geertz’s notion of worldview: a people’s “picture of the way things in sheer actuality are, their concepts of nature, of self, of society . . . their most comprehensive ideas of order” (Geertz 1973: 127). Models of Maya culture developed from symbolic data emphasize the role of rules, patterns, and conceptual regularities in the elaboration of social life. Culture then is normative, inclusive, and broadly defined as how the Maya perceived their world.

Given that their conceptualization of culture differs so fundamentally from that embraced by postprocessualists, Mayanists not surprisingly resist the structuralist approach to architectural analysis. Whereas the postprocessualist perspective on culture revolves around notions of structure and is anchored in concepts like “habitus” (Bourdieu 1985) and “domus” (Hodder 1990), Mayanists and Mesoamericanists generally regard culture as equivalent to religion, cosmology, worldview, and the political ideology of a ruling elite (Willey 1973, 1976; Coe 1981; Sharer and Ashmore 1979; Demarest 1992). As far as many Mayanists are concerned, the organizing principles of culture are expressed

¹ “By Classic times, Maya builders were drawing from a standard grammar but flexible vocabulary of spatial expression” (Ashmore 1992: 173).

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graphically, formally, and unambiguously in royal art, architecture, and inscriptions. Thus, Mayanists hoping to reconstruct culture tend to focus their attentions exclusively on that evocative body of data—e.g., Freidel, Schele, and Parker (1993). Why bother with houses, many would argue, when what matters most ideationally is spelled out clearly in durable graphic media? Of course, by equating the ideational aspect of culture with ideology (in the materialist sense), many Mayanists dismiss as elite-generated epiphenomena precisely those aspects of culture that are the central focus of structuralist analysis—cf. Demarest (1989).

There are also practical impediments to the application of structuralist methods of analysis to certain kinds of Maya architecture. Whereas large Maya residential structures, such as Copan Type III and IV residences or their equivalent at other sites—cf. Webster (1989)—might profitably be examined from a structuralist perspective, small, poorly preserved commoner residences probably cannot. Symbolic meanings are encoded in all houses, yet the degree to which meanings are recoverable archaeologically varies because of considerable interhousehold variation in socioeconomic factors. As McGuire and Schiffer (1983: 286) observe, residentially mobile households minimize the investment of meaning in durable architectural features as a means of minimizing the costs of new house construction that households absorb periodically. To this end, houses of the residentially mobile generally are built of wood, cane, thatch, and other inexpensive, perishable materials that do not preserve in the archaeological record. Wealthy, residentially stable households, on the other hand, are built with “expensive,” highly durable materials like cut stone blocks, which, because they are imperishable, preserve the meanings they encode. Thus, preservation, itself partly governed by socioeconomic variables, determines the degree to which meaning can be recovered from ancient domestic architecture.

Aspects of culture that have not yet been explored by Mayanists include privacy and boundary construction and maintenance. Various defined as “control of unwanted social interaction” (McGuire and Schiffer 1983: 285) and “the claim of individuals, groups, or institutions to determine . . . when, how, and to what extent information about them is to be communicated to others” (Roberts and Gregor 1971: 199), privacy is a culturally variable but presumably universal phenomenon. At Joya de Ceren (Sheets 1992, 1994), which some have argued is a Maya site (Webster, Gonlin, and Sheets 1997), benches for sleeping and sitting were placed in the innermost rooms of dwellings and in the outer rooms of communal or civic structures (Kievit 1994: 203–204). The differential placement of benches suggests that social access and information transmission varied according to social context. At many lowland Maya sites, benches were similarly placed against back or side walls, locations that provided privacy

because they were least visible from the courtyards they faced. The stone walls that compartmentalized the interior spaces of wealthy houses also presumably contributed to the maintenance of privacy. Although the concept helps us to identify the existence of certain patterns of ancient behavior, it does not tell us for whom or under what conditions privacy was maintained. Privacy, in fact, is a poorly defined, highly elusive concept. As Hall (1966) and Roberts and Gregor (1971) note, even within individual societies considerable variation exists in how concepts of privacy are articulated architecturally. Moreover, privacy can be achieved in architectural settings by means (such as curtains or screens) that leave no permanent marks on architecture (Roberts and Gregor 1971: 218). Information provided by Sharer (1994: 467) reminds us that analysts must use caution when employing concepts like privacy. Describing houses along the Río Usumacinta, a seventeenth-century writer mentions the presence of crude wooden beds built to accommodate up to four people. When discussing privacy under conditions such as these we must ask ourselves, For whom did architecture establish privacy? Until archaeologists firmly establish the linkage between architectural spaces and social groupings, fundamental questions such as this cannot adequately be answered.

THE FUNCTIONAL APPROACH TO HOUSES

In contrast to the structuralists, who adopt an idealist perspective to reveal culture (i.e., houses viewed as generative structures that encode key cultural meanings), proponents of the functional approach embrace a materialist concern with socioeconomic phenomena. Underlying this theoretical contrast is an historical one: developed during the 1950s and 1960s, the functional approach incorporates tenets of American processual archaeology that the structural approach, developed more recently and principally by Europeans, rejects. Consistent with processualism (Binford 1981: 198; Hodder 1989a: 253), the functional approach asserts that the meaning of objects (including buildings) lies in their purpose or use. Function is defined in economic and social organizational terms—what a building or room is used for. For example, a small patio group is said to “house” a nuclear family. Within patio groups, some structures function as dormitories, and others function as facilities where tools and dried foods are stored. Archaeologists establish these functions by investigating the formal properties of architecture (size, form, construction materials), the presence or absence of features (hearths, caches, burials), and the composition of artifact assemblages found within houses. Based on the premise that certain features and artifact assemblages are archetypically domestic, archaeologists iden-

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tify all architectural remains associated with these materials as “houses.”² Meaning is direct and unambiguous: the presence of artifacts and features indicates function. Proponents of the functional approach typically ask, Is this structure a house, and if so what part of the house is it: dormitory, kitchen, shrine, storage chamber, or other ancillary? Among some proponents, direct historical analogy is a central component of this approach.

The popularity of the functional approach (which has dominated Maya house studies for the past four decades) can be understood in terms of the history of its development. Stung by the criticisms of Kluckhohn (1940), Taylor (1948), and others (Steward and Setzler 1938), who characterized American archaeology as nonanthropological and unscientific, Mayanists in the 1950s adopted several new and promising research methodologies, the most important of which was settlement pattern analysis (Willey et al. 1965; Bullard 1960). Settlement analysis enabled archaeologists, ecologists, and agronomists to attack with renewed vigor and creativity an outstanding problem in Maya studies: the size of the ancient population, its growth rate, and the agricultural means by which it supported itself (Culbert and Rice 1990). Mayanists had long realized that to develop scientifically sound, chronologically accurate models of population growth and size three questions had to be answered. First, which of the many mounds visible on the forest floor were houses? Second, what percentage of houses were occupied during different time periods? Third, within residential patio groups which buildings functioned as “dwellings” or sleeping structures, one of which should be associated with every family or household? Nondwelling building types might include kitchens, shrines, storage huts, and other ancillary structures.

Proponents of the functional approach generally follow a four-step procedure. After establishing a typology of building types (step 1), archaeologists excavate a sample of each building type (step 2) and determine the function of types (step 3) by studying architectural morphology (formal similarity to modern and historic houses) and associated features and artifacts. Structure types associated with “domestic” materials are identified as houses (step 4). With the architectural correlates of domesticity thus documented, archaeologists can thereafter identify houses on the basis of architectural criteria alone, usually through surface survey.

The approach appealed to Mayanists for two reasons. First and foremost, it was methodologically efficient and reasonable. Investigations focused almost

² See Johnston n.d. for a critical analysis of this approach.

exclusively on architecture. Buildings were exposed partially or in their entirety to determine chronology, layout, and the sequence of architectural modifications. Archaeologists frequently limited their excavations to a stratigraphic test pit or two through architecture for chronological purposes. Except for chronological probing of stratified middens, extramural space was largely ignored. Second, the approach seemingly confirmed what most archaeologists already assumed to be the case: that architectural form reflects building function (Rapoport 1990: 11), including social function.

Contributing to development of the procedure was the work of several North American archaeologists, who concluded from the publications of social anthropologists (Allen and Richardson 1971) that settlement (Steward 1937; Martin and Rinaldo 1950; Chang 1958; Turner and Lofgren 1966) and artifactual (Deetz 1968; Hill 1966; Longacre 1970) data reveal ancient patterns of family and community kinship, residence, and descent. Perhaps because its outcome was ostensibly anthropological, Mesoamericanists, e.g., Flannery and Coe (1968)—among them many Mayanists, e.g., Haviland (1968) and Fash (1983)—embraced this methodological advance enthusiastically. The function of a house, Mayanists concluded, is to accommodate a family of a particular configuration. Because the social configuration of the house changes during its “developmental cycle”—a social organizational phenomenon identified by social anthropologists during the 1950s (Fortes 1958)—so does the physical configuration of the house change. Changes in house form thus reveal the changing configurations of Maya families (Tourtellot 1988a; Haviland 1988). Studying architectural form and chronology, Mayanists drew inferences about family type and developmental cycle history.

Many Mayanists continue to embrace today, although in somewhat modified form, a functional approach to houses—e.g., Sheehy (1991), Hendon (1991, n.d.), Pyburn (1989), and Gonlin (n.d.). Like the cultural-historical approach to settlement from which it proceeds, the functional approach to houses is largely classificatory and descriptive. Buildings are categorized by “type” according to assumed functions (e.g., house, palace, temple) and details of construction are recounted chronologically. Although, as Webster (this volume) notes, some social organizational inferences can be drawn from residence construction histories, in the case of Maya commoner houses this usually entails correlating certain architectural growth patterns with specific family types. Haviland (1970, 1981, 1988), Tourtellot (1983, 1988a), and others (Fash 1983; Kintz 1983, n.d.), for instance, argue that the houses of extended families undergo diagnostic accretionary growth patterns. Idiosyncratic architectural growth patterns, on the other hand, are attributed to the vicissitudes of the family

development cycle (Tourtellot 1988a; Haviland 1988). Employing the functional approach, archaeologists attribute architectural variation to one of two factors: (1) pansocietal social formations (family type) or (2) a universal social developmental cycle. What the approach cannot explain is why some Maya families were extended and others were nuclear, nor can it account for variation in family developmental cycles as evidenced by the idiosyncratic architectural histories of individual residences.

We emphasize that proponents of the functional approach have made many significant contributions to Maya archaeology—see Sharer (1993) for a review. Yet the approach is inherently problematic. Underlying the approach are a series of implicit assumptions, some of which are questionable whereas others are clearly inaccurate. These assumptions can be described as follows:

- (1) Families occupy houses.
- (2) House form reflects family form.
- (3) Most artifacts found on house floors remain in their systemic context.

The problematic nature of the first assumption has been widely discussed by anthropologists, sociologists, and social historians (Hammel and Laslett 1974; Brown 1977; Netting, Wilk, and Arnould 1984; Ashmore and Wilk 1988; Wilk 1984, 1990; Alderson and Sanderson 1991), the majority of whom conclude that it is more accurate to say that houses are occupied by households, a unit of socioeconomic organization, rather than families, a social unit characterized by specific kinship relations. The second assumption is called into question by ethnographic and ethnoarchaeological studies (Wilk 1983; Kamp 1987) indicating that specific house forms correspond to specific family types in some but not all societies. Because this relationship is subject to considerable cross-society variation, it must be critically examined and demonstrated in each case (David 1971). Additionally, the relationship between built form and socioeconomic function is inherently unstable and ambiguous. For instance, building function can change over time (David 1971; Widmer and Sheehy n.d.) with no corresponding change in architectural form. Building functions may be heterogeneous and polyvalent (see Houston, this volume), consisting not of single activities but of multiple activity sets that shift or recombine in complex patterns over time. The simplified conceptualization of the form–function relationship offered by the functional approach potentially can mislead us. Also complicating attributions of function are socioeconomic variables. In poor households, for instance, single structures may accommodate multiple, functionally differentiated activities (sleeping, food preparation, tool manufacture, ritual) that in wealthy households transpire in two or more architecturally differentiated spaces. In cases such as this, artifact assemblages may resemble one

another compositionally although individual structure functions differ (Gonlin n.d.). The relationship between built form and socioeconomic function can be more complex than the functional approach allows.

We discuss in further detail below the third assumption—that artifacts found on house floors remain in their systemic context. This assumption is characteristic of functional studies of Maya houses published before the mid-1980s, wherein residential function was determined largely on the basis of artifactual “domestic criteria”: the presence of cooking pottery, grinding implements, figurines, or stone tools. Most contemporary Mayanists disavow the assumption, yet it remains implicit in much research: in the case of commoner houses constructed of perishable materials, how else can residential function be established when archaeologists excavate only the house, the architectural remains of which are typically poorly preserved, incomplete, or artifact-free? Additionally, this assumption is implied by the excavation of test pits through architecture to determine residential function. Artifacts exposed on living surfaces in test pits can be used to identify structure function only if it can be demonstrated that those artifacts remain in or near their original use location. If, on the other hand, abandonment or postabandonment processes are responsible for the distribution of living floor assemblages, they should not be used to reconstruct original room function (Schiffer 1985; Rothschild et al. 1993).

Underlying all these assumptions is a fourth that is both the most important and the most problematic: that houses reliably “signify” households. Composing this assumption are two preconceptions. First, as Smith (1993: 13) has observed, Mayanists often claim to excavate “households” when in fact they investigate houses (artifacts) to infer households (behavior and organization). This terminological imprecision betrays a flawed conceptualization. Contrary to what some Mayanists believe, houses are not equivalent to households. Closely related is the second preconception: how Mayanists of the cultural historical school perceived the notion of “function” acquired from processualism. Within the materialist formulation proposed by Binford (1962, 1981) and other processualists, function is first and foremost technological, economic, and adaptive. Function is how an artifact (whether tool or architecture) is designed to cope directly with the physical environment. Binford, for example, examines artifact function to determine what major (economic) tasks were performed at particular locations. When Mayanists embraced processualism, they adopted a concern with function, but proponents of the functional approach investigated not economic function but the functional relationship between cultural traits and social systems (Trigger 1989: 298). Thus, in the case of architectural analysis, buildings are classified according to function (house, palace, temple, etc.),

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but function is defined in predominantly social rather than economic terms. Houses, for example, are said to function as the dwellings of commoner families, and palaces function as the dwellings of elite families. Bypassed are questions of socioeconomic function: what economic tasks were performed at this location, and how were households constituted socioeconomically? This concern with social function, or how inferences about social organization could be drawn from the remains of dwellings, pervaded American archaeology through the early 1980s (cf. Lowell 1991: 3–6). Lawrence and Low, for example, observe that

Archaeologists focus largely on the accuracy with which inferences about social organization can be made from the remains of dwellings. . . . In particular they ask how specific attributes of dwellings (size, number, and function of rooms, for example) correspond to features of social organization (size and composition of the domestic group). (Lawrence and Low 1990: 462)

This objective remains an important concern of Maya functional studies today.

THE SOCIAL APPROACH TO HOUSES

To more profitably evaluate the assumption that “houses reliably signify households,” it is useful to restate it as a question phrased in the terms posed by this volume: “What do houses mean?” Archaeologists attribute meaning to the archaeological record on the basis of specific methodological and theoretical criteria (Patrick 1985; Sabloff, Binford, and McAnany 1987; Hodder 1989a). Meaning is not inherent in the record, nor do archaeologists simply uncover “facts” waiting to be discovered. Because attributions of meaning are only as reliable as the criteria that underlie them, it is critical that the analyst employ criteria appropriate for the problem under investigation. To investigate the household (defined socioeconomically), the analyst must shift the focus of inquiry from (1) the house to (2) the house and its surroundings as situated within the archaeological record. Rejected is the functional notion that the material condition and spatial organization of the archaeological record directly or unambiguously reflect patterns of past economic behavior and social organization. Embraced is the position advanced by Schiffer (1987, 1988) that to understand the meaning of the archaeological record we must first understand how that record was formed. Proponents of the household approach bypass the problem of building use and social function. Instead they ask, To what categories of ancient behavior do houses and their surroundings as represented in the ar-

chaeological record correspond? Theory linking the static material record to dynamic past behavior is drawn from ethnoarchaeological data. In the case of Maya house investigations, that theory examines formation processes—both cultural and environmental—that structure household sites and their artifactual contents.

Household formation processes transform a systemic record into an archaeological one, thereby interposing a filter between archaeologists and the ancient behavior that they wish to understand (Schiffer 1985, 1987, 1988). If it is true that the artifactual contents of houses are not preserved fossil-like in their systemic context, and if, as in the case of Maya commoner houses, the architectural record is both sparse and poorly preserved, then what do we establish by excavating a house beyond a crude functional classification of its architecture, a mere description of its construction history, and a foundation from which to infer commoner population size? And where in the first two of these endeavors is the anthropology?

The social approach is both an outgrowth of the functional approach and its chronological successor. Whereas the functional approach dominated Maya household archaeology through the mid-1980s and remains an important tool in certain types of settlement pattern analysis, the social trend, like the structuralist one, is new and emerging. In contrast to the functional approach, which focuses on the house and its use, the social approach examines the household, defined as the unit of socioeconomic organization that occupied the house. When applied to certain research topics the functional approach has considerable merits, but in the case of Maya commoner household investigation those merits are decidedly limited. To advance our understanding of Maya commoner households, another approach must be taken. Particularly constructive is the social approach.

The social approach examines not families but households. The distinction between these two social entities is important and fundamental (Bender 1967; Carter 1984). A family is a kinship group whose members are linked by culturally defined relations of birth, adoption, and marriage regardless of whether or not they live together or engage in any shared economic tasks. The household, in contrast, is a residence group wherein membership is defined by shared tasks of production and consumption regardless of whether its members are linked by kinship or marriage or are coresident. In many societies, households and families do not overlap: families do not always form households (Kramer 1982) and many households are not composed of families (Horne 1982; Wilk 1984; Oswald 1987). Although houses usually indicate the presence of households, the linkage between houses and families is considerably less clear. Proponents

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of the functional approach (Haviland 1981, 1988; Tourtellot 1983, 1988a, 1988b, 1993; Kintz 1983) embrace the thesis of Fortes (1958) and Goody (1962, 1972, 1976) that there is a close fit between dwelling form and social organizational form, but this assumption is not universally supported by comparative anthropological data (Netting, Wilk, and Arnould 1984).

The social approach then is concerned not with kinship relations but with the socioeconomic substrata that underlie those relations. Social historical research indicates that household form is largely a function of economic factors. To understand the composition of a household, one must examine the economic and ecological variables to which that composition is an attempted adaptation. The approach does not reduce archaeological inquiry to a crude base-superstructure calculation, nor does it promote a resuscitated or clandestine environmental or geographical determinism. Although recognizing the significance of cultural and social variables, the social approach asserts that these variables frequently are framed, delimited, and directed by economic necessities (Arcury 1990; Rudolph 1992).

Described by historians and sociologists as the “new household economics” (Lehning 1992: 162), the approach looks at households not just as sets of genealogically or affinally related individuals but as work groups (Laslett 1983; Viazzo 1989; Alderson and Sanderson 1991; Lehning 1992). Proponents posit that for a household to accomplish its goals, a labor force is needed whose size, composition, and organization falls within parameters consonant with and adjusted to key ecological and economic variables. As these parameters change over time, households also change. Indeed, households are dynamic, inherently flexible entities capable of adjusting to new economic opportunities and environmental circumstances (Brown 1977; Netting 1979; Hammel 1980). Ecologically adjusted labor requirements favor certain types of household form over others. In agricultural societies, there is a strong relationship between household form, labor needs (the social organization of production), land use (the mode of production), and land tenure and inheritance schemes (social conditions limiting access to land) (Netting 1965, 1993; Brown 1977; Wilk and Netting 1984; Rudolph 1992). This relationship is itself constrained by environmental variables that determine the productivity of land under given levels of agricultural technology (Mitterauer 1992). For instance, several anthropologists note that landless families frequently have simple, nuclear structures, whereas landed families (particularly those with impartible land-inheritance schemes) tend to have more complex, extended structures (Pasternak, Ember, and Ember 1976; Wilk 1983; Alderson and Sanderson 1991; Lehning 1992). The critical factors are labor availability, resource availability, and the complexity of economic tasks:

where labor requirements are incompatible with simple nuclear families, extended family households emerge (Netting 1965; Wilk and Rathje 1982). The primary determinant of household structure in these societies is a principle not of kinship but of economics.

Citing extensive comparative data, several social historians have argued that labor requirements are a powerful determinant of household form (Viazzo 1989; Mitterauer 1992; Lehning 1992; Rudolph 1992). The argument is simple, logical, and empirically verifiable: farmers occupying a specific environmental setting and having at their disposal a given agricultural technology know that some types of labor arrangements are a great deal more productive than others. How labor is organized depends on the quality and character of land holdings, their spatial distribution, and the manner in which access to land is governed by tenure and inheritance schemes. Because inheritance and tenure do not affect all individuals uniformly within a society, different household types (e.g., extended versus nuclear) often coexist. The structure of the household reflects the attempts of individuals to strike a balance between the realities of resource composition and availability (which in part is socially determined), their desire to reproduce socially, and their need to adapt economically. Yet, as noted above, economic adaptation must in an organizational sense be socially compatible with resource availability. Like land tenure organization (Adams 1981: 20), household form both reflects and is structurally consistent with the social organization of production.

By drawing from the social historical literature, two principal criticisms can be leveled against the functional approach. Paraphrasing Wilk and Netting (1984: 3), we may say, first, that what households do (economic organization) is logically prior to what they look like (kinship organization). All other things being equal, then, economic organization is more likely to structure kinship relations than vice versa. The principle at issue is self-evident: economically nonadaptive kinship relations cannot, in the long term, survive. This leads to the second criticism of the functional approach: "its tendency to treat family structure as self-levitating, thus ignoring the larger social context in which families and households exist" (Alderson and Sanderson 1991: 420). Socioeconomic context constrains household behavior, thereby limiting form. If we are to determine what causal variables (if any) determined Maya household form, we must shift our focus from the house as a spatially confined architectural entity to the larger terrain wherein socioeconomic behavior transpired and within which certain durable material residues of that behavior are likely to remain. That larger terrain is the "houselot" (Killion 1990, 1992b; Santley and Hirth 1993).

Refuse Management, Formation Processes, and the Maya Houselot

In the humid tropics, many of the productive activities that differentiate households socioeconomically from one another transpire out-of-doors. In contemporary Mesoamerican communities, courtyards and adjacent areas remain the sites of important economic, social, and ceremonial activities (Wisdom 1940; Killion 1992a; Arnold 1990). That courtyards and other extramural areas were similarly used in antiquity is evidenced by artifactual data from the sites of Copan (Gonlin n.d.; Hendon n.d.) and Ceren (Sheets 1992), and soil chemical data from Coba (Manzanilla and Barba 1990). At Ceren, where residential compounds are unusually well preserved, archaeologists have established that much of the total roofed area was devoted to *ramadas*, which shaded extramural work space (Sheets 1992). Lowland Maya architectural evidence of *ramadas*—exterior lines of posthole that parallel the front walls of houses—has been found at Itzan (Johnston n.d.). At Copan, hearths in commoner residential complexes often were placed in open courtyard space (Gonlin n.d.). Yet these areas otherwise are largely devoid of artifacts or, as we argue below, yield material scatters whose depositional context is highly problematic.

For the archaeologist, extramural productive activities are evidenced by whatever hard artifactual residues of them survive in the material record. In the case of ancient agricultural communities, these residues are likely to include the durable by-products of crop production (e.g., flakes from stone hoe manufacture) and food processing and consumption (e.g., broken pots, ash, burned bone, grinding stone fragments). According to the functional perspective, the spatial distribution of these artifactual materials directly reflects the original spatial organization of ancient productive activities; the artifacts, in other words, were dropped at their original use location and remained there until discovered by the archaeologist. Proponents of the social approach strongly disagree, arguing on the basis of extensive ethnographic and ethnoarchaeological data that residential site structure—the spatial organization of architecture and artifacts—is the outcome of three principal factors: (1) the use of space by household members, particularly their management of refuse materials; (2) household behavior at the time of abandonment; and (3) postabandonment scavenging behavior and noncultural environmental processes.

As Schiffer (1985) observes, the first of the three factors is inconsistent with a “Pompeii premise” that underlies much New Archaeology, including the functional approach to Maya houses. According to that premise, the items found in and around houses “were laid down at room abandonment as assemblages that represent, in Pompeii fashion, a systemic inventory of household artifacts, thus

faithfully mirroring the activities that took place in those architectural spaces” (Schiffer 1985: 18–19). That the Pompeii premise is wrong in all but a few cases has been indicated by studies too numerous to list here.³ Hayden and Cannon (1983) and Deal (1985) remark that in contemporary highland Maya agricultural households, the primary determinant of artifact spatial patterning is garbage disposal behavior. This observation pertains equally well to Pre-Columbian archaeological sites, including those of the Maya. The second of the three factors—abandonment behavior—complicates site interpretation further because it reorganizes the spatial distribution of artifacts in a manner that reflects not socioeconomic activity during residential occupation but storage and scavenging behavior at the time of abandonment (Cameron 1991; Cameron and Tomka 1993). Many postabandonment processes have the same blurring effect (Schiffer 1987). Thus, between the occurrence of the socioeconomic activities that we wish to investigate and the period of archaeological research, the artifacts that are the object of study in the household approach may have been moved one, two, or even three times from their original use location to their modern archaeological location (Santley and Kneebone 1993). Before archaeologists can embark on a social analysis of Maya rural residential sites they must answer two questions: (1) What behavioral processes produced the site structure found by archaeologists? and (2) How do we investigate ancient socioeconomic processes when the artifacts that constitute our database no longer remain in their systemic context?

An answer to the first question is provided by the houselot model of residential site structure developed by Killion (1990, 1992a). On the basis of his observations of contemporary farming households in Veracruz, Mexico, Killion concludes that four spatial components compose the site structure of rural residences in the American humid tropics. The first component, the *structural core*, consists of the living structures, storage buildings, and other buildings that shelter household members and their belongings. Household members regularly sweep this area clean of refuse and discarded items, particularly the hard or sharp items that potentially can cause injury. Functional analyses of houses focus exclusively on this architectural component of the houselot. The second component is a *clear area* of extramural, hard-packed earth that surrounds the household’s dwelling structures. Within this area occur many of the productive socioeconomic activities that generate the hard material residues that archaeologists seek. These residue-producing activities include food processing, small-

³ See Schiffer (1987), Deboer (1983), and Cameron and Tomka (1993) for reviews of the relevant literature.

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scale craft activities, tool manufacture and repair, and some religious activities. Although most of the household debris is produced in this area, like the structural core it is carefully cleaned and maintained. Sweeping usually removes all but the smallest pieces of debris. Much of the production debris and household refuse generated within the structural core and clear area is regularly removed to an *intermediate area*, where these items are discarded. This component of the houselot frequently forms a ring that surrounds the clear area. The materials dumped in this area may become concentrated in mounded or stratified middens or they may be dispersed in thin, sheetlike scatters. Hayden and Cannon (1983) and Deal (1985) refer to this sector of the site as the toft, the area outside the dwelling and outbuildings where most productive activities occur and where trash accumulates. The final component is the garden area, where some of the produce consumed by the household is grown. Often the garden is fertilized with artifact-embedded household organic debris. High soil phosphate counts, dispersed artifact scatters, and spatial proximity to house remains are reliable archaeological signatures of ancient garden area activity (Killion et al. 1989; Dunning, Rue, and Beach 1997).

The houselot model describes not only site structure but artifactual waste flow streams within residential sites. Indeed, the model implies that the artifactual component of site structure is determined largely by the configuration of those streams. Santley, Hirth, and Kneebone (Santley and Hirth 1993; Hirth 1993; Santley and Kneebone 1993) note that the houselot model applies only to rural contexts where the space surrounding residential architecture is not sharply circumscribed. Other models of site structure pertain to Pre-Columbian households in town and urban settings. In terms of the spatial patterning of artifacts, few if any artifacts on abandoned residential sites remain in their original use location (Rothschild et al. 1993; Joyce and Johannessen 1993; Lightfoot 1993). The light living and organic debris from the structural core and the manufacturing and processing debris from the surrounding clear area are regularly swept up, collected, and transported to the intermediate area, where they are dumped and sometimes burned to reduce their bulk and odors. What remains in and around the structural core are compacted, clearly defined, but generally artifact-free living surfaces (Tourtellot 1983: 45). Small debris may become embedded in living surfaces, but it is difficult to develop an accurate picture of ancient socioeconomic adaptation on the basis of living surface data alone. How do we investigate Maya household socioeconomic activity assemblages given the intervention of transforming cultural and environmental site-formation processes?

As the houselot model suggests, most artifactual materials of interest are

found in middens or along structure peripheries. Depending on topography, morphology of residential architecture, layout of settlement, length of occupation, intensity and organization of production and consumption, and management of refuse disposal, middens may consist of deep, mounded, and possibly stratified deposits of dumped refuse or they may be thin, broadcast scatters of swept or thrown trash. Most of the materials necessary for an analysis of household socioeconomic organization reside in those middens. Note that middens are here described as *all* spatially concentrated trash deposits composed of household activity by-products. Additional materials may be found in dated fill contexts, pits, burials, hearths, and on living floors, but these supplementary materials often are few in number and the conditions of their deposition can be problematic. Although some proponents of the functional approach incorporate middens into their analysis (Hendon n.d.), most tend to ignore middens, especially the thin broadcast middens typical of commoner household locations, except to the degree that middens are sampled stratigraphically with test pits to establish ceramic chronology.

Having defined some of the principal behavioral factors responsible for the site structure of Mesoamerican agricultural households, we may ask how the socioeconomic substrata of household form can be reconstructed from the contents of houselot middens. Boone (1987: 336) has coined the phrase “midden catchment” to describe “the settlement area that encompasses all the refuse-catching activities that contribute to a single midden.” Boone’s definition highlights an important aspect of middens: each consists of the aggregate durable detritus generated by all or some sample of the debris-producing activities once conducted within the household (Killion et al. 1989: 286; Wilson 1994). Hypothetically, if a series of ancient households engaged in a similar set of activities, this should be evident in the composition of their midden assemblages if similar practices of refuse disposal have been practiced. As Boone has stressed, “to the extent that variability exists in the spatial distribution of refuse-producing activities in a site, the contents of a particular midden will vary according to which activities are taking place within its catchment” (1987: 339). Ideally, then, the relative frequency of artifacts within a midden should reflect the mix of activities particular to the corresponding household, although, as Boone (1987) warns, this is “a function of the varying amounts of refuse each activity might produce . . . [not] the relative frequency of the activities themselves”—cf. Mills (1989) and Wilson (1994). The complete midden of a household plus the assemblages of floors, fills, and features would constitute a “systemic inventory” (Lightfoot 1993: 170), defined as the aggregate detritus of all detritus-producing socioeconomic activities conducted by household members

within their houselot. From this inventory, the archaeologist should be able to reconstruct some sample of all household detritus-producing activities (Wilson 1994). Samples can be compared across households to examine socioeconomic heterogeneity and variability. At Itzan, this approach has been used to investigate variation in household socioeconomic standing and organization (Johnston n.d.).

Hammel (1980: 252) notes that households are not single events but processes that transpire, develop, and change over time. Because households go through a development cycle, they will at one point in time be different in terms of size, organization, and composition than at some other point in time. Unless that cycle is interrupted suddenly and traumatically, as in the case of natural or human-made catastrophes—e.g., Joya de Ceren (Sheets 1992; Sheets et al. 1990) and Aguateca (Inomata and Stiver n.d.; Inomata n.d.), slices of time within the household's life simply are not discernible in the archaeological record. The artifactual by-products of household processes move over time through the various spatial components of the houselot until eventually they are deposited in middens, the contents of which represent sort of a mathematical mean or average of all that has transpired socioeconomically within the household (Johnston n.d.). Just as households pool material resources to satisfy the needs and wants of their members, so the by-products of those expenditures are pooled in middens after household wants are satisfied. As the household changes in response to shifting economic or environmental circumstances or because of its developmental cycle, so its artifactual and architectural signature changes. Except when houses are very briefly occupied, the archaeologist can discern in houselot refuse only the mean or average of a household's socioeconomic activities, wealth, status, or kinship relations.

This artifactual mean within houselots corresponds to what Rapoport (1990) describes as the ideal focus of household archaeology: "systems of activities" within "systems of settings." Kent (1990a: 3) contends that archaeologists should not expect "to reconstruct anything *but* such systems from the archaeological record. Individual activities are simply not discernible. They are also probably unimportant to our understanding of the past." Binford (1981: 197) argues the same point, as does Yellen (1977: 134), who notes that what archaeologists generally find on residential sites are "the remains of many activities all jumbled together." As the studies of Killion (1992b), Santley and Kneebone (1993), Hirth (1993), and others (Kent 1990b) demonstrate, Mesoamerican household archaeology is most productive when it focuses on the long-term patterning of activities rather than reconstruction of single events or activities. Indeed, the most enduring properties of domestic sites are not discrete activity areas, which

rarely remain intact, but (1) the artifactual and architectural signatures of household spatial organization and (2) the aggregated by-products of socioeconomic activities conducted by household members over time within that organized space (Killion 1990; Santley and Hirth 1993; Wilson 1994).

To approach households from a social point of view, archaeologists need to shift their frame of reference from the house viewed as a spatially isolated cultural artifact to the houselot viewed as a unitary and integrated sociocultural entity. From the houselot's spatial organization and artifactual contents, archaeologists can draw socioeconomic inferences. The authors of this paper are not the first to encourage Mesoamericanists to follow this course (Smith 1993). Hayden and Cannon (1983: 160), Killion (1990: 211), and Santley and Hirth (1993: 4) all have urged archaeologists to take as their basic unit of household analysis not single structures or even single dumps but the entire architectural compound as well as its surrounding clear areas and middens. From the social perspective, one of the most important components of the houselot is its secondary refuse deposits, or middens. As Hayden and Cannon (1983: 125) observed more than a decade ago, "the range of potential data that can be extracted from such secondary refuse deposits is probably one of the most underdeveloped and important methodological concerns in archaeology." Although challenging to decipher, middens hold the key to the socioeconomic phenomena that proponents of the household approach wish to explore (Johnston n.d.). Wilson (1994) reviews several of the socioeconomic and cultural phenomena that archaeologists can expect to investigate through midden analysis.

In the Maya lowlands, a trend toward a social analysis of commoner households has emerged in recent years. One of the earliest and most significant contributions was made in the Copan valley, where archaeologists (Webster and Gonlin 1988; Gonlin 1994, n.d.) exposed several commoner houses and houseyards through unusually large-scale horizontal excavations. Houselot investigations on a somewhat smaller scale have been carried out at Itzan (Johnston n.d.; Johnston, Moscoso, and Schmitt 1992). In both cases, archaeologists exposed what might be described as the structural core, the surrounding clear area, and in some cases the intermediate area components of ancient houselots. Of course, Mayanists need not aspire to expose complete houselots through horizontal excavations, an approach that can be extremely laborious and prohibitively expensive. As research at several sites demonstrates, comparable results can be achieved through sampling and other experimental methods. At Sayil, where soils are thin and surface visibility is high, archaeologists (Killion et al. 1989; Tourtellot and Sabloff 1989; Tourtellot et al. 1989) have carried out ambitious, innovative, and large-scale investigations of entire houselots, includ-

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ing houseyard garden areas, through fine-grained analyses of surface assemblages. Surface trend analysis reveals patterned uses of space, including debris management practices, daily production loci, and interresidential agricultural activity. At Sayil and in the Petexbatun region of Guatemala, Dunning and his colleagues (Dunning 1989; Dunning, Rue, and Beach 1997) have enlarged the focus of analysis by combining surface trend analysis with soil phosphate testing in studies of rural and urban houselots and associated agricultural fields. Combining soil phosphate analysis with test pit excavations, Ball and Kelsay (1992) examined off-mound residential land use, site structure, refuse discard patterning, and socioeconomic activity in the upper Belize River valley. Their archaeological model of Maya houselot structure closely complements one developed by Killion (1990, 1992a) on the basis of ethnographic observation. In both cases, the basic unit of analysis was the houselot—the dwelling, associated buildings, and the immediate surrounding area where household socioeconomic activities were carried out and where the material by-products of those activities were discarded.

Recent Examples of the Social Approach

The social approach to ancient households is exemplified by recent investigations carried out at Copan (Webster and Gonlin 1988; Gonlin n.d.), Itzan (Johnston n.d.), and Sayil (Killion et al. 1989; Tourtellot et al. 1989). Proponents of the approach focus their efforts on extramural space—the clear and intermediate areas that constitute a houselot's nonarchitectural space. Precisely how the term is defined depends on site structure and project objectives. At Copan and Itzan, for instance, archaeologists excavated rural houselots centered around minimally platformed structures, none of which was built atop basal platforms. The extramural space most frequently exposed at these sites was courtyard space and the areas at the sides and rears of buildings. At Sayil, Killion et al. (1989) and Tourtellot et al. (1989) investigated residential structures, most of which sat atop substantial basal platforms. Rather than contrasting architectural and nonarchitectural space, the Sayil archaeologists drew a distinction between “structural” space (the basal platform and its residential architecture) and the “off-platform” or “interresidential” space between basal platforms (Killion et al. 1989: 284, 288). At Copan (Webster and Gonlin 1988: table 1), approximately 80% of the total space excavated in rural houselot exposures was nonarchitectural (range, 67.6% to 94.4%). Only 19% (range, 5.6% to 32.3%) of the total excavated space exposed architectural remains. At Itzan, the percentages are roughly similar: on average 61% (range, 39% to 76%) of the total space excavated was extramural, whereas 38% (range, 7% to 42%) was

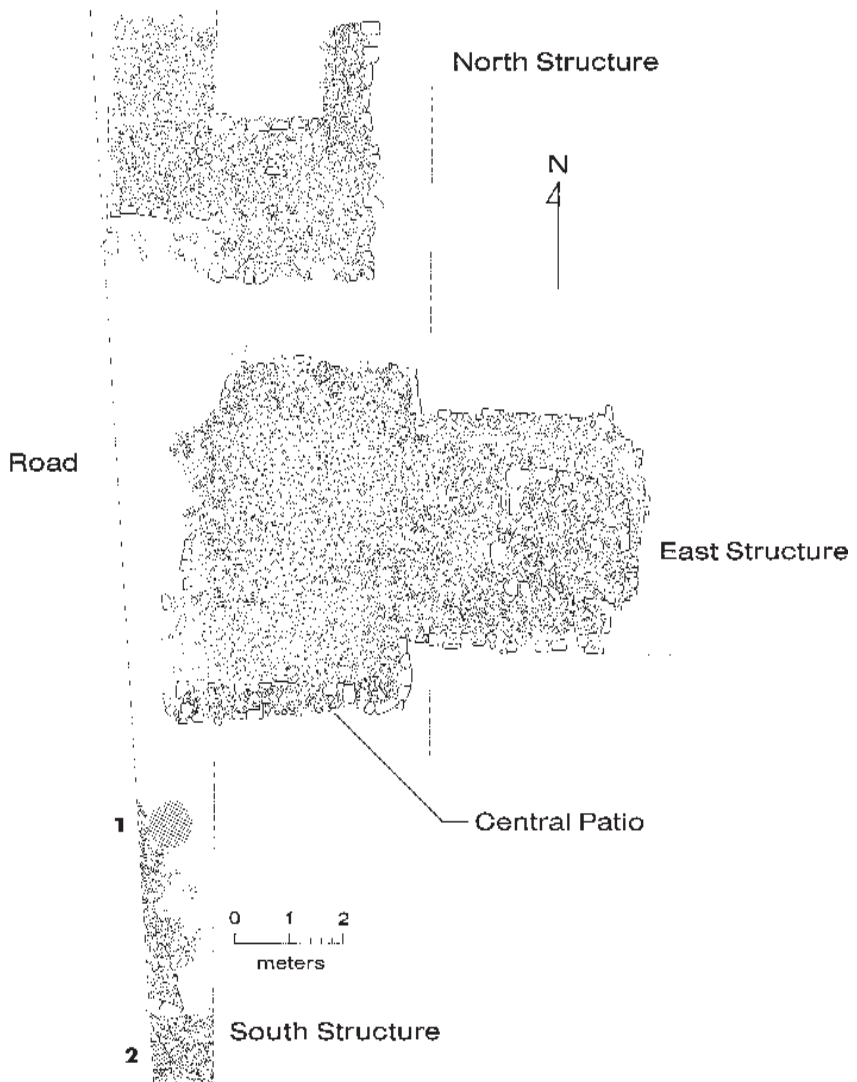


Fig. 1 Itzan IT4A group, a rural, nonmounded residential patio group. Note the presence of curated jar fragments (1) adjacent to an artesian well (2).

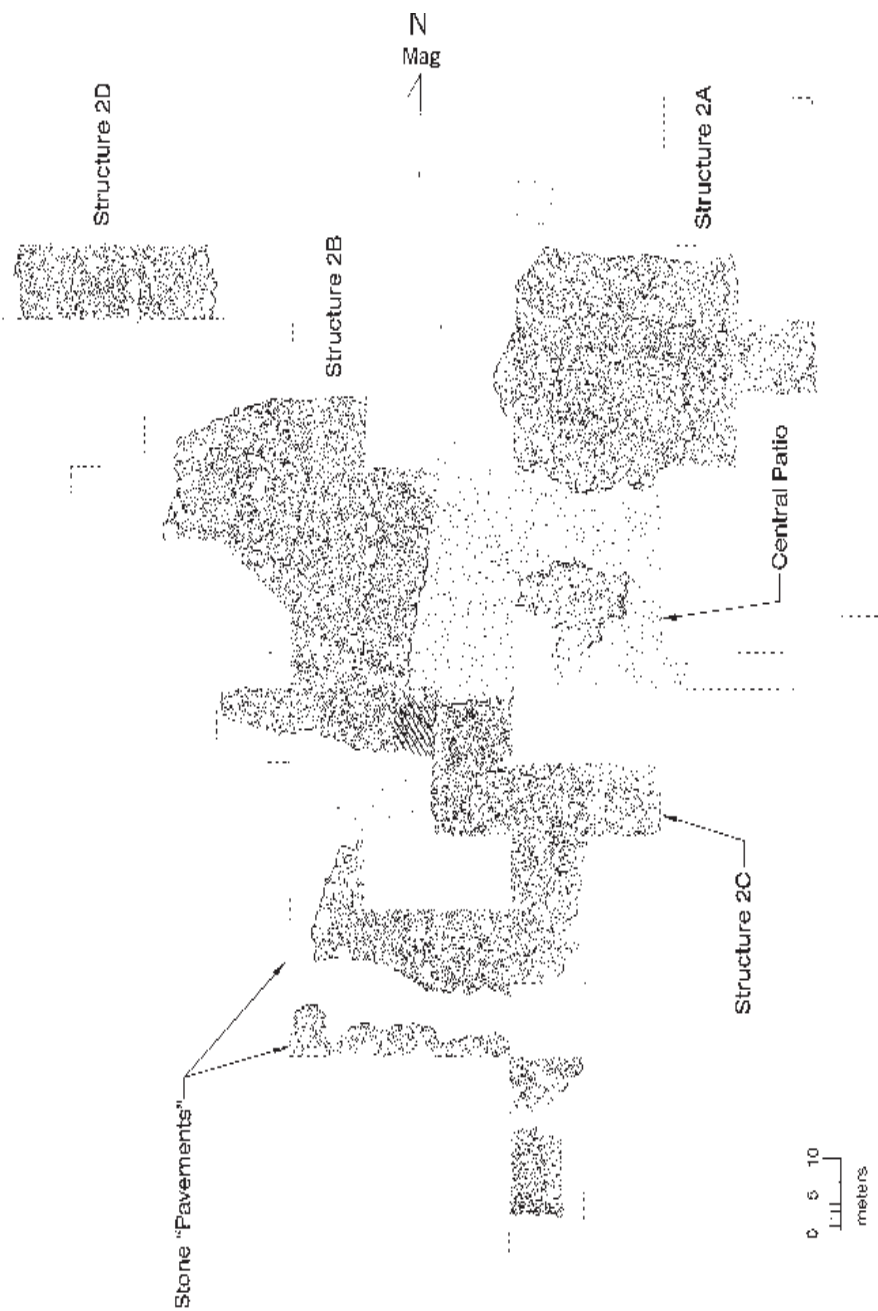


Fig. 2. Itzan IT2 group, a rural, basal-platformed residential patio group. Shaded area marks dense concentration of curated stone and ceramic artifacts between Structures 2B and 2C.

architectural (Figs. 1 and 2). At Copan and Itzan, extramural space is defined to include the patios and courtyards around which residential structures cluster. Patio space constitutes 19% of the total rural residential area excavated at Copan (range, 16% to 29%) and 14% at Itzan (range, 10% to 17%). The central courtyards of both sites yielded very few artifacts. Most of the excavated extramural space at these two sites lies to the rear of the residential structures, and it is there that most artifacts were found.

In the intensively surface-collected Miguel T quadrant at Sayil (Killion et al. 1989: table 1), 77% of the area examined was nonplatform (i.e., extramural) space and only 33% was structural space (supported by basal platforms). A mere 5% of the space examined was architectural. More than 95% of the Miguel T quadrant, in other words, was extramural space, most of it flat, open terrain evidently used for infield agriculture. Because soils are thin and surface visibility is unusually high at Sayil, the Miguel T quadrant was investigated through intensive surface collection rather than extensive horizontal excavation.

What components of the ancient Maya houselot have been exposed at Copan, Itzan, and Sayil? Let us assume for the sake of argument that Killion's (1990) model of residential site structure in the modern Sierra de los Tuxtlas region of Veracruz is roughly representative of ancient lowland Maya rural residential site structure (an assumption that cannot be proved or disproved). Judging from Killion's figure 7, we propose that on average the structural core constitutes 10% of the total houselot space, the clear area 40%, and the intermediate area 50%. (At Copan and Itzan, excavations were generally too small to expose much of the garden area component.) Returning to the Copan and Itzan data, Killion's model suggests that archaeologists at these sites have cleared all of the structural core (buildings were completely exposed in excavations at both sites) and some unknown but potentially significant percentage of the clear and intermediate areas. The Sayil project, in contrast, examined these three houselot components plus the garden area. At all three sites, then, archaeologists have examined precisely those sectors of the houselot identified by Killion's (1990, 1992b) model as the locations where the hard artifactual residues of household productive processes are most likely to be found.

Of what do these artifactual residues consist? What, in other words, do archaeologists find in extramural space? As stated elsewhere, the outside edges of a houselot's clear area are marked by a thin lens of artifacts constituting a sheet midden or broadcast scatter. Like the nonmounded residential structures excavated at Itzan, these shallow but horizontally extensive middens are frequently inconspicuous and difficult to detect. Thin but dense, they are most easily detected by the untutored eye in soil profiles. Sheet middens can contain high

artifact densities: several of the Itzan sheet middens (all less than 10 cm thick), for instance, yielded an average of 210 artifacts per square meter. The artifacts composing sheet middens are those that archaeologists identify as “domestic”: bits of bone, ash, and charcoal; obsidian blades and stone tools (mostly broken); sherds, most of them heavily eroded and broken into small pieces; fragments of smashed or exhausted groundstone tools; and lithic materials representing all or most phases of the lithic reduction process.

Midden location and density are largely a function of site structure, residential context (e.g., rural versus urban settings; see Santley and Kneebone 1993), and topography. At Copan, at least 65% of all artifacts recovered at rural residential sites were found scattered in bands 2 to 5 m to the rear of structures, to the sides of structures, and, in lesser densities, clustered along the front edges of structures (Fig. 3). The densest artifact scatters occur along the upper margins and slopes of the small knolls that most rural house sites occupy. At Itzan, where the terrain is considerably flatter, the great majority of artifacts were found in 3 to 10 m wide bands behind residential structures. In the Miguel T quadrant at Sayil, middens occur behind and to the sides of buildings as well as along the lower edges of basal platforms (Killion et al. 1989: 285). At all three sites, the central courtyards and the interior floors of buildings are virtually free of artifacts still in a systemic context.

Most systemic contexts are destroyed or heavily disturbed by abandonment and postabandonment formation processes. Thus, artifactual features (defined as artifact clusters indicating ancient activity locations) in the structural core and clear areas are few. Of the 57 artifact features excavated in Copan’s rural residences, at least 30% consisted of dense concentrations of small lithics and ceramics clustered along the interior or exterior bases of building walls. Similar artifact clustering has been documented in the modern Maya highlands, where provisionally discarded broken or damaged materials are stored along structure walls in anticipation of future repair or reuse (Deal 1985: 253–260). Because these items have little immediate value, they are among the few articles left behind when a house site is abandoned. An artifact cluster of this sort almost certainly does not constitute evidence of an “activity area,” traditionally defined as a location where a specific and identifiable economic activity transpired. The locations of these clusters reflect refuse discard rather than refuse production behaviors.

Although evidence of ancient activity areas is rarely found, Maya curate and provisional discard behaviors are occasionally represented in the archaeological record. The strongest candidate for provisional discard at Itzan occurs in the IT4A group (Fig. 1), where a very dense concentration of large pottery frag-

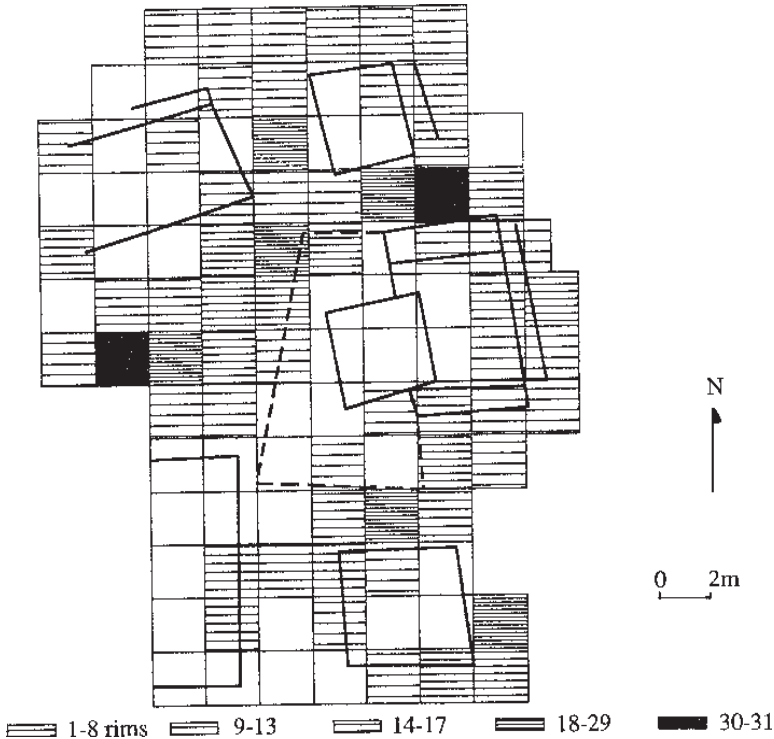


Fig. 3 Site 11D-11-2, Copan, Honduras. SAS/GRAPH map illustrating spatial distribution of ceramic rim sherds found in middens, structure peripheries, and occupation surfaces. Density of grid shading indicates artifact density. The lowest artifact densities occur on surfaces within buildings.

ments was placed in antiquity along the east edge of the patio group's southernmost structure. Six to eight broken jars had been piled, one atop the other, within the lower half of a large broken jar. Sandwiched between the nested vessels were thin, ashy layers of debris containing burned bones, shell fragments, and clay, recalling a practice of ash storage described by Hayden and Cannon (1983: 132). Eventually, the outer jar collapsed, concentrating the materials in a dense artifact cluster. This feature is functionally related to an adjacent one: an artesian well located 4 m to the south. Presumably, the water jars broke near the well and were curated for possible reuse at their present location. Curate behavior is probably represented in the IT2 group (Fig. 2), where between Structures 2B and 2C archaeologists discovered dozens of chert cores, hammerstones, tools and tool fragments, and a large chert block resting on the ancient occupa-

tion surface plus several large jar fragments leaning against the outer wall of Structure 2C. Curated artifacts (Schiffer 1987: 90–96) are valued materials set aside for possible future reuse. The occupants of the IT2 group stored in accessible but architecturally marginal space a handy supply of chert blocks and cobbles. Because chert is available along the entire Itzan escarpment, these materials were left behind when the house compound was abandoned. Artifact concentrations such as these, which remain in their systemic context, are extremely rare in Maya domestic sites.

Feature types that often survive formation processes include subterranean modifications of the ancient land surface. Among these are hearths, six of which have been found in the Copan rural residences. The Copan hearths are evidenced by shallow, ash- and charcoal-filled basins containing very few artifacts. Although hearths provide evidence of the location of cooking activities, because the surfaces surrounding them were once swept clean they do not yield the complementary artifactual data needed to identify precisely what kinds of food preparation and cooking activities occurred at these locations.

To discern commoner household organization from site structure and material patterning, then, Mayanists need to combine extensive exposures of residential architecture with intensive subsurface sampling of toft and possible garden areas. Hypothetically, such investigations should provide archaeologists with the data needed to do structuralist, functional, and social (or household) investigations. Innovative means of analyzing middens and comparing interhousehold midden assemblages are urgently needed. Midden analysis constitutes an important key to understanding household socioeconomic organization and variation. Until methodological innovation in this area progresses, the social approach will not achieve its full potential.

CONCLUSION

We return to the question posed by this paper's title: What do Classic Maya commoner houses mean? Additionally, are the meanings attributed to houses by the three theoretical perspectives described above mutually exclusive, or do they complement one another? Although we have presented the structuralist, functional, and social approaches in opposition to one another, in fact they complement one another methodologically and could easily be combined. Under conditions of sufficient architectural preservation and given a willingness among materialists to embrace the perspective for experimental purposes, the structuralist approach can be applied to architectural form and decoration to investigate generative cultural structures. Although Hodder (1990: 48) asserts that artifact patterning within houses also can be analyzed structurally, he, like his

functional predecessors, does so on the basis of a "Pompeii premise," the reliability of which is highly problematic. The structuralist approach may be most productive when used to analyze large, well preserved, or decorated structures such as palaces and temple complexes.

The functional approach is most useful when the analyst wishes to determine whether a mound or building ruin is a domicile or some other structure type. The approach can also be applied productively to certain questions concerning the household developmental cycle, and it is a necessary component of population reconstruction studies (cf. Culbert and Rice 1990). Whether or not the approach can be used to determine basic family form remains to be established.

The social approach can be used to examine the socioeconomic organization of the household, the task-oriented, residentially localized group associated with the house, plus the articulation of the household with larger, including regional and pansocietal, socioeconomic processes and institutions. Recognizing the importance of site-formation processes, the household approach examines the site structure of houselots, which is the basic unit of analysis. Through its examination of artifact assemblages in secondary refuse aggregates, the approach provides a platform for cross-household comparisons of relative wealth, status, and socioeconomic organization and variation that do not simply involve comparisons of architectural morphology and materials. Now that Mayanists have documented the layout and construction histories of so many buildings, it may be useful to return to previously excavated groups and more thoroughly examine their courtyards and peripheral areas.

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