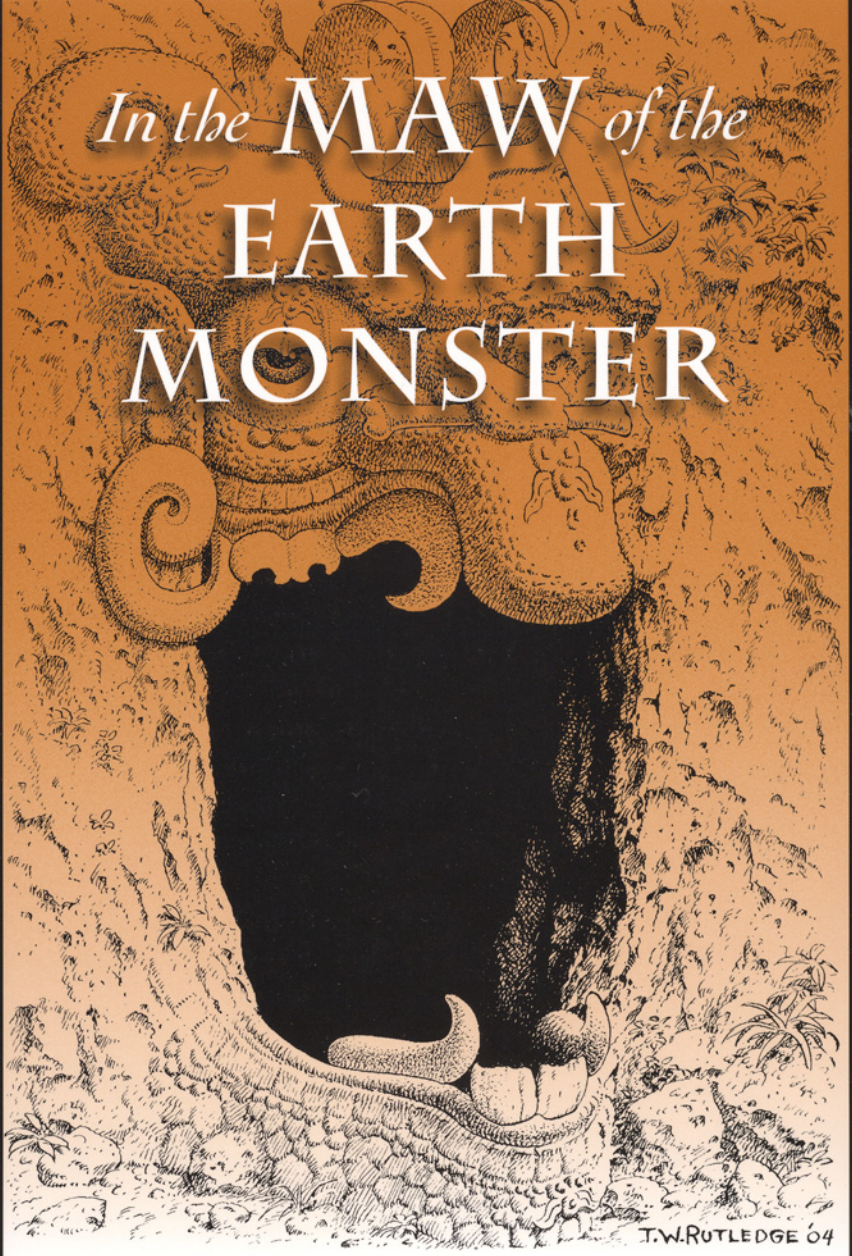
In the MAW *of the* EARTH MONSTER



Mesoamerican Ritual Cave Use

EDITED BY JAMES E. BRADY & KEITH M. PRUFER

In the Maw of the Earth Monster

The Linda Schele Series in Maya and Pre-Columbian Studies

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This volume is dedicated to three pioneers in cave research:

Sir J. Eric Thompson (1898–1975)
Evon Z. Vogt (1919–2004)
and
Doris Heyden

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In the Maw of the Earth Monster

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CHAPTER 1

Introduction: A History of Mesoamerican Cave Interpretation

JAMES E. BRADY AND KEITH M. PRUFER

This volume attempts to bring together a selection of the most recent field research on ritual caves and the latest interpretations of their meaning and significance for modern and Pre-Columbian Mesoamerican peoples. To appreciate the significance of this volume, one has to recognize that the interpretation of cave use within a framework of religion and ritual is a relatively recent development. That is not to say that archaeologists and anthropologists have only recently begun to investigate caves. The history of cave investigation can be traced back more than 150 years, beginning with memorable descriptions by Stephens and Catherwood of such caves as Bolonchen and the Gruta de Chac (Brady 1989:Chap. 2). At the end of the nineteenth century, a number of archaeological studies of surprisingly good quality had been carried out in the Maya area, including Henry C. Mercer's (1975) *The Hill-Caves of Yucatan,* Edward H. Thompson's (1897) *Cave of Loltun, Yucatan,* George Gordon's (1898) *Caverns of Copan, Honduras,* and Eduard Seler's (1901) description of the caves of Quen Santo in the Highlands of Guatemala. After this early period, prior to World War I, when the above reports represented some of the best methodological excavations being carried out, cave investigations all but disappeared as a focus of archaeological investigation between the World Wars. Descriptive cave reports reappear after World War II, but it is not until about 1985 that a self-conscious subdiscipline focused on cave utilization begins to emerge in the Maya area (Brady 1997).

The development of interpretive models of cave use contrasts sharply with the history of field investigation that has been sketched above. The first major synthetic statement does not appear until 1959, with the publication of J. Eric Thompson's "The Role of Caves in Maya Culture." Thompson begins the article by noting that "the considerable body of information" on cave use had never been brought together. Combining ethnohistory, ethnography, and archaeology, Thompson enumerates a number of uses of caves, all of which are related to ritual

practices. Significantly, he never mentions habitation as a use. He treats even reports of temporary refuge in times of unrest skeptically and notes, "But one may doubt that this kind of occupation was sufficiently prolonged to have had much effect on their contents; most caves in Central America are too damp to be suitable for long residence" (1959:129). This represents a sharp break in archaeological thinking in that it appears that almost all previous writers had assumed without question that cultural remains in caves were related to habitation.

This groundbreaking study appears to have gone pretty much unnoticed, in part because it appeared in a publication of Hamburg's Museum für Völkerkunde. Indeed, Ed Shook, an avid bibliophile and Thompson's colleague at the Carnegie Institution of Washington, confessed in an interview that he was unaware of the article's existence (Edwin Shook, personal communication, July 21, 1998). A revised version published in 1975 as an introduction to the reprint edition of Henry Mercer's *The Hill-Caves of Yucatan* was more significant to the discipline. The accumulation of data in the sixteen years between the two articles allowed Thompson to elaborate the second work into eight named and numbered functions: (1) sources of drinking water; (2) sources of "virgin" water for religious rites; (3) religious rites; (4) burials, ossuaries, and cremations; (5) art galleries, perhaps in connection with religious rites; (6) depositories of ceremonially discarded utensils; (7) places of refuge (a minor use); and (8) other uses. All of the ritual functions were mentioned in the earlier work. It is interesting, however, that a nonreligious function, "sources of drinking water," was added (but dispensed with in a single paragraph) and "places of refuge" was accorded status as a minor function. Most of the newly described functions were pulled from a lengthy section of the first paper, "Other Uses of Caves," so that the section in the second paper called "Other Uses" consists of only two short paragraphs.

A serious shortcoming of Thompson's reorganization is its tendency to fragment the central role of caves as loci of religious rituals. In the original article, "Religious Rites in Caves" is the first activity discussed, but it is relegated to the third function in the second article. Thompson must be credited with calling attention to the use of virgin water, but he clearly became enamored of his discovery, as indicated by his elevating it to the second function. From all evidence it is an extremely minor function that should have been treated as an activity associated with the religious role of caves.

He further fragmented the central role of caves in religious ritual by elevating several obscure ceremonial uses of questionable importance to the level of independent functions. Thus, "art galleries" and "depositories of ceremonially discarded utensils" should also have been treated as behavioral aspects of cave rituals.

It is possible that Thompson saw each cave as having a single, narrowly de-

fined function. In discussing Zopo Cave, he suggests that it may have been dedicated to earth gods, but he raises the possibility that it was devoted to lineage founders, as if these two focuses are incompatible in the same cave (Thompson 1975:xxxiii). Since he defined these uses so tightly, they applied only to caves, and there was little that related to the larger body of surface archaeology. Thompson's fragmentation of a central focus on ritual also made it more difficult to contextualize the functions within the larger social system. It is unfortunate that he made no attempt to indicate how cave-focused rituals articulated within larger religious systems or to assess the importance of caves within Maya society, because there was no one else in the field at the time who was capable of doing so.

One aspect of cave use that would clearly indicate the social importance of subterranean features is the relationship between caves and surface architecture. In his earlier work, Thompson (1959:128) says, "Mention should made of caverns beneath buildings, notably the High Priest's Grave at Chichén Itzá, but discussion of them would vastly extend our subject." This is intriguing because it suggests that Thompson was aware of multiple examples that would require an extended discussion. At the same time, the comment is near the end of the paper, so it would appear that he did not consider the matter as important as the other uses that formed the core of the article. In the later work, where space certainly was available, the issue was relegated to "other uses" where Thompson (1975:xlii) simply says, "One should also note Maya structures built over caverns, of which the High Priest's Grave at Chichén Itzá is the most important because of the human bones, worked jades, pearls, and vase of Mexican onyx, all seemingly thrown into the cavern before the aperture was closed." Thompson's failure to develop this theme is interesting in view of Heyden's work (discussed below).

In evaluating their impact on the field, it must be recognized that the implications of Thompson's syntheses were not immediately accepted by archaeologists. While Thompson defined caves as spaces where ritual activities occurred, this did not automatically end archaeologists' thinking of habitation as the major cave function. Brady found that throughout the 1980s, the most persistent question archaeologists asked was why Naj Tunich should not be interpreted in terms of habitation. Only after a decade of publications did habitational and utilitarian interpretations begin to disappear in the 1990s, although they still cropped up in some publications on Central Mexico (Hirth 2000; Manzanilla et al. 1996). Also on the negative side, relatively uninformed archaeologists working on caves often used Thompson's article to mask the fact that they had no understanding of what was occurring at their site. Interpretations often consisted of wedging their data into Thompson's very static categories.

These comments are not meant, however, to minimize Thompson's contribution. When cave archaeology finally emerged in the Maya area in the 1980s,

it coalesced around these syntheses, and they formed the foundation on which the field has been built.

At the same time that Thompson's revised synthesis appeared, Doris Heyden took a very different approach in a series of articles interpreting the cave beneath the Pyramid of the Sun at Teotihuacan (Heyden 1973, 1975, 1981). Because she was attempting to explain the placement of a single feature at a particular site, her work focused on the meaning and significance of caves rather than on their function. For Heyden, the placement of the cave beneath the pyramid could be understood only in the context of the role of caves in myth and cosmovision. While Thompson used ethnography and ethnohistory, Heyden drew even more heavily on these sources, perhaps because fewer archaeological data were available for Central Mexico. This, along with the focus on meaning, tended to embed her work in an explicit social context.

Heyden (1975:134), it is important to note, directly addresses the question of the importance of caves in Mesoamerica. The prevalence of *-oztoc,* Nahuatl for "cave," in the site names of Central Mexico and the presence of the cave motif in site glyphs, led Heyden (1975:134) to conclude, "They constitute an important element in town sites."

While Heyden was cautious in her wording, others recognized the implications of her argument. René Millon (1981:235), for example, says explicitly, "Nevertheless, the stubborn fact remains: the pyramid must be where it is and nowhere else because the cave below it was the most sacred of sacred places. Whether or not the Teotihuacanos believed that the sun and the moon had been created there, the rituals performed in the cave must have celebrated a system of myth and belief of transcendent importance."

The articles about the cave beneath the Pyramid of the Sun were not Heyden's only contribution to cave studies. In "Los ritos de paso en las cuevas," Heyden (1976) explores the possibility that caves were regularly used in rites of passage. She examines documentary evidence to show that caves played a role in a number of rituals from birth to death. These ceremonies may have been some of the most important in the society. She is probably the first to suggest that at least a portion of the ascension ritual of rulers was held in caves (Heyden 1976:21). It is also interesting that, whereas most investigators have connected caves with ceremonies in the agricultural cycle, she has related cave use to the individual life cycle. Unfortunately, the article has tended to be ignored, perhaps because it was published in Spanish. It is hoped that with the publication of an updated version in English in this volume, it will receive more attention.

In other articles, Heyden considers the role of caves as an important feature of the sacred landscape (1983) and their association with birth and fertility (1987a, 1987b, 1991). Her work is significant in developing a model of the meaning of caves that can be used to explore why they were being used in a particular man-

ner. The articles on the cave beneath the Pyramid of the Sun are particularly noteworthy because they ascribe an importance to caves that is of an entirely different order from anything suggested in the literature at that time she was writing.

On the negative side, the often-noted separation of Mesoamerica into Central Mexico and the Maya areas is quite apparent in the writing of both Thompson and Heyden, as neither cites nor appears to be aware of the other's writing. If Heyden, in particular, had been aware of Thompson's synthesis and had seen the reference to the High Priest's Grave, it might have suggested that the cave/architecture relationship she noted at Teotihuacan was part of a widespread pattern.

Barbara MacLeod and Dennis Puleston's "Pathways into Darkness: The Search for the Road to Xibalbá" (1978) differs significantly from previous works. While professing to draw from a broad range of sources, including epigraphy, iconography, and ethnography, the authors actually utilize relatively little published material and do not even cite Thompson's or Heyden's work on caves. Instead, the article relies on MacLeod's and, to a lesser extent, Puleston's fieldwork. This in itself sets the work apart as being the first theoretical discussion by archaeologists with extensive cave experience, since neither Thompson nor Heyden had actually worked in caves. That experience allowed the authors to discuss artifacts within their original archaeological context and permitted them to make convincing suggestions about behavior, such as the placement of children's skeletons in rimstone dams, which suggests child sacrifice. Their main theoretical thrust is to associate caves with the Underworld, a model that is constructed from the *Popol Vuh* and Lacandon Maya ethnography. In discussing rites and activities within caves, however, the authors mention rain ceremonies and refer to cave-focused deities as the owners of the mountains, game, or lightning and as the givers of maize. All of these activities and figures tend to be associated with the earth in indigenous thought rather than with the Underworld.

In the final theoretical article to appear before the beginning of a formal cave archaeology, Mary Pohl and John Pohl (1983) propose that rituals resembling the *cuch* ceremony (involving the sacrifice of a deer and a peccary) may have been performed in caves by the ancient Maya. The outline of the *cuch* ceremony, drawing on Mary Pohl's (1981) earlier work, is quite convincing, but only the most circumstantial evidence is presented to tie the ritual to caves. A central feature of the *cuch* ceremony, the raising of a pole to represent the world tree, is related to several native informants who identified ribbed stalagmitic columns as ceiba trees, the world tree of the Maya. The authors note as well that deer bones and sacrificial blades have been recovered from caves. Finally, they suggest that caves may have played a role in some part of accession rituals. Here again, they produce little evidence to mount a convincing argument for such a

connection. Nevertheless, the article is important for recognizing caves as "the most sacred precincts of the Maya" (Pohl and Pohl 1983:28) and for raising the point that they were important enough to be the site of the society's highest politico-religious ritual.

It is quite clear from the preceding summary that when the subdiscipline of Mesoamerican cave archaeology arose around 1985, it had a remarkably small body of theoretical and interpretive material to draw on. A critical factor in this lack of development was the absence of cave specialists. While the lack of specialists affected all aspects of cave research, one of the most seriously impacted areas was cave scholarship. Other than Thompson and Heyden, none of the earlier investigators were aware of the large corpus of published material that already existed. Later work, therefore, did not build on the foundation laid by earlier studies. Lacking a dialog with comparative material, reports rarely rose above the level of elementary data presentation and, as a consequence, almost never produced meaningful interpretive conclusions.

The major early works by cave specialists since 1985 attempted to address the lack of scholarship. There appears to be a self-conscious attempt to order and synthesize the data so that patterns begin to emerge. Juan Luis Bonor (1989) provides a number of topical summaries in the early chapters of *Las cuevas mayas: Simbolismo y ritual* and then attempts to compile an encyclopedic inventory of all known Maya caves. Brady's (1989) dissertation presents a chronological development of cave investigation and contains hundreds of references. A chapter entitled "Use and Meaning of Caves" covers a number of themes and contains literature reviews, and Brady conducts comparative analyses for each section of the site report, including such things as ceramics, artifacts, and skeletal material. Finally, the forty-seven-page bibliography is meant to serve as a guide to the cave literature. He later replaced it with an annotated bibliography, *Sources for the Study of Mesoamerican Ritual Cave Use,* which formally defines the field's literature (Brady 1996, 1999).

This synthetic thrust is no better illustrated than in Andrea Stone's (1995) *Images from the Underworld: Naj Tunich and the Tradition of Maya Cave Painting.* Before this work, one could reasonably question whether there was enough evidence to justify "Art Gallery" as one of Thompson's (1975:xxxvi) major cave functions. Stone's exhaustive survey of all known Maya cave painting sites assembles a huge body of data that is far more extensive than the field realized at the time. Stone, like Brady, also tends to view cave use in a Mesoamerican perspective, so that data from sites in Central Mexico are presented as well. She uses her data as well as information from iconography, epigraphy, archaeology, ethnography, and ethnohistory to provide an extensive discussion of cave use.

A second change resulting from the formation of a specialized subdiscipline is that interpretation is now led by field investigators, which has altered the di-

rection of interpretation in a number of interesting ways. In earlier interpretive works, writers using folklore, iconography, ethnohistory, and ethnography tended to deal with the concept of the cave rather than with any physical reality. This relegated archaeological evidence to a minor role. Even when archaeological data were invoked, they tended to be used very uncritically. For example, Thompson, who was the best at employing such data, simply notes the presence of sherds on the floor of caves as evidence for the collection of virgin water, something that no cave archaeologist would accept today. Since the 1980s, however, archaeology has been at the forefront of Mesoamerican cave studies, and the archaeological record is regularly used as the critical evidence in mustering support for an argument. This expansion of the cave literature has meant that interpretations have tended to be less speculative and more heavily grounded in data.

This orientation is evident in art history in the contrast between Andrea Stone's work and that of Karen Bassie-Sweet. The core of Stone's (1995) book is data that she collected herself, augmented by a careful combing of published sources. She is clearly mindful of cave context and comfortable with archaeological data. Bassie-Sweet (1991, 1996), on the other hand, had little experience with caves at the time she was writing and rarely uses archaeological data. The highly speculative nature of her proposals also appears to be a throwback to earlier interpretive efforts.

Finally, the role of ethnography in cave studies has been extremely curious. Sapper (1925:192) may have been the first to suggest that the ancient Maya probably treated caves as sacred places, much as the modern Q'eqchi' do. There are also a number of early ethnographies, particularly from Oaxaca (Beals 1945; Parsons 1936) and the Maya area (Redfield and Villa Rojas 1934) that record substantial amounts of data on caves, but none of these provide what could be considered an extended theoretical discussion of these features. In the postwar period, moreover, mention of caves declines as ethnographers steered away from what they considered an "idols behind altars" topic. Caves tend to be mentioned only in passing since World War II, so, although all of the interpretative writers mentioned above made explicit and extensive use of ethnographic analogy, ethnographers have not played a central role in the resurgence of cave studies. This is illustrated by the fact that there are few article-length publications dealing with cave ceremonies. Interestingly, the first article that we have found devoted to a cave ceremony is Jarslaw Petryshyn's (1969; see also Barrera Vásquez 1970; Uke 1970) description of a Lacandon rite, which has been translated for this volume. For Central Mexico ethnographic articles focusing on cave ritual are almost nonexistent (Grigsby 1986).

Evon Vogt was a notable exception to this generalization about the role of ethnography, in part because he had been interested in using ethnographic data

in the interpretation of the ancient Maya for over forty years. Although he did not focus primarily on caves, Vogt's proposal that pyramids represent sacred mountains has proved particularly useful to cave archaeologists (1964a). He also noted the importance of cave shrines in communication with the supernatural (1964b; see also Blaffer 1972 and Laughlin 1977 on Zinacantan).

Vogt's (1969, 1976) enthnographies provide some of the most extensive discussions of the use of caves, and his (1981) analysis of sacred sites within a landscape approach has heavily influenced the thinking of the current generation of cave archaeologists. Fortunately, there does appear to be a resurgence in interest in caves within ethnography, as evidenced by recent contributions concerning all areas of Mesoamerica (Christenson 2001; Knab 1995; Kohler 1995; Manca 1995; Monaghan 1995; Pitarch Ramon 1996; Sandstrom 1991; Wilson 1995).

Origins of This Volume

The present volume grew out of an invited session, "Integrating Ethnography and Archaeology: Caves in Modern and Ancient Maya Ritual Life," at the 1994 American Anthropological Association meetings in Atlanta, Georgia. An emphasis on the complementarity of ethnography and archaeology is evident in the present volume. Among our contributors, Abigail Adams, James Brady, Doris Heyden, and Evon Vogt were participants in that session. Dennis Tedlock and Jaime Awe also gave presentations. The other major contribution to the volume is a cave session organized by Patricia Austin and Keith Prufer at the 1997 Society for American Archaeology meetings in Nashville, Tennessee. That session broadened the focus of the present volume from the Maya to encompass all of Mesoamerica. Jaime Awe, Cameron Griffith, Sherry Gibbs, Clifford Brown, Keith Prufer, Janet Fitzsimmons, and Andrea Stone were participants in Nashville.

In assembling this volume we have endeavored to encapsulate the breadth of current knowledge of cave use in ancient and contemporary Mesoamerica. What becomes apparent is the strong continuity between the archaeological past and the ethnographic present with respect to the use of caves by indigenous peoples of Mesoamerica. Ethnography and archaeology link caves to fundamental belief systems of peoples who see themselves as an integral part of an animate and life-sustaining earth. These systems transcend religious doctrine and implicate themselves in every facet of political, spiritual, and social existence. There is no aspect of Mesoamerican life that is not linked to the belief in a living world, the central features of which are the powerful symbols of mountains, water, and caves. We have found that caves are points of access to the central focuses of these belief systems. The true sources of power exist inside the mountain, in a

mythical time and place that has been vividly portrayed in all available mediums since the dawning of social history. Caves are portals—places where humans have attempted to intervene and mediate with the forces that make the universe animate.

This book draws on the experiences of anthropologists and art historians who have set out to explore the relationship between humans and the sacred earth. The authors come from varied perspectives and backgrounds and look at their data as archaeologists, linguists, and ethnographers. They all, however, reach a similar conclusion: that Mesoamerican peoples' use of caves is and has been a fundamental part of the character of their social life.

The chapters by Stone and Moyes bring new perspectives on the use of cave-spaces by the Maya, as well as insights into the interrelationship between artifact distributions and cave morphology. The idea that caves were utilized in a manner that took into account their spatial layout is not new (Brady 1989:415; 1997), but these are sophisticated and synthetic explorations both of which find distinctive patterning in cave deposits that demonstrate repeated and purposeful ordering of archaeological features. The authors examine enduring Maya patterns of directionality—vertical and horizontal—and cruciform that have been aptly discussed in ethnographic (Hanks 1984:136; Sandstrom 1991) and iconographic literature (Coggins 1980; Freidel and Schele 1988:426n7) in cave contexts with favorable results.

Stone (Chapter 10) uses pan-Mesoamerican cognitive models to propose that the intentional ordering of cave-spaces was a critical element in the structuring of ritual activities, and that this ordering was accomplished in both traditional and innovative ways. She draws heavily on iconographic models of the cosmic grid, with its horizontal and vertical divisions, color-directional symbolism, and concepts of the multilayered universe, to support her proposal that caves represent an ideal laboratory in which spatial analyses can illuminate specific ritual behaviors. She astutely notes that cognitive models she believes motivated the placement of cave artifacts are extremely difficult to verify from archaeological evidence alone, especially where contexts have been disturbed by looting, natural disturbances, or other degradations.

Moyes's chapter (Chapter 11) takes spatial analysis into the cave, as she looks for patterning in cave morphology and artifact distributions that may produce archaeological "signatures" useful for comparative analyses. Like Stone, she asserts that the formal and repetitive characteristics of ritual behaviors should be exhibited in the material remains of the activities in meaningful ways that are detectable by archaeologists. Moyes's laboratory is the spectacular cave Actun Tunichil Muknal, located in central Belize—a largely undisturbed five-kilometer tunnel that contains evidence of repeated and long-term ceremonial use. She applies technologically sophisticated Geographic Information System (GIS) to

facilitate a global assessment of artifact placement and distribution patterns. Her study indicates that multiple cognitive spatial models resulted in clearly bounded clusters of artifacts that have internal patterns within larger intentionally modeled groupings.

Awe, Griffith, and Gibbs (Chapter 9) also focus on Actun Tunichil Muknal, though their interest lies in the two shaped slate monuments on a high ledge deep in the cave. The two monuments are carved to resemble a stingray spine and an obsidian blade, implements associated with autosacrifice by bloodletting in Pre-Columbian texts and art. They argue that cave monuments are a regional tradition in central Belize and document two additional examples from Laberinto de las Tarántulas and Actun Chechem Ha, and that slate was a preferred medium for these monoliths. They also link the use of the cave and the stelae to nearby surface sites where similar carved monuments are found.

Chapters by Adams and Brady and Stuart and Vogt take ethnoarchaeological approaches to the investigations of cave utilization by the modern and the Pre-Hispanic Maya. Both papers draw heavily on the terrestrial orientation of Maya religions and conclude that elements of modern ceremonial behaviors were almost certainly present in ancient ritual activities. Adams and Brady (Chapter 12) look at Q'eqchi' Maya cave pilgrimages, the identification of pilgrims with the earth deity, the Tzuultaq'a, and the offerings to this deity. Their data are important, since they detail not only specific types of offerings made during pilgrimages, but also the ritual importance of the objects offered. They also demonstrate that while rituals performed in caves are solely the domain of men, women are a critical element in the acquisition of ritual paraphernalia and offerings made outside of the cave. Participation of each person involved in petitioning the Tzuultaq'a is conditioned by gender, and the deity is marked by both female and male attributes.

Vogt and Stuart (Chapter 7) also utilize ethnographic data from the well-studied region of Highland Chiapas combined with the recent identification of the hieroglyphic toponym for cave to discuss long-standing continuity between past and present cave-focused ceremonial activities. Their ethnographic analysis illuminates how deeply intertwined earth symbolism and features from the natural world form a broad system in which metaphor and action create a sacred and animate universe. The recent interpretation of a glyph meaning *"ch'een,"* or "cave," has far-reaching implications for our understanding of how the Maya interacted with the sacred landscape. While archaeological and analogical data have increased interest in and understanding of cave utilization in ancient Mesoamerica, the role of elite segments in these activities has been largely conjectural. This new evidence from indigenous texts indicates that caves were an important concern of elites and refocuses discussion on the larger implications of political discourse on the sacred landscape.

Pure ethnographic research is at the heart of chapters by Petryshyn and Sandstrom, both of whom approach cave ceremonialism from very different perspectives. The chapter by the late Jaroslaw Petryshyn (Chapter 13) is included here for its description of a cave ritual by the Lacandon of Chiapas. Descriptions of cave rituals are, by virtue of their secretive nature, rare in the ethnographic literature. Petryshyn's account, based on fieldwork conducted in 1968, is the first to report on a Lacandon religious ceremony in a cave. The cave described is named after the god Tsibaná, who is consulted during heavy rainfalls and is prayed to for success in agriculture. He resides in a cave that bears his name. Petryshyn's account leads us from the village to the cave and guides us through a detailed description of the protagonists and events that transpired.

Sandstrom's chapter (Chapter 3) examines earth symbolism and cave-focused rituals of the Huastecan Nahua of Central Mexico. He demonstrates that indigenous knowledge of the earth manifests itself as an intersection between science and religion, with all objects and beings having sentient and animate qualities; this knowledge is the "symbolic rendering of empirical fact." Elaborate myths become an explanatory mechanism that perpetuates and invigorates these beliefs. Nahua cave-focused activities and beliefs are but one manifestation of these complex relationships. Sandstrom's data point repeatedly to the role of ritual specialists in mediating human needs with earth deities in the cave context, a theme revisited in most of these chapters.

Heyden's chapter (Chapter 2) is a synthetic review of literature regarding the use of caves in the Valley of Mexico. She draws data from both early colonial documents and modern ethnographic accounts. She contrasts those events that can be loosely defined as "rites of passage" with other specialized ceremonial behaviors. Heyden was one of the first researchers to examine the link between mythology and cave utilization, and her data are rich and detailed. The metaphors for creation and birth, so prevalent in Mesoamerican myths, link caves to the origins of humans and deities alike. Like Sandstrom, Heyden finds that rain and water are dominant themes in cave-focused beliefs and actions, and that the importance of deities responsible for these life-giving elements is pan-Mesoamerican. Her work also strongly implicates earth-focused belief systems in the healing and illness complex, with caves being the focal point for offerings and prayers to ensure health and well-being.

Prufer (Chapter 8) examines the roles of ritual specialists as a fundamental social feature in traditional societies and proposes that archaeological data can inform us on the types of actors involved in ceremonial cave activities in the past. Drawing on data from one of the most extensive cave surveys in the Maya Lowlands, he examines cave morphology, artifact types, and artifact distribution patterns to support his proposition that there were two fundamental types of protagonists represented in Classic Period cave contexts: political actors attached

to ruling institutions; and shamanic individuals, who were more peripheral to statecraft and the posturing of elites. These actors likely used spaces in very different ways and toward differing ends. Political aspirations were expressed in legitimation ceremonies held in open and well-lighted cave spaces. More restricted specialists operated in dark cave interiors. Rockshelters are an important part of this equation, with evidence of repeated mortuary use and evidence of large-scale burning and massive offerings.

Two chapters deal with the archaeology of caves in Oaxaca. Rincón (Chapter 6) examines the little-known wealth of cave sites in the Coixtlahuaca Basin located in the northernmost section of Oaxaca's Mixteca Alta. He notes early missionaries' accounts of cave cults that flourished throughout the highlands of Mesoamerica on the eve of the Spanish conquest, with special attention to interior cave paintings and examples of ceremonial behaviors. He compares these accounts to archaeological data from several spectacular cave sites in the basin, with the aim of better understanding the continuity between Pre-Columbian and historical use of these sacred spaces.

Fitzsimmons (Chapter 5) reports on the archaeology of Blade Cave, located in the Mazatec region of Oaxaca, and one of the few caves from this region ever subjected to archaeological investigation. Her detailed descriptions of artifact distributions link the historical and prehistoric use of the cave to local and regional sites and places the region in a framework of larger Mesoamerican cave traditions.

Two chapters focus on the prehistoric use of caves in the Yucatán Peninsula, a region where subterranean spaces were both sacred portals and the sources of life-sustaining water. This region is particularly difficult to understand archaeologically, in part because caves were used for both secular and religious purposes, a phenomenon that is uncommon elsewhere in Mesoamerica. The chapter by Brown (Chapter 15) proposes that caves and cenotes at the Postclassic capital of Mayapán were more important in determining settlement patterns than they were in the relatively well watered highlands. He stresses that both their utilitarian function and their ideological significance are deeply intertwined. Cave features became cosmological centers of Yucatecan communities, and this significance is reflected in both the spatial arrangements of architecture in the landscape and the written and oral history of the Maya.

Rissolo's chapter (Chapter 14) focuses on caves in the Yalahau region of Quintana Roo, near the surface site Tumben-Naranjal and the secondary center of San Cosmé, which are linked by a three-kilometer-long *sacbe* (literally, "white way"; a raised road). This region is wetter than Brown's study area in the northern Yucatán, and though there are many water-bearing caves and cenotes at Yalahau, they are neither the only nor the most accessible sources of water. Still, these water sources were the locations of considerable ceremonial activity,

even when it was difficult to access very modestly sized pools. Rissolo documents the regular maintenance of cave passages and the frequent occurrence of rock art near the pools. The draw of these caves was both the presence of water and, possibly, the specific symbolic importance of water from underground spaces. In addition, access to many caves may have been restricted; vertical and modified entrances indicate that at least some caves were hidden or their use was discouraged. Like Prufer, Rissolo recognizes that rockshelters were conceptually the same as caves, though they may have functioned as more open and publicly accessible spaces.

Finally, in our concluding chapter we examine the role of cave studies in modern anthropological and archaeological thought. We review the production of comparative models and appraise the value of regional and local analysis. Despite growing interest in sacred landscapes in the study of prehistory, there is still strong skepticism about methodological approaches used to understand ancient religious thought and action. We attempt to look at the history and causes of this skepticism and propose new directions for the field of Mesoamerican cave archaeology.

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PART 1

CENTRAL MEXICO

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CHAPTER 2

Rites of Passage and Other Ceremonies in Caves

DORIS HEYDEN

Introduction

Some of the most important rituals in people's lives are rites of passage, defined by Van Gennep (1960) as rituals that mark the transition from one status to another, or those rites that accompany each change of place, social position, and age. These rites are not restricted to the passage of a person from one social status to another in the course of that individual's life, but also "mark recognized points in the passage of time (new year, new moon, solstice, and equinox)" (Turner 1987:386). Nevertheless, there are many rites that affect people and that are not "of passage." Here I shall discuss some ceremonies as they have been practiced in caves in Pre-Hispanic and early colonial Mexico as well as today.

Creation

The first rite of passage in the life of an individual, of a group, or of a cosmic event is creation, birth. The sun and the moon are said to have been born in a cave, according to the early chroniclers Antonio de Herrera and Ramón Pané (Herrera 1945:305; Pané 1974:96). As Mendieta said in the sixteenth century, referring to the creation of the Fifth Sun in Teotihuacan, "after [Nanahuatzin] threw himself into the fire and was transformed into the sun, another [divine personage] went into a cave and came out as the moon" (Herrera 1945:87).

Even the sky was created in the interior of the earth, which can be interpreted as a gigantic womb, a cave. The "Histoyre du Mechique" describes the journey made by the gods Tezcatlipoca and Ehecatl into "Tlalteutl [or Tlaltecuhtli], who is the earth itself": Tezcatlipoca entered Tlaltecuhtli's mouth and Ehecatl, the navel, "and both joined at the heart, the center, of the earth, and there they formed the sky, the low-level sky" (Histoyre du Mechique 1973:105). A similar myth reported by Gossen (1972) tells us that among the Chamula of Chiapas

the Sun lived in the center of the earth before moving up into the sky. Caves are important in Chamula cosmovision; the earth is laced with caves that eventually reach its edges, and the earth lords live in mountain caves, where they control "all forms of precipitation, including accompanying clouds, lightning and thunder" (Gossen 1972:136–137).

Many gods, too, were created in caves. The Florentine Codex refers to the place where the oldest of the deities, the god of fire, Xiuhtecuhtli, resided, in the middle of blue water, in the navel of the earth (Sahagún 1969b:19, 41, 88–89). As has been mentioned, the navel, or center, of the earth is the equivalent of a cave, the womb.

Maize, the basic cereal of Mesoamerica, one of whose names is Cinteotl, Divine Corn, was born when the deities went into a cave where the god Piltzintecuhtli was in intimate contact with the goddess Xochipilli, and from this relationship Cinteotl was born (Histoyre du Mechique 1973:110). Sixteen hundred gods were created in Chicomoztoc from a great flint knife that fell from the sky and was shattered there in the cavern (Mendieta 1945:83).

Humans also came from caves. The womb of the earth was the place of creation of ethnic groups. It had many names; the best known is Chicomoztoc, "Seven Caves." Another is Tamoanchan, the paradise of the Mother Goddess, the place of birth, the *cincalli,* or house of maize (Seler 1963, 1:25). Garibay defines *cincalli* as the cavern that is "the place of the origin of humanity" (Durán 1967, 2:584). Seven groups emerged from Chicomoztoc, the caves "from which their ancestors came," where "their fathers were born in caves" (Durán 1967, 2:218–219). According to Pané (1974:22, 93), "all humankind was created in two caves." Not only do the chronicles mention these cave-births, but they are portrayed in pictorial codices, among them the *Atlas de Durán,* the Codex Xólotl, the Codex Selden Roll, and the *Historia Tolteca-Chichimeca* (Figures 2.1, 2.2, 2.3, 2.4).

The Florentine Codex cites Mexica women who said that "in us is a cave, a gorge . . . whose only function is . . . to receive" (Sahagún 1969b:118), and also to give life. A child created in the human cave was called "a precious necklace, a rich feather" (Sahagún 1969b:118). When a woman was about to give birth the midwife took her to the steam bath, the *temazcalli,* also called *xochicalli,* "house of flowers"—since the flower is a sexual symbol related to the uterus, and the *temazcalli* represents an artificial cave, a place of birth (Sahagún 1969b:151).

Rites in Caves Today

The Tzeltales of Pinola, Chiapas, believe that the spirit of each person is in his or her heart or throat but also is found in caves high up in the hills, where monkeys, who like to steal the spirits, cannot reach them (Hermitte 1970:49–50).

Figure 2.1. One of the seven groups that emerged from Chicomoztoc. Redrawn by Aarón Flores, after Durán (1994, Pl. 3).

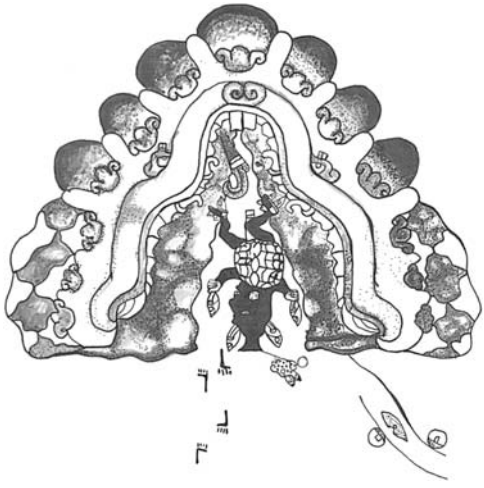

Figure 2.2. Gods and humans were born in Chicomoztoc, here represented as the open maw of the earth. Redrawn by Aarón Flores, after Burland (1955).

An informant in Apoala, Oaxaca, tells us that a woman of that town took her newborn child to a cave for a baptism ceremony with other babies. In order to distinguish her baby from the others she tied a colored ribbon to the infant and then went outside for a moment. On returning she found that her child had disappeared, though the ribbon was still there. The cave, she felt, had stolen her baby. A priest then exorcised the cave and placed a cross at the entrance. Later, these rites were no longer held there nor did the cave steal more infants (Gregorio García, personal communication with M. E. Smith, May 1970).

Graniceros, who carry out their rites in caves, are said to control the weather.

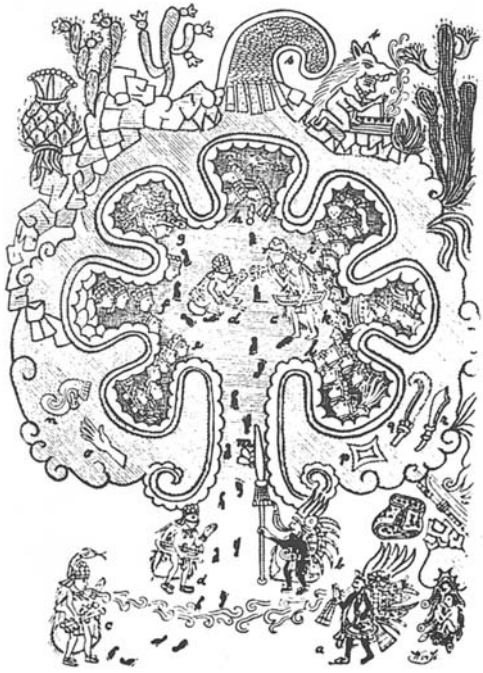

Figure 2.3. Chicomoztoc, place of origin, showing the seven caves of creation. Redrawn by Aarón Flores, after the *Historia Tolteca-Chichimeca* (1976).

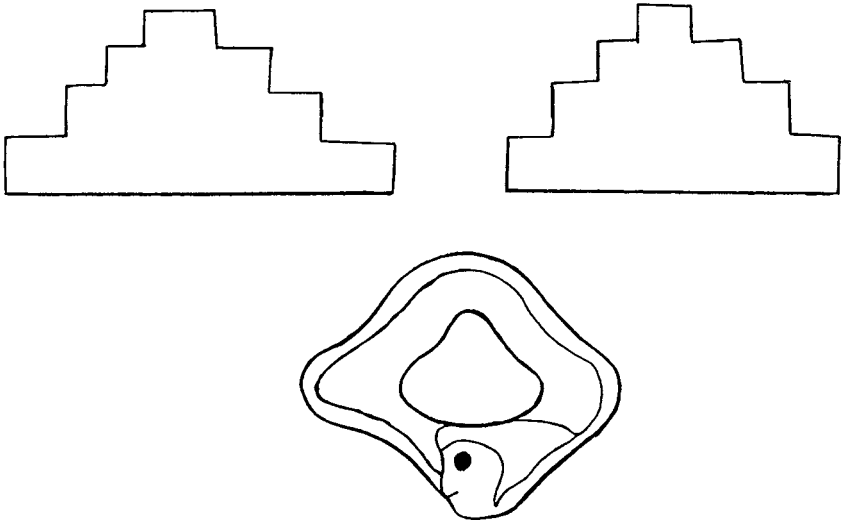

Figure 2.4. Glyph for Teotihuacan, showing the pyramids over a cave symbol. The head in the cave may represent an oracle. These images in a sixteenth-century document show the importance of caves at Teotihuacan. Redrawn by Aarón Flores, after the Codex Xólotl (1951:Map 1).

These beliefs are still common and can be found in the customs of some regions of Mexico. The late Guillermo Bonfil (1968) described *granicero* rites in the caves at Iztaccihuatl and Popocatepetl. Supposedly, there are schools to train *graniceros* in these mountains. According to Bonfil, the *graniceros*, the controllers of meteorological phenomena, belong to a strictly controlled organization. In order

to become a member and attend the cave ceremonies a person must have been "called from above"—that is, designated to work on earth with the supernatural powers that manage rain, thunder, lightning, and the climate. But only those who have been struck by lightning are eligible for this important task. If they survive the baptism by lightning, they cannot deny their destiny and must join the organization (Bonfil 1968:99–128).

Cave rites ensure a child's health and well-being. For example, in Chalma, a place famed for pilgrimages, there is a cave with a Christian shrine within it. The umbilical cords of children are frequently left in two caves for its saint, the Señor de Chalma, one at the bottom of the hill, and one at its summit. Some parents leave the cord at a sacred cypress tree. As a result of this ceremony the child will be fortunate throughout his life (John Hobgood, personal communication, 1974).

Many caves are said to be inhabited by little men called "*cheneques*" in some regions. The land immediately beneath the earth is Tlalocan, the abode of the rain god Tlaloc, who also fructifies the land so the plants will grow. This vast area is considered by some to be a gigantic cave. Nevertheless, this subterranean world—Talocan, as the Nahuatl-speaking people of the Sierra de Puebla call it—is identified in different ways in different places, but it is always beneath, "*tlalticpac,*" the earth's surface. It is called the "sacred earth" by the Nahua of the sierra, who also refer to Talocan as the Underworld. Entrance to this place of natural riches, of sustenance, is through caves that are guarded by *cheneques* who keep out the undesirable, for example, people who kill deer when they do not need their meat, who simply wound animals, or who destroy vegetation needlessly (García de León 1969:294–295n 20). The Lord of the Animals lives "in a palace" or great cave that is located in a part of Tlalocan found directly beneath the San Martín Tuxtla volcano in Veracruz, according to some accounts (García de León 1969:294–295n 20).

In the region of Xico, Veracruz, the Owner of the Hills and all the flora and fauna there is Juan del Monte Cuauhxibantzin, the *tlamatine mayor* (*tlamatines* are the local *tlaloques,* divine personages who control rain, lightning, and thunder). Juan lives in caves with his wife, doña Juanita Cuauhxibantzin. According to an informant in Xico, don Anastasio, Juan del Monte is the earth itself, and people must ask his permission and that of his wife to take something from them, for example, a tree they cut down. Another informant, don Luis, tells that the first time he planted his fields he inspected the land to see how many caves were there. When he found the largest one he made an offering in it to "Saints" Juan and Juanita and requested permission to plant. Don Luis explains that the divine couple has a corral within the cave where animals are kept (for they are also lords of the animals), and when they are approached correctly, with offerings, they put the animals in the corral so the seeds just sown will not be trampled (Noriega Orozco 1994:20, 40, 96, 123, 126).

In the Isthmus de Veracruz region, the Earth Lord, the Chaneco, who controls water, plants, and animals, resides in Talogan, as it is called there, the subterranean world rich in the products of nature, where caves, which are the Chaneco's home, abound. In these caves, as well as on certain hills and at waterfalls, healers and shamans retire to dedicate themselves to ascetic practices during twenty-one Fridays (Münch 1983:173). At the nearby Cerro de las Pulgas there is a cave with hieroglyphs on its walls that are considered to be magic symbols left there by the ancestors. It is here that those who are initiated as healers are taught about natural phenomena, the properties of medicinal plants, the cycles of rainfall, how to cure illnesses, when they should observe sexual abstinence, and how to offer copal incense to the Chaneco, earth god (Münch 1983:173).

Knab, who dedicated many years to fieldwork in San Miguel Tzinacapan, reveals the importance of caves in the cosmovision, healing practices, and everyday beliefs of this town in the Sierra de Puebla. In "Geografía del inframundo" (1991) he lists four entrances to the Underworld, two of which are through caves: the north entrance by the "cave of the winds," which is the access to the world of the dead; and the south entrance, Atotonican, a hot spring at the back of a cave where clouds are produced. The other entrances are Apan, a large lake (east), and Tonalpan (west), on a mountaintop where the sun stops and continues only after midnight. Linda Manzanilla et al. (1994:156) note that two of these entrances or caves have toponyms that also exist near Teotihuacan: Apan in the east and Mount Tonalan to the west. They suggest that the Sierra de Puebla myth and a Teotihuacan version of sacred geography may be based on an archetypical Mesoamerican conception of the underworld. It is now well known that caves have played an important part in planning, history, and myth in Teotihuacan (Heyden 1975, 1987).

In Tzinacapan, the *curandero* (curer, practitioner) analyzes problems in a cave, each *curandero* in his own special cave. He travels to the underworld in dreams to search for the soul of his client. The practitioner's job is to restore the essential harmony between the three essential aspects of the soul: the *tonal,* or spiritual source, which can become separated from the body; the *yolo,* or internal animating force—referred to as the heart in Sierra Nahuatl, and the *nagual,* or alter ego, which is born and dies at the same time the person does. Equilibrium among these three aspects, according to Knab (1991), especially in the case of illness, ensures social, spiritual, and natural environmental harmony. In the case of illness, the curer diagnoses the problem by means of dreams, in which he travels through the underworld. The dreams are not interpreted as a psychiatrist would, but are used by the healer to observe, in dreams, the geography, the features of the terrain of Talocan, the Underworld, in order to compare their symbolism, their features, with those in everyday life on the earth's surface (Knab 1991:36, 48).

Numbers are important in Tzinacantan and often indicate when the *curandero*

must go to the cave. Each geographical feature in Talocan has its own number, and these numbers indicate the distance of a river, lake, and so on, from the center of Talocan. Fourteen is the very center, and the most beneficial numbers that the curer dreams are those that coincide with aquatic sites.

This is a complicated concept, not easy to understand. The number the *curandero* dreams, for example, determines the day or time when the client should go to the cave with offerings and to request permission to cultivate the earth, to irrigate it, and to prepare the seed. When maize is to be planted, the practitioner sees in dreams the place and number that will determine agricultural success. If the practitioner dreams of a river that is in tenth place in Tlalocan, this means that in ten days the rains will begin to fall and in ten days offerings should be made and the seeds prepared for the first planting. Permission to plant is always requested of the sacred earth by leaving offerings at the cave. The "root" of a newborn, that is, the umbilical cord, is also planted in the sacred earth or in the milpa or under the floor of the house (Knab 1991:32, 33, 47–48). The *curandero* in his cave continues to send his dreams to Tlalocan to determine which agricultural rites are to be carried out and when.

The farmer who requests permission of the earth to sow seeds within her must also give thanks with offerings at harvest time, and if he has removed too much water for his plants, he takes flowers and candles to the water hole. If he or any other inhabitant of Tzinacantan kills too many animals, he must take offerings to the cave in order to pay for damages to the environment (Knab 1991:53).

In Tzinacantan the people leave abundant harvest offerings at the caves (Knab 1991:54). Some informants, however, believe that Tlalocan gives rather than receives. Prócoro Hernández, who lives in Cuetzalan near Tzinacapan, says that water from the numerous caves in the area is pure because it comes from Tlalocan where there is no contamination. Money and power are also guarded in caves; therefore it is necessary to propitiate the beings within (María Elena Aramoni, personal communication, cited in Aramoni Burguete 1990:145–146). "Everything we need comes from Tlalokan madre, Tlalokan padre" (the earth), says informant Juana Nazario (Aramoni Burguete 1990:150, 153).

Life in a Cave

Josefina Romero was born in a cave in Tlalpan, Mexico City, in the 1930s, as were her five brothers and sisters. The cavern—for that is what it was—gave its name to the street, Calle de Cuevitas. The enormous cave was formed from a number of chambers. Smaller ones that led off the main area served as bedrooms, kitchen, and so on. An altar holding numerous figures of Catholic saints, Pre-Hispanic images, candles and incense burners with copal, flowers, and other

objects, was at the rear. Candles and oil burners provided light. "Aside from candles, there were dishes with petroleum, my mother soaked rags in this, there were six on each side," says Josefina. The entrance to the cave was very large. There was no door, because when Josefina was a child burglaries were rare in that semirural area. Near the entrance, Josefina's mother had her treadle sewing machine, and there was a table for meals and cutting fabric, for the children to do homework, and for any other activity that required a flat space. The cave was warm during the cold months and cool when it was hot outside. The father sold charcoal and firewood—the latter could be collected in the neighborhood—which could be stored in one of the chambers. Mr. Romero was also a *curandero,* a healer, as his daughter Josefina would become.

Curing was done by first sprinkling holy water—brought from the nearby Saint Augustine Church—on the floor of the cave, then by sweeping the floor; after this, cleansing ceremonies, *limpias,* were performed with different herbs and flowers. One of the major ceremonies carried out in the cave was the ritual dance, the Concheros. This dance, in which men, women, and children participate, and which supposedly is reminiscent of Aztec rites, is dedicated both to religion and to pleasure and is performed along semimilitary lines, with strict control over the participants. Josefina's father was captain of his seventy-member group, all of whom practiced *conchero* dancing inside the cave, every member carrying a candle. The cavern was so large that at times it accommodated one hundred dancers.

Mexico City, however, grew to the south, the cornfields disappeared and became major avenues, buildings were constructed. Probably it was all this activity that caused the cave to collapse with the whole Romero family inside. One of the new structures was a hospital, whose employees witnessed this disaster and thought everyone had been killed. Rescuers dug out the family, all of whom were alive. The altar was untouched, and Josefina believes that the cave itself protected them. Not long after this Insurgentes Avenue covered what once was this grotto home.

Caves can be dangerous. Sorcerers who are hired to harm people take "good" offerings to a famous cave near Cuetzalan, the Chivostok. The offering consists of copal, black hens, and liquor, among other things. *Brujos,* or sorcerers, can "steal the soul" of individuals and perform other diabolical acts, but if the persons who have ordered these fail to cover the cost of the offerings and the *brujo*'s work in the cave, the *maleficio*—the evil act or spell—has no effect (Aramoni Burguete 1990:157).

The Mixe area, like most of Mexico, is dotted with caves, all of which play a significant role in religion and myth. They are used for curing and other rituals. The presence of archaeological objects indicates long, continued use. Among the Mixe of Oaxaca, a great cavern in a hill called Tsinyuikyoy, "Enchanted Hill,"

is said to be the home of the lords of rain and lightning. At midnight, when the big cave opens its mouth, people leave offerings of turkey, copal, incense, and other things (Aramoni Burguete 1990:147). Another cave, *ma·ŝung hut,* the cave "of the infants," is considered to be the navel of the world, since the Sun and the Moon, the Four Winds, Thunder, and all things in the heavens and on earth are said to have issued from there (Lipp 1991:48). People, many of them coming from far away, go to the caves to petition for wealth, and on New Year's Day rites are carried out inside a cave on Granary Mountain for this reason. Many Mixes go to caves to ask for money and cattle from the divinities within. In return for riches granted, Ene, one of the divinities, asks only for sacrificial fowl (Lipp 1991:48).

Tepoztlan, in the state of Morelos, is surrounded by dramatic mountains that are the home of numerous caves. Rites have been carried out there since Pre-Hispanic times, and many continue to be observed today. Fiestas in honor of San Juan are held here, where much attention is paid to propitiating the *aires,* or winds, called *huentli.* June 24 is the Day of Saint John, and the festivities begin on the twenty-third, when a good harvest is requested of the *huentli.* Offerings here and at a neighboring town, Coatetelco, are made to the sacred landscape, mainly in caves but also on the hills, in a lake, and even in ruins on a mountaintop called Moctezuma's Place. These offerings to the *huentli* are miniature vessels similar to some found in archaeological context and contain small amounts of chicken, *mole,* and tamales. At Coatetelco these offerings are left very early on June 24, and at 8:00 PM altars with food for the *huentli* (bread, *mole,* chocolate, tamales wrapped in banana leaves) are placed in the church, accompanied by songs and ceremonies. It is said that in the late nineteenth century a statue of Saint John was placed in the lake at Coatetelco for a day so he would be sure to provide the area with water all year (Druzo Maldonado, personal communication, August 1994).

San Andrés de la Cal is a village a short distance to the south of Tepoztlan. In the *Relaciones geográficas* it is called Acuecueyacan (Acuña 1985:185). There are many caves here, and offerings are made in most of them. When a procession goes to the caves to propitiate the *huentli,* a woman accompanies the procession, blowing a whistle to call these winds.

At Xoxotzin hill, near Jojutla, offerings to the *huentli* and to the forces of rain and agricultural sustenance are made on May 3, the Day of the Holy Cross, when the land and plants are honored all over Mexico. Until recently, *graniceros,* those who "control the weather," climbed this hill during the festival in order to touch the stones there. Dampness or lack of it on their hands told them if the coming months would bring rain or not (Druzo Maldonado, personal communication, August 1994).

The great cave at Oztotempa, Guerrero, is well known. It is a natural fault

two hundred meters in diameter and two hundred meters deep. At the bottom of this gigantic hole are four caves, says one informant, each one with a garden where seeds of all kinds grow, but principally corn of many colors. These paradisiacal caves are guarded by four giants, each one related to a world quadrant. These giants—much like the *tlaloque* of Pre-Hispanic myth—control the different types of wind and rain and crack whips to make the noise of thunder. Tradition has it that when the Augustinian fathers came to this region in 1533, they destroyed the *momoztlis,* native altars, and the people threw their stone idols into the cave in order to preserve them, although they were then inaccessible.

Today the people of thirty communities near Oztotempa petition for rain and the blessing of seeds at the great hole. Participants start coming about two weeks in advance; the main ceremonies are on May 1 and 2, in honor of the Day of the Holy Cross on the third. About two thousand persons take part. At least one hundred crosses elaborately decorated with flowers, mostly marigolds, are taken to the edge of the cave, where there is also a small chapel. Formal organizations, such as *mayordomías,* organize the rites, which include native dances, music, and offerings of food and candles in the church. Most important is the difficult six-kilometer climb up the mountain to Oztotempa from Attiaca or Zitlala, where most of the preparations have been made. At intervals each heavy wooden cross is again covered with garlands of flowers and candles and incense are burned. Farmers (as here all the men are) carry seeds to the chapel to be blessed. There is constant music and songs, or, rather, prayers that are recited in a singsong voice. Offerings of food, flowers, and candles are placed around each cross around the cave and special offerings called "*canastas*" (baskets) are prepared. *Canastas* are parts of a maguey on a framework of twigs and covered with flowers, bread, fruit, chocolate, cigarettes, turkey cooked without salt, green *mole,* fruits, and copal. As participants proceed to the cave they offer a prayer to each cross, and finally prayers and incense are offered to the four world quadrants, to the cave, the winds, the Cross, Saint Mark, Saint Isidore, and Saint Francis. Then turkeys, chickens, and the *canastas* are thrown into the cave. With these rites the arrival of rain is ensured. If it does not come, the keepers of waters, winds, and agricultural benefits in the Oztotempa cave must be propitiated all over again (Sepúlveda 1973).

There are ritual caves in the Chilapa and Tlapa municipalities, also in the mountain region of Guerrero. One such cave is the Lagunita at Colotapec, recently closed off because *brujerías,* or witchcraft rites, were practiced there. Rock carvings on the cave floor that supposedly were magic symbols caused authorities to take their drastic action. Before this, people from different villages came to leave chickens, liquor, cigarettes, candles, bread, and cut paper in honor of Saint Mark on his feast day, and also during Holy Week and at Christmastime. At the entrance to the cave there is a stalagmite two meters high that the people

believe is a statue of their saint, and here they place their offerings. Deeper into the cave a stalagmite joins a stalactite, forming one column, which is said to represent Jesus Christ. This sacred image also receives offerings. Even farther in, a small cavity is dedicated to the Virgin Mary and candles are placed here, as well as liquor below it, on the cave floor (Samuel Villela, personal communication, August 1994). It will be remembered that liquor has always been a ritual offering in Mexico.

On May 3, at Atenxoxola, at another cave, there are festivities for the Holy Cross that include a rite of passage, the changing of the *mayordomo* in charge of the ceremonies. Inside the cave there is a sacred spring (now blocked off with a metal railing because pilgrims at times bathed here) and six places where offerings are left. The offerings are curved branches covered with paper adornments; food, candles, and cigarettes are also left. In one of the chambers of the large cave two stalactites are identified as the Virgin Mary and a little goat. The goat also receives offerings so that it will protect the people's animals (informant Roberto Marcos Tepetlayehuca, reported by Samuel Villela, personal communication, August 1994).

Death also finds its way into caves. After all, caves form the entrance to the Underworld, which is not only Tlalocan, place of riches, but also Mictlan, Land of the Dead. Burgoa (1934:336), more than three hundred years ago, wrote of caves in the Mixtec region of Oaxaca that served as "doors to the inferno" and also as funeral chambers for the "putrid mummies of their kings and lords." In northern Mexico there are many dry caves where "well-preserved remains of Indians wrapped in cloth have been found," according to some old accounts (Aveleyra et al. 1956). The colonial chronicler Pérez de Ribas describes a case in which a man was pulled by invisible hands into a cave where the skulls and skeletons of other unfortunate persons were found. Hearing his cries for help, the townspeople together with two priests went to the cave, where the priests exorcised the man and all the skeletal remains, then they baptized the entire local population. Of course these bones were not what had been left after the devil had consumed the humans, as some thought, but must have been from ancient burials; nevertheless, they served a purpose in converting the people to Christianity (Pérez de Ribas 1944:213).

In many of the Pre-Hispanic monthly fiestas the sacrificial victims were interred in caves. Children offered to the mountain-water goddess, Iztaccihuatl, whose image was kept in a cave in the dead volcano, were sacrificed in the same cave (Durán 1977:248, 250). Herrera (1945:307) says that when a cacique, or ruler, died, his body was preserved by a fire ritual and then, mummified, was placed in a cave. Motolinía (1941:50) describes the sacrifice to Tlaloc of children whose bodies were placed in a cave, which was then sealed until the ritual was repeated the following year. It has been suggested that this human offering

to rain deities and to a cave may have taken place in the cave (see Figure 2.4) beneath the Pyramid of the Sun in Teotihuacan (Heyden 1975). Today in Zongolica, Veracruz, it is believed that babies who die before they are baptized are transformed into *tlatzinihkeh,* bearers of thunder and lightning who live in caves (Martínez and Reyes 1970:544).

Caves, like mountains and water holes, are sacred all over the world. In Mexico caves have always been used for rituals. The rites cover the life cycle of people and of phenomena; they observe all steps from birth to death.

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CHAPTER 3

The Cave-Pyramid Complex among the Contemporary Nahua of Northern Veracruz

ALAN R. SANDSTROM
ILLUSTRATED BY MICHAEL A. SANDSTROM

We who are women . . . in us is a cave, a gorge.
(QUOTED BY FRAY BERNARDINO DE SAHAGÚN 1969 6:118)

In June 1998, a combined group of Nahua and Otomí people from northern Veracruz, Mexico, undertook an elaborate pilgrimage to two caves at the peak of a distant, sacred mountain in order to appeal for rain.[1] The caves are the homes of water and thunder spirits, and the pilgrims brought offerings to assuage the spirits' apparent anger. Probably as a result of El Niño, the region was suffering from the worst drought in living memory, and the corn and other crops on which these people depended for food were threatened by the extreme conditions. The air was filled day and night with thick smoke from innumerable forest fires burning out of control more than a hundred miles to the west in the central highlands of Mexico. People were worried about the drought, and, clearly, something had to be done.

The pilgrimage was organized by Encarnación Téllez Hernández, known by everyone as Cirilo, a powerful shaman, or ritual specialist, from the Nahua village of Amatlán (a pseudonym) where I have conducted ethnographic field research since 1970.[2] I knew that the situation must be grave for the people of Amatlán and their neighbors because of the enormous cost of organizing such a pilgrimage measured in money, goods, time, and effort. I learned that Cirilo, a man in his early seventies and a renowned ritual specialist, had visited these important caves only twice before.

As a longtime resident in the village, I was invited to contribute to the effort and to document the ritual events. In this chapter, I will discuss the logic of the pilgrimage in the context of contemporary Nahua religion and worldview. In particular, I would like to offer an interpretation of how Nahua views of caves, pyramids, and sacred mountains offer insight into indigenous thought in the Mesoamerica culture area. I make the case that contemporary beliefs and prac-

tices of the Nahua and other Native American groups provide valuable information by which we can better understand enigmatic aspects of the rich archaeological and ethnohistorical record of Mesoamerica (Heyden 1981:28; see Stone 1995:11–12, for a discussion of cultural continuity in Mesoamerica).

Northern Veracruz, where Amatlán is located, forms part of a region along the Gulf Coast in East-Central Mexico known as the Huasteca. Named for the Maya-speaking Huastec who today live in the northern parts of the region, the Huasteca is composed of portions of six states: Veracruz, Puebla, Querétaro, Hidalgo, San Luis Potosí, and Tamaulipas. The Huasteca is renowned throughout Mexico as a wild and lawless frontier inhabited by cowboys, ranchers, and Indians. In addition to the Huastec, members of Pame, Otomí, Tepehua, Totonac, and Nahua ethnic groups also live in the Huasteca, typically in small, remote villages far from paved roads and urban amenities. According to the 1990 census, 431,805 Nahua (people who speak the Nahuatl language) aged five years or older live in the ninety-two municipalities that make up the Huasteca region (Sandstrom 1995:184). Most people make a living through slash-and-burn milpa horticulture mixed with small-scale animal husbandry and temporary wage labor on local ranches or in cities. With few reliable government services and little or no access to financial institutions, the indigenous peoples of the region are dependent on their crops and the weather in a way that is difficult for most Euro-Americans to understand.

Despite missionary efforts by the Catholic Church in the Huasteca beginning in the sixteenth century and the more recent incursion of U.S. Protestant missionaries, a large number of indigenous people in the Huasteca continue to follow the beliefs and practices of Native American religions (see Sandstrom 1994, 2001a). Ethnographers have begun to document and clarify some of these religions (Báez-Jorge and Gómez Martínez 1998; Gómez Martínez 1999, 2002; Ichon 1973; Leynes and Olguín 1993; Martínez de la Cruz 2000; Medellín Zenil 1982; Mönnich 1976; Reyes García and Christensen 1976; Signorini and Lupo 1989; Williams García 1963). Beliefs, rituals, and myths among different indigenous groups trace to common Mesoamerican roots and demonstrate remarkable correspondences to religious practices recorded by the sixteenth-century chroniclers, despite local variations brought about by internal development and nearly five hundred years of traumatic historical events. Participants in local rituals address a pantheon of spirits that traces directly to the Pre-Hispanic era or syncretizes Native American and sixteenth-century Spanish Catholic sacred personages. Ritual events involve ancient or syncretic practices such as construction of elaborate altars, blood sacrifice, sacred paper cutting, divination through casting corn kernels or crystal gazing, circumambulation of sacred sites, chanting, dancing, pilgrimages to distant sacred locations, and the dedication of offerings to springs, mountaintops, and caves.

The Nahua of northern Veracruz commonly use the Spanish loanword *cueva* for "cave." When pressed, they call a cave "*teotlacoyontli,*" meaning "divine hole" or "sacred hole." They call the sacred hills that dot the landscape "*santo tepemej,*" a mixed Spanish-Nahuatl phrase meaning "sacred hills." For the Nahua and other indigenous peoples of Mesoamerica, the landscape is a cognized environment (Rappaport 1979:5). Each bog, spring, plain, or hill is named and plays a role in the religious conceptions of the sacred landscape. The people identify very strongly with their local environment, which for them is an emotionally charged field where cosmic forces are played out. Almost every ritual entails visiting a natural site that has sacred connotations or, in some cases, one of the ancient Pre-Columbian ruins that are ubiquitous in the Huasteca. I asked a number of villagers to draw a map of the region for me, assuming that they would outline the area. Instead, they drew a series of dots corresponding to named features of the landscape. The dots were orientation points, significant to anyone familiar with the region.

It was difficult for me at first to grasp the degree to which the Nahua attribute meaning to the geographic features of their surroundings. For example, people divide their communities into units based on some physical feature of the setting. They often identify more strongly with the named section in which they live than with the village as a whole. In a practice called "*caltocayotl,*" the Nahua name their individual houses after an anomalous or striking geographic feature. Families may also practice toponymy, whereby they assume the house label as their surname. Thus a man named Juan Hernández Hernández, to distinguish himself from others with this common surname, would take on his house name and be known as Juan Tlamaya, or Juan Flat Place, to his neighbors (see Sandstrom 2000).

Much of the dynamic of Nahua religion derives from close observations of the processes of nature. Natural phenomena incorporated by the Nahua into a rich symbolic system include not only the human body and certain psychological states such as fear or anger, but also animal behavior, weather phenomena, geological features, topography, light, plant life, and changing states and sources of water, for example, fog, mist, dew, hail, clouds, springs, streams, rivers, lakes, or oceans. I suspect that the ideology of the great urban religions of Pre-Hispanic Mesoamerica as recorded by the chroniclers was also largely based on close observation of natural phenomena (see Bassie-Sweet 1996:xvi; McKeever Furst 1995). At one level of analysis, contemporary Nahua hold rituals to achieve a balance between humans and personified forces of nature such as rain, wind, plant fertility, the sun, and earth. The rituals are a type of exchange so that people are positioned to receive from the spirit realm the flow of benefits that are necessary for their lives. But the Nahua have a complex view of the cosmos and the place of humans in relation to these natural forces (see Sandstrom 1991, 1998).

Thus, at a deeper level of analysis, they use nature as a metaphor for thinking about the world, about each other, and about the events in which they are enmeshed. Their myths are filled with tales of animals whose experiences are the consequence of their nature.

The human life cycle of birth, growth, maturity, old age, and death is also mirrored in the life cycle of the corn plant. Even the human body is modeled on the corn plant, considered by the Nahua to be the source of human life (Sandstrom 1998). The tassel is the hair, the stalk, the body, and the roots are the feet. People told me on many occasions that the mature corn plant awaiting the harvest was an old woman holding the precious ear of corn wrapped in leaves, like a baby in swaddling clothes. Of course, people in all cultures to some extent turn their observations of nature into metaphors to describe and understand the events of their lives. We say that greedy people are pigs or that an aggressive person who demands money is a shark. But for people from Judeo-Christian or Islamic traditions, it is imagery from sacred scripture that occupies their religious conceptions in the same way that observations of nature do for the indigenous people of Mesoamerica.

For the Nahua, human beings represent an anomaly in the natural order. With their willful behavior and speech they can disrupt the smooth workings of the cosmos in a way that no other sentient creature can. Humans are modeled on nature, but at the same time they are apart from nature. Through their actions, people tend to disturb the natural flow of benefits that circulate throughout the universe. Their thoughts and behavior create obstacles to the normal operation of natural forces that supply humankind with life's necessities. The thoughts and actions of humans, although set apart from the workings of the natural world, sometimes have dire consequences for the natural processes that surround them. Extreme behavior of any sort, especially acts of disrespect, lack of generosity, or gossip and lying, can wreak havoc and cause disease, death, or misfortunes such as drought or earthquake.

From the Nahua perspective, nature is not always beneficent, and absolute good or evil does not characterize the major spirit entities. A benevolent manifestation of the earth mother, *tonantsij,* may kill if she feels neglected, while even the feared spirit of death, *miquilistli,* can be entreated to spare a patient's life. In the Nahua view, nothing happens without a cause. The disastrous drought of 1998, according to the shaman Cirilo, was caused by rich (i.e., nonindigenous) people failing to respect the earth. He accused them of soiling or polluting the earth through their activities and neglecting to enter into proper exchange with the earth spirit in compensation. Here we have an example of class consciousness entering into the interpretation of natural disaster, all encompassed within the context of Nahua religious belief. The purpose of the pilgrimage to the caves was to dedicate offerings directly to the water spirit and to her various alter egos

and helpers. Through the vehicle of these offerings, the people hoped to remove the obstacles placed there by the activities of the rich and to restore the benefits intrinsic to the exchange between humans and the forces of nature.

Preparations for the pilgrimage of 1998 took several months. Nearly half of the residents of Amatlán had converted to one Protestant sect or another by the late 1990s, and so Cirilo sent word to ritual specialists and interested participants in neighboring villages to advise them about the pilgrimage and to involve them in the planning. Altogether, fifty or sixty people, including Nahua and Otomí, agreed to contribute to the effort through gifts of money and labor and to ascend the sacred mountain to deliver the offerings to the caves.

For Cirilo the pilgrimage was the event of a lifetime, and he worked very hard to make sure that it was organized properly. He amassed food and offerings, contracted with guitarists and violinists to play the sacred music, collected money and made needed purchases at regional markets, notified keepers of the shrine at the base of the sacred mountain, and secured permission from regional governmental officials to hold the pilgrimage. He prepared himself and his family for a ritual observance that would disrupt their daily routine for nearly two weeks. Cirilo asked me to participate, and I gladly accepted. I was joined by my wife, Pamela, who has accompanied me to the field since the mid-1970s, and by our fifteen-year-old son, Michael. All of us eagerly took part in the exciting preparations. I also received permission to invite two Mexican anthropologists, two graduate students in anthropology (one a native Nahuatl speaker), and a video camera operator to attend the ritual and accompany us on the pilgrimage. Cirilo was clearly pleased to have the visitors along so that they could witness the beauty of this heartfelt appeal for rain.

The Huastecan Nahua understanding of how and why it rains is a combination of religious belief and scientific observation. Put another way, their understanding is a symbolic rendering of empirical fact. Amatlán is located in the foothills of the Sierra Madre Oriental range, which runs along Mexico's east coast. To the west of the village, the chain of mountain peaks, some reaching over six thousand feet, forms a continuous wall or escarpment. About seventy miles to the east of the village lies the Gulf of Mexico. The climate of the region between the mountains and the Gulf Coast is tropical and humid, supporting the northernmost reach of tropical forests in the Western Hemisphere. Steep and choppy foothills give way to coastal plain as one approaches or moves northward along the coast. Until very recently, the region was penetrated by few roads, and it is here in this remote area where some of the most traditional Native Americans in Mesoamerica live. The rainy season begins around mid-May, when moisture-laden air from the gulf is lofted upward, moving westward toward the mountains. The onset of the dry season begins in about mid-November and ends with the buildup of clouds and eventual rainfall the following May. Even in good

years the rain is unevenly distributed throughout the region. One area may be nearly flooded while milpas just thirty-five or forty miles away will be too dry to sustain crops. The problem faced by the people of the region is that there is either too little or too much rain in a given period at a given location. The Nahua rarely ask directly for rain during their rituals. Instead, they ask for balance and harmony so that the right amount of rain will fall on their fields.

The people have observed these weather patterns and have developed elaborate myths to explain them. They link the irregular rainfall patterns to the unstable personality of a water spirit who lives at the bottom of the Gulf of Mexico. The Nahua call this spirit *sahua,* a modification of the Spanish San Juan (Saint John), an obvious blending of a traditional Native American spirit with a biblical figure who is closely associated with water. This important spirit was born inside a squash, a clear analogy to birth inside a dark cave. *Sahua* was a disobedient and violent child who frequently injured his companions and age mates in fits of temper. As he grew to adulthood he became even more violent and threatening to the people around him. Finally, the people acted and threw a party for him. After *sahua* became drunk, the people jumped on him and pinned him down, took him to the Gulf Coast and chained him to the bottom of the sea, where he remains to this day. His fits of rage are reflected in the numerous storms that come from his watery domain to the east. In this myth, the Nahua recognize that rain originates from the Gulf and that rainwater is ultimately water from the sea.

The Nahua and other indigenous peoples of the region link rain to a sacred mountain that lies near the Nahua town of Ichcacuatitla in the *municipio* of Chicontepec, northern Veracruz (see Williams García 1957). The mountain is called Postectli or Postectitla, meaning "broken place" or "broken hill" in Nahuatl, and it is where participants in the pilgrimage directed their appeal for relief from drought. Postectli is a remarkable landmark that can be seen for many miles around. Although it looms on the northern horizon, about ten hours' walk from Amatlán, it is clearly visible from high places in the village. The mountain is the gigantic remnant of a volcanic core that juts up almost vertically some two thousand feet from the surrounding plain. The enormous rock stands alone and dwarfs everything else around it—a most impressive natural formation. From a distance, the rocky core gives the impression of having been broken off at the top, hence its name. This singular mountain is so high that its peak sometimes thrusts up into the clouds as they move from the gulf to the mountains. Villagers told me that when the distant peak was obscured by clouds, it was a sure sign that rain was on the way.

They also told me that near the summit of Postectli there are two caves, one of which is home to the thunder spirit and the other to an alter ego or aspect of *sahua* called *apanchanej. Apanchanej* means "water dweller" in Nahuatl, and in

Spanish, she is called *la sirena,* "the siren." The spirit is conceived as a female with long hair and a fish's tail in place of legs, much like a mermaid in Euro-American tradition. Among her many functions she protects women from abusive husbands and is mistress of the fish. Most important, from her cave home on Postectli she sends rain to the fields.

Apanchanej exists in many forms (Gómez Martínez 1999). Villagers described her sometimes as a girl and at other times as a woman, a man, or even a lizard. While her home is Postectli, she also lives wherever there is fresh water, and people leave offerings to her at springs, streams, pools, and lakes. She is served by the clouds (*mixtli,* singular in Nahuatl) who take the form of twelve dwarf-like old men called "*pilhuehuentsitsij.*" These servants of the water spirit carry water from the gulf to the cave at the top of Postectli so that *apanchanej* can distribute the precious liquid to the growing fields. The *pilhuehuentsitsij* are dressed in black clothing with rubber sleeves and are ranked in status. Each carries a walking stick that is struck as he travels along, causing lightning and thunder.

Nahua conceptions of weather and the origin of rain are phrased within a symbolic and religious framework, but they are reasonably accurate as modern scientific formulations. In fact, the clouds form as the moisture-laden air comes in off the Gulf of Mexico, carrying water to the fields. Rain is indeed imminent when the peak of Postectli is obscured by clouds. Water does exist in changing states and locales. One question that needs to be addressed, however, concerns the symbolic and empirical basis for the Nahua conviction that water emanates from caves.

It is highly likely that the symbolic link between water and caves is based on straightforward observation (see Vogt 1969:387, for a similar observation among the contemporary Maya). Many caves are moist, and water can be seen dripping from the ceiling or pooling in cavities deep in the interior. Some researchers maintain that Pre-Hispanic people believed the earth was floating on water and that caves were passageways to this primordial liquid (Bassie-Sweet 1996:21; see also Redfield 1941:118, and Redfield and Villa Rojas 1964:164–165, for related beliefs among contemporary Maya, but see also Villa Rojas 1945:134, whose informants were unable to draw the connection between caves and the sea). For the Maya, caves became sources for so-called virgin water—underground water that had never flowed on the surface of the earth. Archaeologists have found ancient Maya pots left in caves beneath dripping stalactites to collect the precious liquid for use in rituals (Thompson 1959:124ff.).

The Aztecs may have had a similar belief regarding cave water: "The ceremonially bathed [victims] or those who die the flowery death were bathed in sacred water. The old men of the *calpulli* would get the water; they got the water there at Uitzilopochco; there indeed was [the spring called] Uitzilatl, in a cave (Sahagún 1950–82, pt. 3, bk. 2:141; see Bonor 1989:102–104, and Stone 1995:34–44, for

a general account of Mesoamerican cave symbolism; see Alcorn 1984:80–86, for an account of modern Huastec beliefs about caves). However, I have not found corresponding beliefs among the Huastecan Nahua regarding caves and virgin water. The people of Amatlán sometimes conceive of the earth as a round disk, like a *comali* (a clay griddle for cooking tortillas) surrounded by water. The earth's surface is also conceived of as the back of a giant lizard or caiman floating in the water. But I have not documented a belief that caves are passageways to a primordial water source. Nor have I confirmed that because people observe water inside caves do they directly associate caves with the origin of rain. The Nahua of Amatlán, however, have elaborated a complex set of beliefs linking caves with water. They symbolically connect the two phenomena in the context of yet another widely held conception of the earth, namely, that it exists in the form of a human body.

In 1980, Alfredo López Austin, in *Cuerpo humano e ideología: Las concepciones de los antiguos nahuas* (published in English in 1988 as *The Human Body and Ideology: Concepts of the Ancient Nahua*), established the central symbolic importance of the human body in Pre-Hispanic thought. Likewise, a number of anthropologists, among them, Turner (1967:90) and Douglas (1978:101), argue that the body is the source for symbolic systems and classifications for most of the world's cultures. The religions of Mesoamerica present what may be an extreme case of the metaphoric use of the human body. Along with other ethnographers working in Mesoamerica, I have found that the human physical form continues to be a key symbol in the religious ideology of contemporary indigenous people (Sandstrom 1998; see also Armoni 1990; Galinier 1990; Signorini and Lupo 1989).

Once I became aware of the importance of the body as a metaphor for the Nahua, I began to see evidence of its use in many symbolic contexts. Shamans informed me that the earth itself (in Nahuatl, *tlali*) is alive and exists in human form. The soil is its flesh, rocks are its bones, and water is its blood. The mountains correspond to the earth's head, the plains beneath the mountains are its body, and the feet are in the underworld.[3]

In sum, for most Nahua, the earth is literally alive and requires recompense for any human activity that disturbs or injures its physical body. Here is an example of one of the challenges to understanding Mesoamerican religious traditions, for as noted earlier, the earth is simultaneously described as a circular area surrounded by water and as the back of a caiman. For the Nahua, the spirits exist in multiple, constantly shifting forms that make systematic classification and analysis by outsiders very difficult.

Pamela Effrein Sandstrom and I have described elsewhere how the human form represents the principle of animation in contemporary Nahua religious symbolism (Sandstrom and Sandstrom 1986:279). We argue in that work that

religion for the Nahua and other indigenous groups in Mesoamerica is basically pantheistic; that is, the cosmos itself is the deity, and all apparent diversity and separation among objects and beings is illusory (Sandstrom 1991:238–239; Sandstrom and Sandstrom 1986:275–277; see also Heyden 1981:6; Hunt 1977:55; Monaghan 2000:27–28). Pantheism differs from polytheism in the belief that a fundamental unity underlies apparent diversity, with all of the spirits personifying aspects or manifestations of a single divine principle. Pantheism also differs from monotheism in that God and the creation are indivisible. In Christianity, for example, God is separate from and responsible for the creation, and pantheism is thus considered to be heresy. The pantheistic nature of indigenous Mesoamerican religions helps explain why traditional deities seem to meld into one another, their attributes and changing guises in constant flux, always reinterpreted and reinvented. Witness the multiple manifestations of the earth described previously. The apparent fluidity of the Mesoamerican pantheon of spirits is problematic and confusing only to people socialized in a monotheistic or polytheistic tradition.

Viewing indigenous Mesoamerican religions as pantheistic also helps explain why spirit entities so often are simultaneously conceived as salutary and dangerous. Deities cannot easily be relegated to good or evil domains, because they are expressions of a sacred unity that encompasses all that exists. In pantheism the cosmos itself is alive and everything in it surges with divine energy. In this system of thought, distinctions between animate or inanimate, alive or dead, and good or evil are meaningless. The human form in Nahua religion symbolizes the sacred animating principle that lies at the heart of existence.

The human form truly permeates Nahua religious conceptions and explanations of natural phenomena. For them, the sky is a giant anthropomorphic mirror, with its feet lying in the east and its head in the west. Divination crystals are said by shamans to have a head, a body, and feet. As already noted, the Nahua conceive of the corn plant as having human form and describe the growth of the corn plant as reproducing the stages of human development. Thus, when young, the corn plant is a brother-sister pair, each with hair the color of corn silk, and called, respectively, Seven-Flower and Five-Flower. When it is ready to harvest, the mature corn plant is conceived of as an old woman holding the swaddled baby—the ripened ear of corn—in her arms.

Examples of how the Nahua use the human body as a metaphor for thinking and talking about the world could be extended indefinitely. Probably the clearest example of the importance of the human form for the Nahua can be seen in their use of remarkable, anthropomorphic cut-paper figures to represent spirit entities in their rituals. The shamanic art of paper cutting traces to the Pre-Hispanic era and survives only in a small region of East-Central Mexico (see Sandstrom and Sandstrom 1986). Given the abstract nature of the religion and the reluctance of

most ritual specialists to discuss esoteric aspects of their work, the paper figures provide valuable, tangible clues about the content of Nahua beliefs and ritual practices. Shamans use scissors to cut the shapes from handmade or industrially manufactured paper. For a simple cure, the ritual specialist may cut only a few dozen images. For the pilgrimage to Postectli, the participating shamans probably produced about sixteen thousand cut-paper images. Depending on the ritual occasion, images may be created to represent literally anything in the cosmos, including disease-causing spirits, seeds, water spirits, aspects of the earth, and even inanimate objects such as walking sticks, hills, clouds, or the dew. The images may vary in form, size, and color; however, at the center of each cutting is a small human form, typically with the hands held alongside the head. Cut from the body or from the silhouette of a figure are iconographic representations that allow people to identify the spirit. For example, wavy lines cut in the body identify *mixtli,* the cloud spirit, while rib holes cut from the body identify disease-causing spirits of the dead.

Figures 3.1–3.18 (see the following section) are a sample of some of the images cut by Nahua ritual specialists. They include a number of water and hill spirits as well as a disease-causing wind spirit and the spirit of the sun. Note the human form at the center of each image along with the identifying iconographic features. It is this human form that symbolizes the animating principle of a particular entity and links the spirit to the sacred cosmos of which it is an indissoluble part. The human form also symbolizes the unity that lies at the heart of apparent diversity and communicates the living nature of the universe. Ritual specialists often cut a great number of different paper images to represent spirit entities relevant to the particular ritual occasion at hand. But in the end, the separate spirits return to the unity from which they are temporarily abstracted.

On the one hand, contemporary Nahua deities are thought of as sentient beings with individual personalities and ever-changing characters, filled with the contradictions and uncertainties of human experiences of the world. They can also be interpreted more like impersonal energy fields instead of discrete personalities. They distill Nahua experience with the natural and social environments and thus serve as analytical devices for understanding and managing a complex, multifaceted universe. The Nahua extend experiences with the body to encompass key aspects of an unpredictable and insecure world. They are explicit in stating that human activities such as planting a field or burning brush annoy the earth, in much the same way a human being would be irritated by being poked or burned. Cirilo, the lead ritual specialist in the pilgrimage to the sacred caves, was equally explicit in stating that the earth enjoys food, Presidente brandy, and tobacco, just as humans do. Through ritual offerings, he and his fellow shamans attempt to redress the imbalances that accumulate in the human and spirit interchange brought about by selfish and antisocial conduct.

Not surprisingly, one of the greatest uncertainties for the Nahua is balancing their need for water. The Nahua know that water in the form of rain fertilizes the fields and makes the crops grow. As mentioned previously, they also know that the water ultimately comes from the sea—the Gulf of Mexico—and it is carried inland by the *pilhuehuentsitsij,* dwarfish old men dressed in black, who are clearly metaphors for the clouds. The water is distributed by *apanchanej,* the water spirit, from her cave at the top of Postectli. The cave, then, is a source of fertility, and it is from caves that life-giving water makes its way to the growing crops that support human populations.

The close connection between the earth and the fertilizing rain is ancient in Mesoamerican thought. The name of the Aztec rain deity, Tlaloc, for example, contains the root for earth (*tlali*). But the key to understanding the contemporary Nahua association of caves with water lies in their conception that the earth exists in human form. They say that the mountains are like the earth's head and the water is the earth's blood. I conclude that caves as a metaphor for fertility are like vaginas or wombs—body parts that are productive of human life and all that makes human life possible (see Brady 1988; Heyden 1991; also Grove 1970 for a pioneering study linking caves to eroticism and procreation in Mesoamerica). In menstruation, the vagina-womb yields blood, the carrier of *chicahualistli,* or the supreme energy source for life, just as caves produce water, the earth's blood and the source of life for the corn. The vagina-womb also gives forth water immediately before the emergence of a baby. No villager ever articulated the parallels between vagina or womb and cave, and I am uncertain whether anyone makes the connection consciously. However, examination of ritual practice and themes in myths makes a convincing case that such a symbolic connection is an important feature of Nahua religious belief. Nahua use of the human body as a key symbol in their religious conceptions is an ancient idea, widespread throughout Pre-Hispanic Mesoamerica, and the contemporary concept should help ethnohistorians and archaeologists interpret their research findings.

One of the most important deities or spirit entities for contemporary Nahua is *tonantsij,* "our sacred mother," who is known to outsiders as the Virgin of Guadalupe. This female deity has roots in the Pre-Hispanic era and spans the divide between Pre-Christian and postconquest Catholic Mexico. Guadalupe/*tonantsij* enjoys an enormous popularity in contemporary Mexico, where she has attained the status of patron saint of the country. For the Nahua of Amatlán, *tonantsij* is closely associated with the earth and both human and crop fertility in her guise as a manifestation or aspect of the water spirit (Sandstrom 1982). The Nahua often tell how she dwells in the cave on Postectli from which vantage she oversees crop growth and the human production of children. In the cave with her are her own children, the seed spirits who control the fertility of specific crops. In the mythic past, *tonantsij* allowed these seed children to leave the cave

and live in villages like Amatlán so that they could better support the human population. There they remain to this day. Here again we have caves associated with female spirits responsible for fertility.

Nahua shamans keep on their altars a special sealed box handmade from *teocuahuitl,* or "sacred wood," which houses a permanent collection of cut-paper images of the seed spirits. Each image is dressed in a tiny cloth outfit that corresponds to traditional Nahua male or female costume. Male images are dressed in white shirt and white pants, and female images are dressed in long skirts with embroidered blouses (like adult women) or one-piece dresses (like girls). The female images are provided with necklaces, earrings, hair combs, and other tiny adornments, while male figures may have hats. In some boxes, the shaman has provided miniature furniture and other accouterments to make the spirits feel at home. From fifty to one hundred images may be preserved in the wooden box, which is opened only for major crop-fertility rituals. On such occasions, the paper images are removed and undressed and their clothing carefully washed, dried, and then replaced in an unhurried, daylong ceremony.

Shamans told me that for the seeds to continue to provide for the people, it is important that they be treated hospitably and kept in comfortable surroundings. People must refrain from fighting or causing trouble in the village, or the strife and disharmony will cause the seeds to return to their cave home, with the result that people will starve. For Pre-Hispanic peoples as well, humans were entrusted with corn only if they behaved properly (Bassie-Sweet 1996:12). The special wooden box on the ritual specialist's altar represents the cave home of the seeds.[4]

Tonantsij herself is the subject of a winter solstice ritual called *tlacatililis* ("birth" in Nahuatl), held between December 21 and 24. During this time the participating shamans remove the image of the Virgin of Guadalupe from her shrine, and a procession of unmarried girls, over the four-day period, carries the statue from house to house and performs a brief ritual at each stop. Each household erects a small altar to receive *tonantsij* in hopes that she will bless the family and crops with fertility. *Tonantsij* is carried throughout the village in a wooden box representing her cave home, which is sometimes painted blue to associate it with water.

There are many additional examples of how the Nahua connect fertility with caves, but I will limit the discussion to just a few. I have recorded portions of an elaborate myth cycle chronicling the adventures of Seven-Flower, or *chicome xochitl,* the most important manifestation of the corn spirit (Sandstrom and Gómez Martínez, Forthcoming). Corn is such a crucial part of the diet that this spirit has come to stand in for all of the crops grown in the fields. As mentioned earlier, Seven-Flower is conceived of as a small blond boy who, along with his sister Five-Flower, or *macuili xochitl,* is responsible for bringing corn to the

people. Seven-Flower's mother is *tonantsij,* who, just before he was born, lived with her mother. *Tonantsij*'s mother was a kind of witch, or *tsitsimitl,* and was extremely jealous of her beautiful daughter. She was so afraid that the daughter would marry and abandon her that she kept the girl in a large clay vessel called a *chachapali* and let her out only when the girl went to the spring with her carrying pot to supply the house with water. The clay vessel clearly represents the cave-vagina-womb enclosure where fertility, personified by *tonantsij,* is safeguarded from potential suitors.

In one version of the myth *tonantsij* finds a crystal in the spring and puts it in her mouth so that her mother will not see it. She accidentally swallows the crystal and becomes pregnant. In another version, she meets a handsome young man on the trail back from the spring and, as they are parting, he promises to see her again. When she turns to look at him, she sees a beautiful deer bounding away. That evening, the mother hears talking and laughing from inside the clay vessel. She peeks in and sees that a flea has gotten in with her daughter and that the two are engaged in animated conversation. The flea is really the young man, who in transformed guise, is the deer spirit, *masatl.* In the end, the daughter becomes pregnant and eventually gives birth to the corn twins. Here again we have cave symbolism closely associated with fertility.

Seven-Flower's grandmother so resents the male child that after several episodes in which she tries various ways to kill him, he escapes and goes to hide out in a cave in the interior of Postectli. Here we have an example of bad behavior driving the seed spirit back to the cave dwelling. At the time of these events, the mountain was whole and served as a link between the earthly and the celestial realms. During the corn spirit's absence, the people begin to starve and eventually are driven in desperation to search for him. The search proves fruitless until villagers notice red ants carrying kernels of corn from a cave on the mountainside. After several failed attempts to break open the mountain and release Seven-Flower, the people persuade *sahua,* the water spirit who lives in the Gulf of Mexico (and an alter ego of *apanchanej,* who, as mentioned previously, was himself born in a cavelike squash) to use his force against the mighty rock. He succeeds in smashing the mountain in a fiery cataclysm, thus freeing the corn spirit from his cave enclosure. Again we witness water acting to yield the life-giving crop and save humanity from starvation, and we also see that corn itself originates in a cave. The myth provides an explanation for the broken appearance of Postectli today and records the primordial events that separated humans from the celestial realm.

Like most sacred symbols, caves have multiple meanings or perhaps represent multiple aspects of a complex meaning system. In addition to their association with the vagina or womb and fertility, caves for the Nahua may represent ambiguous places or transitional passages between states of being. In one episode

of the Seven-Flower myth cycle, the corn spirit's grandmother tries to kill him by locking him inside a sweat bath. The sweat bath, called *temascali* in Nahuatl, meaning "stone house," is frequently employed by Pre-Hispanic peoples as a metaphor for a cave (Heyden 1981:17). She tricks him into entering and then piles on firewood in order to roast him alive. After a lengthy period, she opens the door and the boy emerges unscathed. Seven-Flower then tricks his grandmother into the sweat bath and she is reduced to ashes. He asks the toad to carry the ashes to the sea in a closed clay vessel reminiscent of the cave where the corn spirit was conceived. The toad hears rustling noises in the vessel and, contrary to instructions, opens it to see what is inside. This act releases all of the stinging insects in the world. Interestingly, when the toad throws the ashes into the sea, they turn into the caiman, whose back becomes the earth on which people live. In this narration, the sweat–bath cave is a place of trial and impending death.

The Nahua tell another story about a monkey who kidnaps a woman and keeps her in a cave to prevent her from escaping and to hide her from her relatives. The monkey is very strong and places a huge rock in front of the entrance. Eventually the woman gives birth to a hairy child who in the end kills his animal father and releases his mother from captivity. Here we have a cave as a prison, with mother and child caught between the human and the animal realms.

The counterparts to caves in Nahua thought are the mountains. As mentioned, Amatlán is located in the foothills of the Sierra Madre Oriental and the terrain is punctuated by steep hills. Each of these hills and peaks has a name and a role in local mythology. During field research, when I constructed a map showing the locations of sacred hills named by shamans, I was surprised at the number they identified. I was also surprised to learn that the sacred geography extended many miles in all directions from the village, including even the famous mountains Popocatepetl and Iztaccihuatl as far away as Mexico City. Most traditional Nahua consider hills to be spirit presences standing guard over the inhabitants of villages. Hills are also considered to be the source of desirable things such as wealth and rain. As we might expect among a people with a pantheistic religion and worldview, the landscape is literally alive and plays a significant role in Nahua thought. Hills are looming presences, and their sheer mass ensures that they possess a large share of the cosmic divinity. They are the face and head of the earth and a commanding presence always standing watch over the "earthly sprouts," as shamans refer to human beings in their chants (Bassie-Sweet 1996:11; Sandstrom 1998).

What seems particularly to intrigue the Nahua are anomalies of geography, for example, hills associated with lakes or caves. The sacred pilgrimage site of La Laguna in the nearby state of Puebla is a small pond located near the summit of a mountain. Postectli is a bizarre geological formation that features cave entrances near its summit. Other sacred sites include deep holes on the side or

top of mountains, or springs flowing from cave entrances. These sites are ranked in importance by shamans, and each is visited during specific ritual occasions.

It is difficult to exaggerate the importance of hills in the religious ideology of the Nahua. During rituals to cure a patient with a particularly serious affliction, the ritual specialist, the patient, and the patient's family will visit the peak of a hill to dedicate offerings to the hill spirit. The offering is designed to enlist the help of the hill spirit in watching over the patient and protecting him or her from harm. I have witnessed ritual offerings in Amatlán that were held to protect elected village authorities against disease or harm during their term of office. The ritual specialist symbolically cleansed each man, dedicated offerings to house guardian spirits, and led the men to the peak of a nearby hill. There the specialist laid out a complex altar on the ground to feed the spirit of the hill in hopes that it would watch over the men while they carried out their official duties on behalf of the village. Nahua shamans also cut a special paper image called *tlamocuitlahuijquetl* ("guardian-witness") that people hang in their houses to ward off misfortune. The spirit entity reports potential danger to the hill spirits surrounding the village so that they can intercede and act to protect the inhabitants of the house. The image is cut with two oblong openings on each side of its body. I was told by a shaman that these openings represent empty pockets, which the spirit fills with "good things" to bring to household members when it returns from its visits to the hills.

Echoes of the Nahua past can be recognized in the stories they tell about the origin of the sacred hills. Shamans told me that *montesuma,* an earth spirit, was carrying the sacred Popocatepetl to its place outside of Mexico City when he dropped parts of it along the way. These pieces of the primordial divine mountain became the local sacred hills. It is interesting that this mountain should hold such an important place in the myths of the Nahua, who live so far from the central highlands. Popocatepetl was sacred to the Aztecs and, as far as I know, has never been visited by anyone from Amatlán. The spirit *montesuma* has a name similar to that of two Aztec emperors, but although I inquired in Amatlán, no one seemed aware of the connection (see Parsons 1970:221–222).

The close link between hills and the caves may be seen in the way contemporary Nahua view the many Pre-Hispanic pyramid ruins that dot their region. Stone ruins are called *cubes* in the local Spanish dialect and *tetsacuali* (singular) in Nahuatl (see Figure 3.7, discussed in the next section, in which the ruins are anthropomorphized as a spirit cut from paper). Nahua shamans told me that *montesuma* built the great pyramids and the national cathedral in Mexico City in a single night in the period that preceded the present era. En route to Mexico City, the earth spirit stopped along the way to build the local structures and the now partially ruined colonial church in the regional center of Ixhuatlán de Madero. Shamans were in agreement that the ruins covered cave entrances

leading to Mictlan, the "place of the dead" (Brady 1997:603; Brady and Veni 1992:163; Stone 1997:202). I have witnessed many curing rituals in which a cleansing was performed at the site of pyramid ruins to lure wandering spirits of the dead back into the Underworld. Many people avoided going near the ruins because of lurking spirits of the dead, while some claimed that the ruins were infested with poisonous snakes, and they avoided them for that reason.

We can see that pyramids, like sacred mountains, are believed to have been created by a manifestation of the earth spirit and are associated with caves in Nahua thought. However, the caves located beneath pyramids represent a transition zone between the living and the dead rather than the vagina-womb they seem to be in relation to caves associated with the sacred hills. Some villagers do say that the ancient pyramids are like sacred hills; others simply say that they are associated with the earth (see Vogt 1964:194).

Given the importance of mountains and caves in Nahua religion and faced with a devastating drought, it is understandable that the villagers would want to organize a pilgrimage to the most sacred mountain and to the cave home of the water spirit, the source of human and crop fertility. People heeded Cirilo's call and began arriving in Amatlán several days before the actual trek to Postectli. They each brought offerings of food, money, and a willingness to labor on behalf of the greater cause of bringing rain to the fields. Cirilo's house and his small attached shrine became the focus of activity that continued day and night until the morning of departure. In one room, men sat in a circle making the thousands of palm and flower decorations required for such an elaborate offering. Inside the shrine, enduring the sweltering heat of the drought, sat a dozen shamans cutting the thousands of paper figures that such an offering requires. As preparations got under way, a violinist and a guitarist joined the working shamans to play the repetitive and rhythmic *xochisonis* (a Nahuatl-Spanish neologism meaning "flower sounds") that accompany all important Nahua rituals. The shrine was filled with aromatic copal incense smoke and lighted candles that also marked the sacred occasion. Periodically, Cirilo's wife and daughter-in-law prepared and served food for the growing crowd of helpers. Throughout this preparatory period, Cirilo was busy greeting newly arrived guests, taking part in cutting paper images, clearing the altar in his shrine, and removing the seed spirits from his sacred wooden box-cave so that women could wash the doll-sized cloth outfits. He also purchased needed items and gathered the more than three dozen chickens and turkeys that would become bloody sacrifices to the powers that control rain.

Nahua rituals are colorful and exciting events that may best be described as organized anarchy. On the one hand, many activities are going on simultaneously and to the outside observer chaos appears to reign, and yet everyone seems to know what to do and is aware of what is coming up next. The shamans exert

very little apparent authority and, although they are frequently at the center of activity, participants rarely consult them. A number of ritual episodes precede the actual pilgrimage. Shamans and helpers lay hundreds of paper images on the freshly cleaned altar tables and, after extensive ritual preparation, sprinkle them with the blood of sacrificed chickens and turkeys. They then decorate the altar with green leaves, palm and flower adornments, food and drink, lighted candles, and many additional items. They lay out a smaller array beneath the altar table that includes bloody paper figures, candles, food and drink, all set before a pair of elaborately dressed, seated paper images of the male and female aspects of the earth spirit. Helpers prepare an altar outside of the shrine dedicated to the Sun Spirit, Tonatij. This outdoor altar is connected to the altar inside the shrine by a marigold-covered vine, almost like a symbolic telegraph wire.

Shamans prepare paper images of disease-causing spirits of the dead for a ritual that will clear the area of malevolent spirits that might be attracted to the offerings. This ritual is held in the middle of the night, when such spirits are likely to be lurking about. The shamans and helpers walk in procession to a spring located in a hollow beneath a giant ceiba tree, where they dedicate offerings to the water spirit, *apanchanej,* and her helpers, the clouds. Upon returning, the procession circumambulates the outdoor shrine to the sun and dedicates offerings to this important member of the Nahua pantheon. At each offering site, people array lighted candles, palm and flower adornments, offerings of food, drink, cornmeal, tobacco, alcohol, and paper figures, and the shamans kneel and chant as the musicians fill the air with their flower sounds.

About a week after the people first began to assemble at Cirilo's shrine to take part in numerous ritual events, the participants prepared for the actual pilgrimage to Postectli and the ascent to the sacred cave of the water spirit. The trek began at dawn and included about fifty people. Participants were loaded down with birds to be sacrificed, adornments, and the ritual items that would be used in the offerings. Leading the procession was a shaman holding the sacred walking stick (*cuatopili* in Nahuatl, *bastón* in Spanish) representing the thunder spirits who carry water from the Gulf of Mexico to the cave on the mountain. Last in the long procession came a helper carrying a smaller walking stick. The pilgrimage took nearly twelve hours over the rough terrain of the Sierra Madre foothills, with temperatures reaching 130 degrees Fahrenheit in the sun. Several people collapsed from heat exhaustion during the trek. Each time this happened everyone rested until their fellow pilgrim was ready to resume walking. All along the trail, the shamans stopped at different springs and wells and left a small offering. As we passed through remote villages, people left their houses and approached us with additional offerings to take to the sacred mountain. Some of them had tears streaming down their faces as they handed us the items they wished to donate.

After about seven hours on the trail, we could see Postectli looming dark on the horizon, a gigantic form jutting up from the surrounding plains and shimmering like an optical illusion in the tremendous heat. We walked for almost five more hours until we came to the Nahua town of Ichcacuatitla, which lay in the shadow of the imposing monolith. That night the shamans dedicated another offering inside a rustic shrine maintained by the townspeople to accommodate pilgrimages such as ours. At dawn the next day, without having slept for several days, we began the ascent to the caves.

At the base of Postectli, the shamans gathered everyone and told them they were about to enter sacred space. They were cautioned not to relieve themselves within the precincts of the mountain. After scattering to find cover from prying eyes, the group reassembled and began the trek up Postectli. The trail wound back and forth across the face of the mountain and in many places required a vertical climb. People moved slowly but deliberately, bending under the weight of their load as they picked their way up the rough trail. Along the difficult trail—in fact, all the way to the peak—musicians somehow managed to play the flower songs as they struggled up the steep side of the mountain. It was truly a magnificent feat and drew praise from all of the participants. About a third of the way to the summit, everyone stopped at a wide ledge and put down their load. Two of the shamans laid out an array of images of malevolent disease-causing spirits and dedicated an offering to them to remove harmful spirits that might be attracted to offerings intended for the mountain and the forces controlling rain. Other shamans constructed an altar table and on it they laid out hundreds of paper images, sprinkling each with the blood of birds they sacrificed on the spot. Women danced before the altar with baskets that contained additional offering items balanced on their heads. Several shamans knelt before the altar and chanted simultaneously, although not in unison. Individual participants, many openly weeping, then stood one by one before the altar and beseeched the spirits to acknowledge their plight and provide rain for the fields. While these events were going on, two shamans carrying a white chicken climbed up the rock face behind the altar. They carefully imprisoned the chicken in a small fissure in the rock by placing sticks over the opening to prevent its escape. The chicken, secured in its own little cave in the cliff, was an offering to the clouds (see Motolinía 1941:50, for a description of a similar ritual sacrifice to Tlaloc using human victims).

Following the construction and dedication of the altar, we resumed the climb up the increasingly steep and dangerous trail. At two points, seventy-five-foot ropes affixed to outcroppings were needed so that we could pull ourselves up the treacherous slopes. Almost delirious with heat and exhaustion, the procession stopped at another small flat area overlooking the plains lying nearly fifteen hundred feet below. Again the shamans constructed an altar, laid out paper fig-

ures, sacrificed fowl, and sprinkled their blood on the images. They chanted in a heartfelt manner, imploring the water spirit to provide the blessing of rain. At last, we began the climb to the summit, led by the shamans, who carried the sacred walking sticks, and by the musicians, who continued to play the ritual music. Several people stayed behind, too exhausted and overcome with heat to continue.

The procession was soon strung out along extremely narrow and precarious trails beneath the cover of scrub forest. After about a twenty-minute climb people stopped and stood in a place on the trail, unable to move forward or backward nor to pass one another. Up ahead the shamans knelt before a small cave entrance. The cave was not very impressive—really just a cleft in the rock and not big enough for a man to enter. They laid out an array of paper figures and offerings and chanted before the opening for nearly half an hour. The cave is the home of *tlatomoni,* the spirit of thunder and assistant to the water spirit (see its depiction in paper in Figure 3.9, discussed in the next section). Unfortunately, I was unable to get as close as I would have liked to witness the details of the offering. The offerings appeared to be simple and the chanting relatively brief as the people in the procession waited patiently on the dangerous, uncomfortable trail.

We continued to climb for several minutes more and turned onto a side trail that led horizontally to the cave of *apanchanej.* The cave itself was very difficult to access, and most people stood once more in place on the trail and observed two shamans approach the entrance. In appearance, it was a vertical slit about the height of a man, slightly wider at the bottom, with rounded edges. Its resemblance to a vagina was truly remarkable. In front of the cave was a kind of spillway that led close to the edge of the cliff. The trail was actually above the cave, and the shamans had to descend several feet to gain entrance. The spillway was filled with a large deposit of remnants of previous offerings, including pottery, animal bones, and fragments of cut paper. Clearly, this was a spot visited by many processions each year and had been a sacred place for hundreds of years, if not more. No water flowed from the cave's entrance during the month of June, and a grown man could not quite fit inside the opening. The shamans managed to set up a display of paper images and other offerings handed down to them by the onlookers. They leaned the walking sticks on either side of the entrance, and one ritual specialist lay on his back and wedged his body into the cave as far as could. His right hand reached several feet into the cave entrance and he left offerings there for the water spirit. After he dedicated the offerings, a female shaman announced loudly to the waiting people, "Now let us go to our real father [*mero tata*]." The shamans at the cave site picked up the walking sticks, crawled back to the trail, and led the procession on another twenty-minute ascent to the very peak of the sacred mountain.

The summit of Postectli is a rounded rocky outcropping perhaps one hundred feet across. The rocks were so hot from the sun that even to brush against one was to risk a serious burn. At the highest point, the Catholic Church had erected a cement cross with a cement bench placed before it, a not very subtle symbol of indigenous religion's conquest by Christianity. It is a marvel how anyone could have carried the bags of cement and water to the summit to construct these items. Far from acknowledging Christianity's supremacy over Native American religion, however, the Nahua and Otomí of this region have largely incorporated the European religion into their own. For the Nahua the cross stands for the Sun Spirit, Tonatij, who, in turn, is associated with Jesus Christ. The sun is an otiose creator deity that literally animates the cosmos with its light and heat (Sandstrom 1991:247–248; see also Figure 3.18, discussed in the next section). Thus, the cross at the summit of Postectli is perfectly appropriate from the perspective of the participants, who want to include the sun in any major offering. Around the base of the cross are remnants of hundreds of candles, the residue of a large number of past offerings. As if to provide a lesson about the precariousness of human existence, the melted beeswax and paraffin create an extremely slippery area near the edge of the cliff (see Burkhart 1989).

If *apanchanej*'s cave is a metaphorical vagina, then the female shaman's comment about the peak's being the real father indicates that the shamans, at least, see the mountain as a metaphorical phallus. In fact, from a distance the mountain unmistakably resembles a giant phallus. Because the water-earth complex is clearly female and centered around cave symbolism, I was eager to see which of the spirits in the Nahua pantheon would receive the offerings we were about to make and would, thereby, from the perspective of the participants, embody the male principle. I had my suspicions about the spirit's identity but had never been able to confirm them.

As the musicians played the sacred music, shamans began to construct three altars. The first was to one side of the summit close by the nearly vertical drop to the plains far below. They set up the second altar on the cement bench by the cross. For the Nahua, the cross itself has sacred attributes and is therefore worthy of offerings, although, as mentioned, it is also closely associated with the sun. The third altar was constructed of a wooden hoop perhaps three feet in diameter, with its interior space woven with vines. The hoop was fastened at its center to the end of an eight-foot-high upright pole, like a tabletop. Shamans placed offerings on the circular platform as helpers unfurled long colored-paper streamers and fastened them to the hoop. The paper strips led away from the hoop, like spokes from a wheel, and nearly covered the top of the mountain. Here was incontrovertible proof of the identity of the male principle in Nahua religious thought. The structure was an image of the sun with colorful light rays emanating from the circular altar at the center (see Gómez Martínez 2002:113).

This was yet another clear link to the Pre-Hispanic era, as the shamans chanted and dedicated offerings to the solar disk, the outward manifestation of the sun and source of animating power for the living cosmos.

With the dedication of the offerings to the sun, the pilgrimage came to an end. The exhausted but satisfied participants quietly began the long and hazardous trek back down the mountain. The feeling of solidarity and anticipation that was so strong among procession members as we ascended Postectli began to dissipate as we retreated into our own thoughts and selves for the trip down. Below awaited our normal lives and daily routines, far from the mountaintop abode of the thunder and water spirits and the celestial realm of the sun.

When we neared the bottom, a loud thunderclap sounded out of the hazy, smoke-filled sky. This noise set the people talking about how the offerings and the pilgrimage had been a success; the thunder simply affirmed their feeling that they had really accomplished something with their effort and sacrifice. Within two weeks the rains came and soaked the fields. We later learned that the harvest that following season was the best they had seen in years. Cirilo, the shaman who organized the pilgrimage, seemed satisfied that we had done everything correctly and that *apanchanej*'s anger at people's disrespectful behavior was appeased for the time being.

Evidence I have presented from the contemporary Nahua of the southern Huasteca region leads to the conclusion that caves, mountains, and pyramids are part of a symbolic complex that has its roots in Pre-Hispanic antiquity. In the pantheistic religious philosophy of the Nahua, the earth is a living being and the mountains and caves appear to be metaphorical sexual organs closely linked to crop and human fertility. Stone pyramid ruins, constructed by the earth spirit *montesuma,* who also created the sacred mountains, appear to be symbolic of other types of mountains or perhaps of the earth or even the underworld. They too are associated with caves, but more as transition passages between the realms of the living and the dead. It is conceivable that mountains and pyramids are mirror images of each other for the Nahua.

Natural mountains like Postectli are linked to caves that are the sources of water and generalized fertility, as well as associated with the masculine principle of the sun. Pyramids, on the other hand, are linked to caves that are the sources of disease-causing souls of the dead (the *ejecatl,* or malevolent wind spirits) or are passageways to Mictlan, the dark and gloomy place of the dead. In fact, for the ancients pyramids were sometimes burial places of the elites (Bassie-Sweet 1996:117) and caves were often used as tombs (Heyden 1975:137; 1981:20). From the mountain caves come rain and life, while from the pyramid caves emanate malevolent winds and death. Postectli is the home of *tonantsij* and the seed spirits, while pyramids house poisonous snakes (a considerable threat in this tropical region).

Cave symbolism is very well developed among the contemporary Huastecan Nahua. I have shown that cave analogs exist in many forms, including clay vessels, special boxes, the *temascali,* and the inside of a squash. Heyden lists clay jars, boxes, and chambers in pyramids, among many other places, as "artificial caves" for Pre-Hispanic peoples (1981:22). Caves are interior places where supernatural events occur or where dramas are enacted that determine the fate of the human race. They are the homes of important spirit entities and the source of water. They are "stone warehouses" that are the sources of crops and valuable items (see Grigsby 1986). Because of their importance in Nahua religious ideology, caves are also the object of pilgrimages, as we have seen. They are central features in contemporary Nahua myths and ritual symbolism. At the same time, caves are also the source of destructive forces and disease and so can be dangerous places that are fearfully avoided. They are neither wholly good nor wholly bad. In the words of Eva Hunt (1977:108), "caves are imagined simultaneously as womb-vaginas and as mouths that swallow dead souls, entrances to the underworld from which man once emerged and to which he returns after a short journey on the earth's surface." In sum, caves are aspects of a living universe that contain all of the positive and negative values and contradictions of the world at large. In the religious ideology of the contemporary Huastecan Nahua, just as in that of their Pre-Hispanic forebears, caves produce the same ambivalent feelings that people exhibit toward their spirits, their environment, and other human beings.

Illustrations

Figures 3.1–3.18 are samples of the paper images cut by Nahua shamans for use in rituals. The original specimen of Figure 3.1 measures 17.5 centimeters × 6 centimeters (7 inches × 2.25 inches) and the others are of comparable size. Figures 3.1–3.2, 3.4–3.6, 3.9–3.11, and 3.13–3.14 were cut by Encarnación Téllez Hernández (Cirilo) from Amatlán. Figure 3.3 was cut by shaman Silveria Hernández Hernández, also of Amatlán. Figures 3.7 and 3.15–3.17 were cut by shaman Isidro Martínez of Cocatitla-Huacango, Chicontepec, Veracruz. Figures 3.5, 3.8, 3.12, and 3.18 were cut by anonymous Nahua shamans in and around the town of Ichcacuatitla, Chicontepec, Veracruz. All of the images by Isidro Martínez and by the anonymous shamans were collected by anthropologist Arturo Gómez Martínez. Figure 3.7 is made from handmade dark brown bark paper, and Figures 3.15–3.17 are cut from handmade white bark paper. The remaining figures are cut from manufactured paper purchased in the market. Color of the manufactured paper is gray white unless otherwise noted in the description.

Figure 3.1 represents *apanchanej,* the female water spirit. Cirilo said as he cut

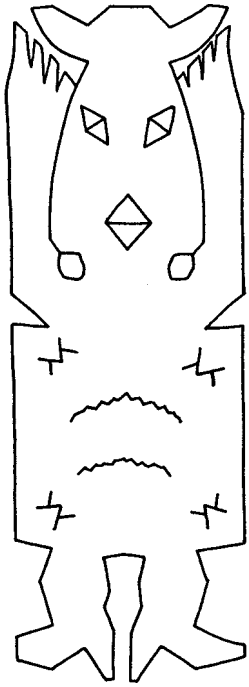


Figure 3.1. Apanchanej, water (female aspect)

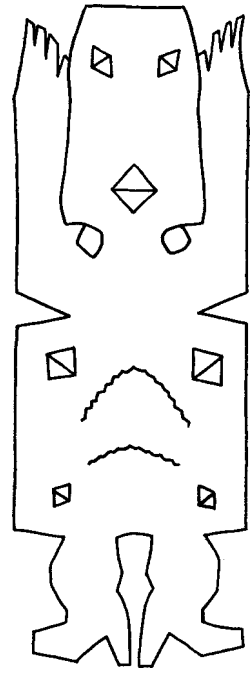


Figure 3.2. Apanchanej, water (male aspect)

the image, "She lives in Postectli, and also in the sea." She is portrayed with a three-pronged headdress, pockets in each corner of her costume, and two wavy arches in her skirt representing the clouds.

Figure 3.2 is the consort of *apanchanej,* or her male aspect. Cirilo said as he was cutting the image, "The four pockets are for keeping money." Wavy arches are clouds.

Figure 3.3 is another image of *apanchanej* portrayed with the classic fish-tail and long hair. The shaman said, "*Apanchanej* is generally beneficial and she guards people when they bathe. She commands from the sea and has a tail like a fish." Note the V-cut in the chest representing the heart or life force of the image.

Figure 3.4 represents the marijuana plant. The shaman said, "This spirit creates wind when it is annoyed." Marijuana is called "*santa rosa*" in Spanish, meaning "sacred rose," and the Nahua consider this spirit to be an aspect of *apanchanej.* The square cut in the center of the body is the flower of the plant, and smaller cuts are leaves. It is unclear whether the headdress represents plants or the open jaws of the earth.

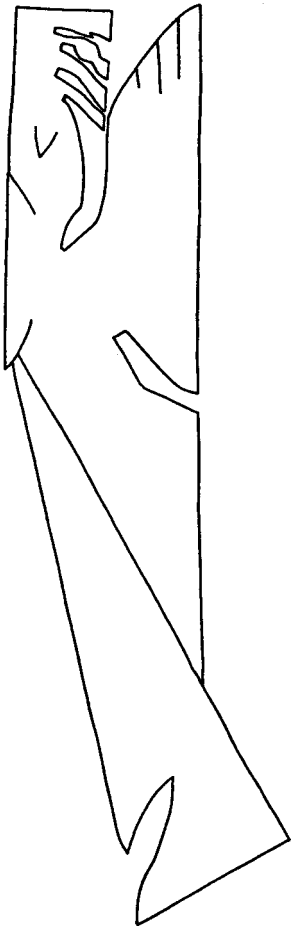


Figure 3.3. Apanchanej, water (female aspect)

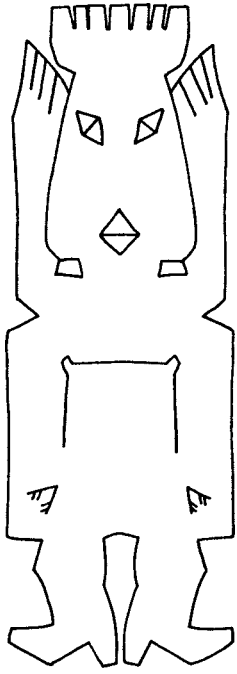


Figure 3.4. *Santa rosa,* marijuana plant

Figures 3.5–3.8 are images of sacred hills. Figure 3.5 is the patron of the hill, Postectli, with the phallic profile of the hill cut into the body. The headdress is a mountain chain, and the image is cut from green paper to associate the figure with plant fertility (Gómez Martínez 2002:90–91). Figure 3.6 is the hill of the siren, another name for Postectli. The shaman said, "When you ask pardon for something you have done, the keys on either side of the figure open the door to the hill." The headdress is the peak of the hill and the small triangles are pockets.

Figure 3.7 represents *tetsacuali,* the spirit of ancient pyramid ruins. In Nahua thought, caves beneath pyramids lead to the world of the dead.

Figure 3.8 represents the spirit of the hill guardian. The complex design cut from the body probably represents clothing. An interesting feature of this image is that the figure is standing on a pyramid representing the hill or the earth.

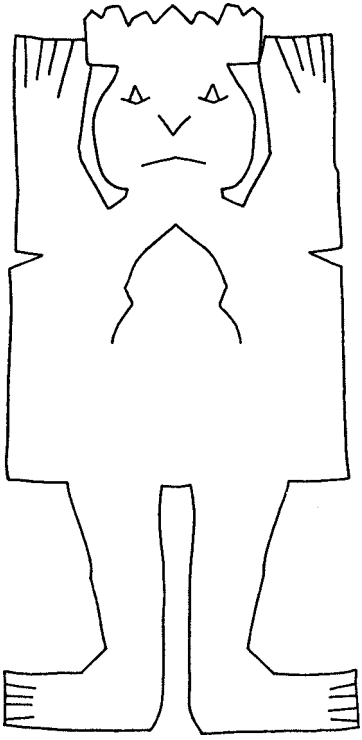


Figure 3.5. Postectli, patron of the hill

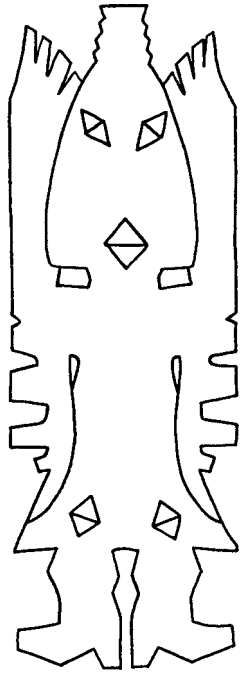


Figure 3.6. Postectli, hill of the siren

Figure 3.7. Tetsacuali, spirit of pyramid ruins

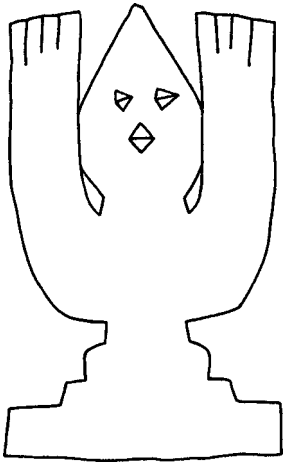
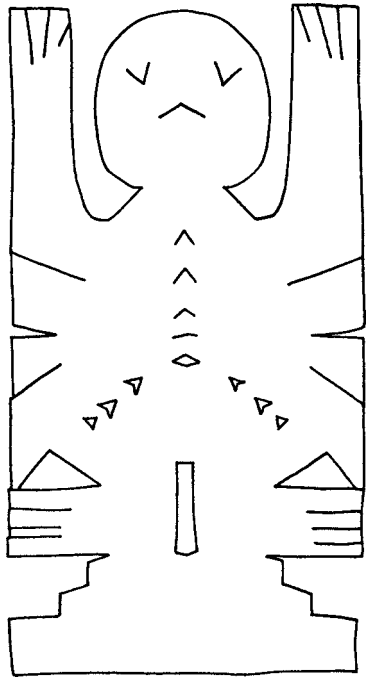


Figure 3.8. Tepetl, hill guardian



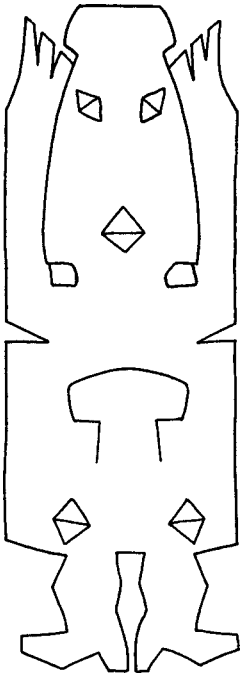


Figure 3.9. Tlatomoni, thunder

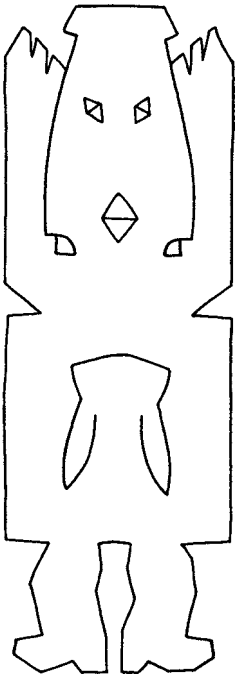


Figure 3.10. Cuatopili, walking stick ("el presidente")

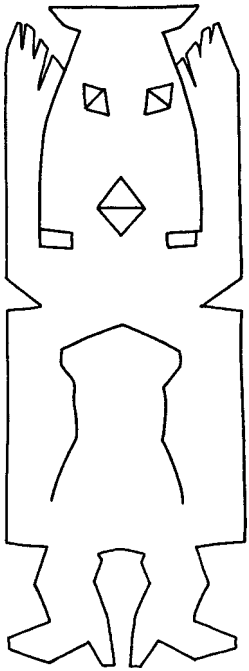


Figure 3.11. Cuatopili, walking stick ("el juez")

Figure 3.9 is *tlatomoni*, the spirit of thunder. The shaman said that he cuts this figure, "so that it will rain." It is cut wearing a cap and has two triangular pockets. The design in the middle of the body is an ax, a tool associated with rain since Pre-Hispanic days (see Bassie-Sweet 1996:15).

Figures 3.10 and 3.11 represent the spirits of the major and minor walking sticks (*cuatopili*), respectively. These are the sticks carried by the *pilhuehuentsitsij*, who bring water from the sea to the cave on the top of Postectli. The shaman calls the more important stick (Figure 3.10) "el presidente," and the less important stick (Figure 3.11) "el juez" (the judge). The design cut in Figure 3.10 is the head of the walking stick with ribbons hanging down; the design in Figure 3.11 is the head of the walking stick alone.

Figure 3.12 represents a good wind that protects people from hurricanes and other damaging winds. The figure is cut from black paper, probably signifying rain clouds. The design on the chest is either a whirlwind or a seashell, which echoes a symbol traditionally associated with Quetzalcoatl in his guise as *ejecatl*, the wind spirit (Baéz-Jorge and Gómez Martínez 1998:39–41; Gómez Martínez 2002:90).

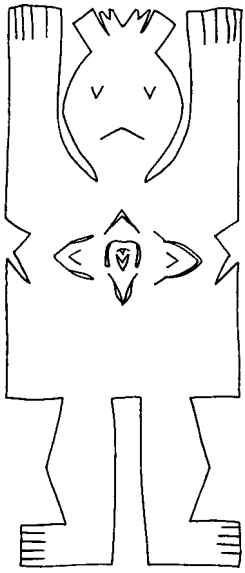


Figure 3.12. Ejecatl, wind (good)

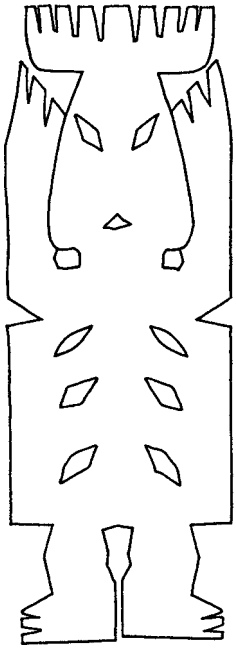


Figure 3.13. Tlali ejecatl, earth wind (malevolent)

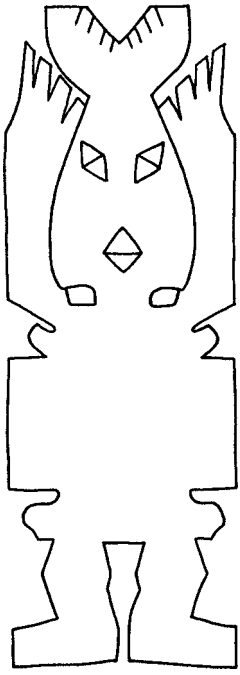
Figure 3.13 is an example of a malevolent wind that causes disease and death. Cirilo calls the spirit *tlali ejecatl,* "earth wind," because it travels around the earth searching for victims. The Nahua associate this type of wind with spirits of the dead, and its distinguishing features are the rib holes cut from the body. The headdress represents the open jaws of the earth. Shamans cut many figures such as this one during curing rituals.

Figures 3.14–3.17 represent some of the different states of water, each of which has a spirit presence, according to Nahua thought. The first image is of *mixtli,* the spirit of clouds. The crown of this male spirit is a flower. Four protuberances are muscles because, according to the shaman, "clouds are strong, you cannot vanquish them."

Figure 3.15 is an image of the dew (in Nahuatl, *ahuechtli*). It is cut with a heart and designs representing water.

Figure 3.16 is the fog (in Nahuatl, *ayohuitl*) with a headdress representing plants, zigzag designs symbolizing water, and the other cuts signifying clothing.

Figure 3.17 is the image of hail (*tesihuitl* in Nahuatl) with the zigzag design in the center representing water. The meaning of the other design elements is unknown.



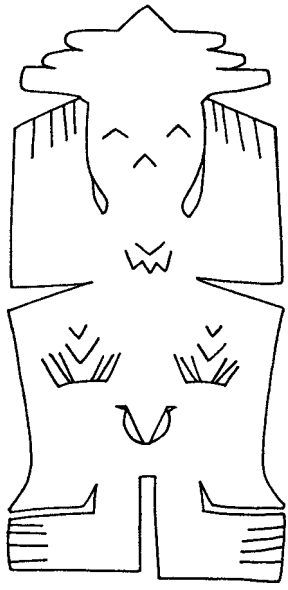


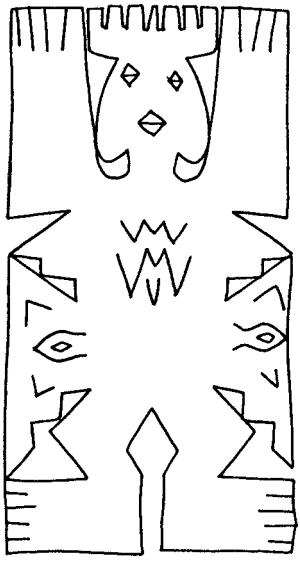
Figure 3.14. Mixtli, cloud

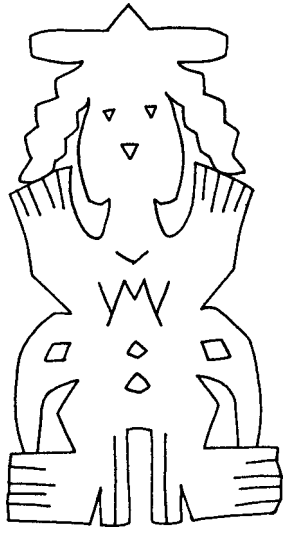
Figure 3.15. Ahuechtli, dew

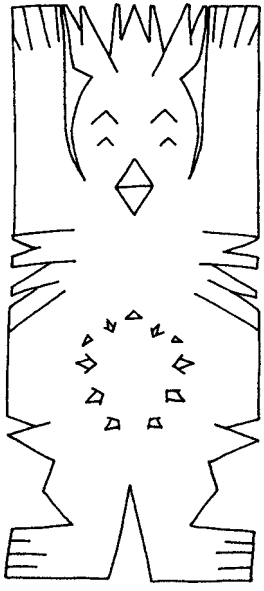
Figure 3.16. Ayohuitl, fog

Figure 3.17. Tesihuitl, hail

Figure 3.18. Tonatij, sun







The final figure (3.18) is Tonatij, the Sun. This figure, with the solar disk represented in the body, is cut from yellow paper. The sun provides the energy that animates the cosmos and infuses everything with divine living energy. It represents the male principle in contrast to the female principle, which is more closely associated with the fertile earth and its life-giving caves.

Notes

1. I want to thank Pamela Effrein Sandstrom, Lawrence A. Kuznar, and James Bradley for reading earlier drafts of this chapter. I also acknowledge the American Council of Learned Societies, the American Philosophical Society, and Indiana University and Purdue University, Fort Wayne for their generous support of the fieldwork portion of this research. We were able to witness the ritual for a second time in June 2001, thanks to the generous support of the Foundation for the Advancement of Mesoamerican Research Incorporated. Special thanks go to Michael A. Sandstrom for providing the drawings of the figures.

2. Use of the word "shaman" for people like Cirilo is controversial in anthropology. Some researchers believe that the term should be used only for ritual specialists among Siberian peoples, who originated the concept (Kehoe 2000). Others recognize a connection between the activities of ritual specialists in Mesoamerica and their Arctic and Subarctic counterparts. See Sandstrom (2001b) and Huber and Sandstrom (2001) for a discussion of the controversy.

3. In the "Histoyre de Mechique," a sixteenth-century manuscript in French, there is an account of the creation of the world with interesting parallels to the ethnographic data presented here. The myth states that the gods Quetzalcoatl and Tezcatlipuca brought down from the heavens the goddess Tlaltecutli, whose joints were eyes and mouths that bit like a wild beast. Quetzalcoatl and Tezcatlipuca changed into huge serpents, grabbed Tlaltecutli, and split her in two. Half went to the heavens and half fell to earth. The other gods were ashamed of the treatment shown Tlaltecutli and ordered that from her would come all of the fruits of the earth that humans required to live: "To accomplish this from her hair they made trees, flowers, and grass; from her skin, tiny plants and small flowers; from the eyes, wells, springs and small caves; from the mouth, rivers and large caverns; from the nose, valleys and mountains" ("Y para hacerlo, hicieron de sus cabellos, árboles y flores y yerbas; de su piel la yerba muy menuda y florecillas; de los ojos, pozos y fuentes y pequeñas cuevas; de la boca, ríos y cavernas grandes; de la nariz, valles y montañas") ("Histoyre de Mechique," 1965:108; my translation; also see Gibson and Glass 1975:340).

4. The boxes containing the seed images have always intrigued me. Over the years I have seen many such boxes on altars, but when questioned about them, people simply asserted that they contained the seeds and that once or twice a year offerings were dedicated to them so that the fields would be productive. I have been unable to locate references to seed boxes in the ethnohistorical literature and so their origin has remained a mystery. However, while I was writing this chapter, a colleague in Mexico informed me that workmen on a construction project had uncovered a sealed stone box at the Templo Mayor in Mexico City, the very heart of the Aztec capital. Sections of the inner city have been systematically excavated, revealing a massive complex of pyramid bases, chambers, and even wooden beams used by Aztec engineers to shore up the soil. In 1998 my wife,

son, and I were permitted to view the items in the box, which conservators were preserving in the museum laboratory. The box contained a paper priest's costume, decorated cloth, small placards of bark paper with the twisted-face deity painted on them, small statues of Tlaloc made from stone, latex, and copal resin, and many other items symbolically linked to rain and water (Escoto et al. 2000:80). The box dates from just before the conquest. We saw no paper figures like those cut in Amatlán or evidence that the box contained symbolic representations of seeds. However, it is suggestive that a box obviously dedicated to the fertilizing principle of the rain contains paper and figures drawn on paper.

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CHAPTER 4

Constructing Mythic Space: The Significance of a Chicomoztoc Complex at Acatzingo Viejo

MANUEL AGUILAR, MIGUEL MEDINA JAEN, TIM M. TUCKER, AND JAMES E. BRADY

The concept of a sacred landscape in which indigenous people attached special significance to geographic features appears to have been of central importance to Mesoamerican cultures from the earliest times. Mountains, large rocks, caves, springs, rivers, trees, roads, features along the seashore, or landmarks with strange or unique forms were identified with mythological events in the remote past, the creation of the world, the origin of human groups, the deeds of ancestral heroes, or places inhabited by powerful spirits or deities. This ideology explained the origin of the world and celebrated the central and special place of one's group in the natural order.

Among the diverse landscape features, mountains and caves stand out as the most important (Vogt 1969:375) and together come to represent the larger concept of the sacred earth. Water, an essential element for life, is thought to be stored within mountains and can often be accessed through caves. The combination of earth and water symbolizes fertility itself, and most living things are thought ultimately to spring from the earth. Caves play a major role in this respect as the metaphorical uterus of the earth (Brady 1988; Heyden 1991). According to the "Histoyre du Mechique" (Histoyre du Mechique 1965:110), Cinteotl (maize god) was born in a cave and emerged to the surface of the mountains and fields to bring food to human beings. In the same vein, Relief 1 at Chalcatzingo represents the god Tepeyolotl (Heart of the Mountain), or a ruler impersonating him, invoking the rain in the interior of the cave in order to produce the fertility necessary for human sustenance. The uterine theme is also evident in Olmec altars at La Venta and San Lorenzo that have been shown to be thrones (Grove 1973). These monuments depict human figures emerging from caves represented by the open mouths of jaguars. Ethnographic evidence strongly suggests that the scene is a statement that the ruler or his ancestor was born from the earth and therefore was directly related to the earth deities (Brady 1989:55–64).

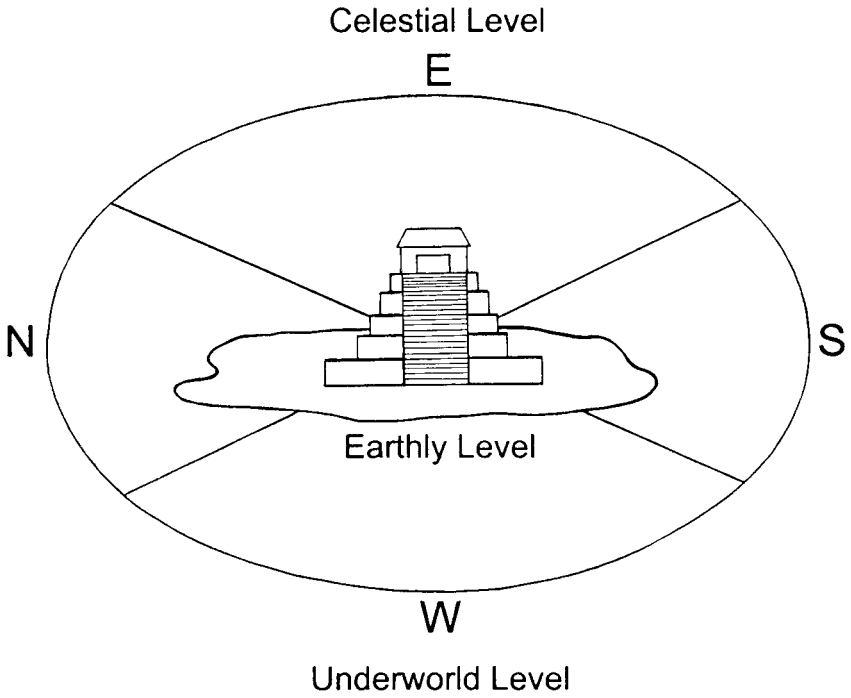


Figure 4.1. A representation of the quincuncial model of the Mesoamerican universe. Drawn by Mario Dávila, after Matos Moctezuma (1988).

Overlaid on any specific landscape was a more general Mesoamerican concept of the universe as a quincunx, that is, a plane with four corners. These cardinal points established the directions of the universe where diverse deities lived (Figure 4.1). At the center of the plane was an imaginary axis, often embodied as the Tree of Life. The tree was located above a mountain. Its roots were anchored in the underworld and its foliated branches reaching the heavens, establishing the union between sky, earth, and the underworld.

The center was, above all others, the most sacred of places, a place of prestige and of inexhaustible abundance (Eliade 1958:379–382). The center is where the creation of the world and the creation of humans took place.

A common feature of settlements in traditional societies is that they are laid out so as to conceptually place them at the center of the cosmos (Eliade 1954:12). Thus, a community's sacred mountain or its artificial substitute, the central pyramid, came to represent the sacred mountain at the cosmic center. It should be noted that the identification of communities in Central Mexico with mountains is strong. The Nahuatl word for "community," *altepetl,* literally means "water-filled mountain" and is shown glyphically as a mountain with a

turned-up base that represents a cave (Broda 1996:460; Figure 4.2). In the following section, we will describe how these concepts of sacred landscape actually took material form at the site of Acatzingo Viejo.

Acatzingo Viejo

The site of Acatzingo Viejo is located about 4 kilometers southeast of the present-day town of Acatzingo, Puebla, Mexico, and just south of the Puebla-Veracruz highway. The site was surveyed and recorded by the Proyecto Acatzingo-Tepeaca in 1995. All that remains of the site is a 7-meter-high pyramid, which is flanked on either side by low lateral platforms. The site was probably more extensive at one time, judging by the sherds and artifacts strewn across the heavily plowed fields that surround the remaining architecture. Test excavation established that the site was occupied from the Late Classic/Early Postclassic into the early Colonial Periods (Sheehy 1995). As part of that project, a series of small caves along the edge of the site, some 450 meters east of the central plaza (Figure 4.3), were recorded by Medina Jaen (2000).

As part of a project conducted by the Mesoamerican Research Foundation under the direction of Tim Tucker, the caves were remapped in August 2000. The study of these caves provided an opportunity to demonstrate the historical character of the Map of Cuauhtinchan No. 2, which had been drawn of the area. It was possible to observe from the top of Cerro Tlaxcanyo, next to the town of Tepeaca, that the region delimited by the volcanoes Popocatépetl and Iztaccihuatl to the west, the Malinche Volcano to the north, the Pico de Orizaba to the east, and the Sierra Tentzón to the south had been faithfully rendered by the indigenous artist. Relative position of landmarks was depicted with exactness, while there was greater imprecision in scale, as the cartographer manipulated distances to fit the important features into a rectangular format. The map was made in the sixteenth century with the purpose of legitimizing land claims in light of the confusion and dispossessions created first by Aztec domination and later by the Spanish conquest. It also presents a historical account of the Toltec-Chichimec migrations and their settlement in the towns of the Valley of Puebla. During the mapping of Acatzingo Viejo, it was possible to establish the geographic location of a group of caves that appear on the Map of Cuauhtinchan No. 2.

The current study focuses on this complex of caves built along a natural escarpment approximately 5 meters high. Six caves have been excavated into the fairly sheer face of volcanic ash (Figure 4.4). Five of the six are located south of a recently constructed road leading to a Pemex installation. All of the caves are small. The largest, Cave #2, is only 15 meters × 11 meters and slightly over 2.5

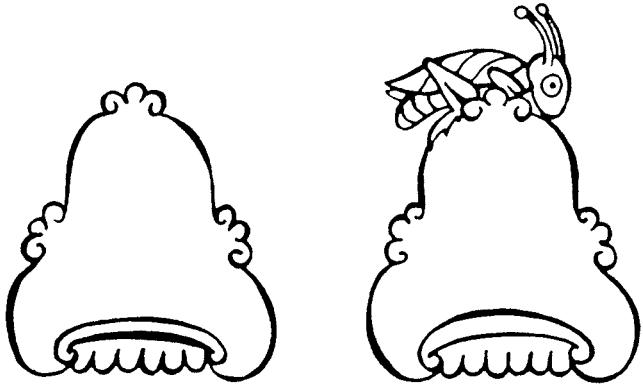
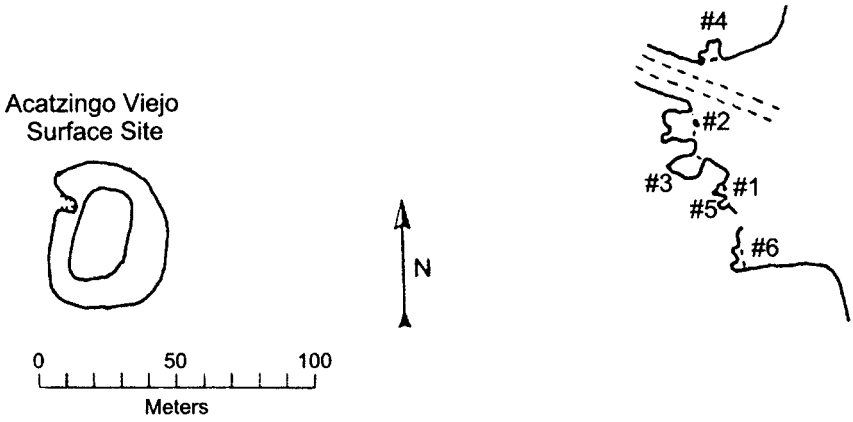


Figure 4.2. The glyph for *altepetl,* "community," actually means "water-filled mountain." At the right is the glyph for the town of Chapultepec. Drawn by Mario Dávila.

Figure 4.3. The relationship of the cave to the remains of the site of Acatzingo Viejo. Drawn by John Fogarty and Allan Cobb.



meters high (Figure 4.5). The entrance is high enough to allow a person to walk in, and a second opening was cut during the construction of the road next to the cave. With the two openings, the entire cave is in the light zone. The cave consists of a single large, roughly circular chamber with two smaller alcoves at the back. The floor is flat, and small stones appear to have been placed along the cave wall to keep the floor clear. We noted some sherds on the floor, and Medina Jaen (2000:300) reports finding ceramics dating to the Postclassic. During the mapping, the presence of a number of corncobs and chicken feathers was recorded, suggesting that the cave may still be used for ritual. In fall 1994, Tucker

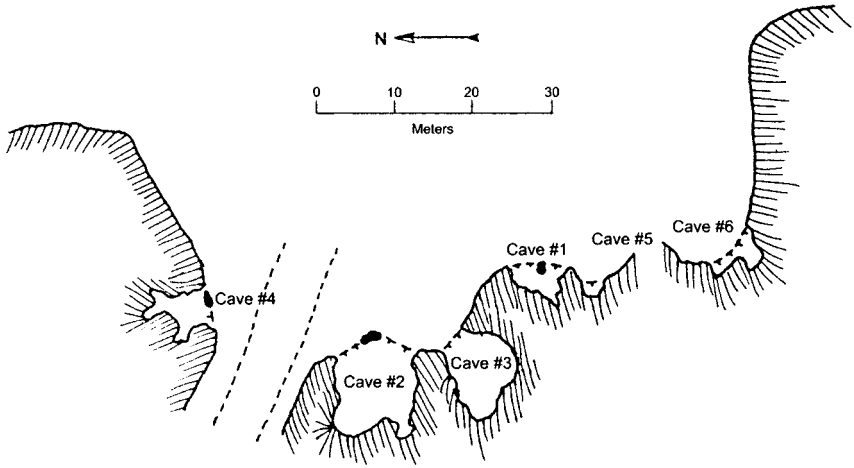


Figure 4.4. The six excavated caves and the modern access road at the site of Acatzingo Viejo. Drawn by John Fogarty and Allan Cobb.

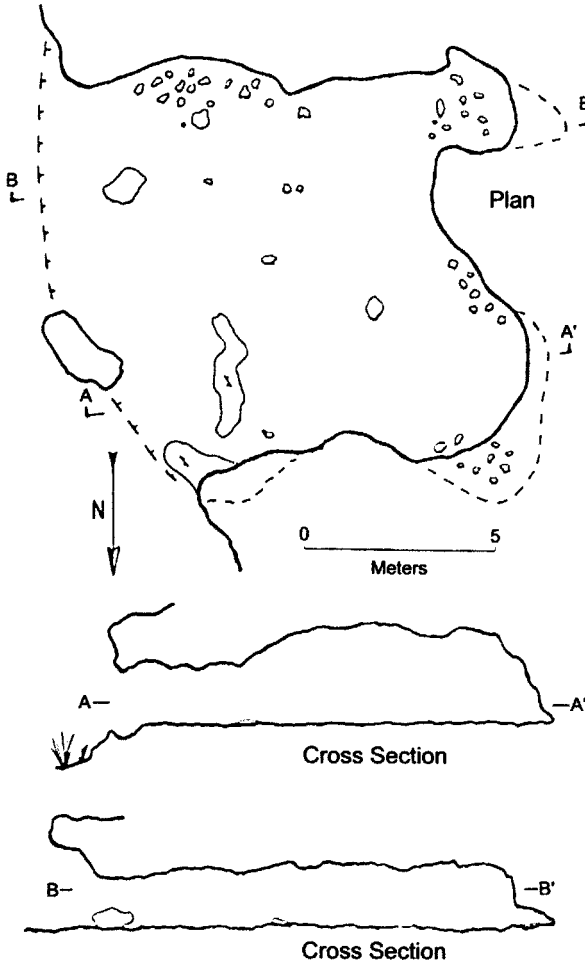


Figure 4.5. Acatzingo Viejo Cave #2. Drawn by John Fogarty and Allan Cobb.

observed a small modern ceramic censer at the back of the southern niche along with black chicken feathers. The ceiling is heavily smoke blackened. Allan Cobb removed a small amount of black soot with a pocketknife and heated it with a cigarette lighter. The smoke that was given off had the distinctive odor of burned rubber, and pieces of burned automobile tire were noted on the floor of the cave.

Cave #3, located only five meters to the south of Cave #2, is similar in size and form to the latter (Figure 4.6). The character of the cave is quite different, however, because the entrance is low, only eighty centimeters high, so one has to stoop or crawl to enter the cave, and the chamber is considerably darker. Few details about this cave are available because a large portion of the floor has been destroyed by four large looter's pits or trenches, and what has not been destroyed has been covered by backdirt. The ceiling, however, shows a good deal of smoke blackening.

Approximately fifteen meters south of Cave #3 is a small open feature designated as Cave #1 (Figure 4.7). A floor-to-ceiling column at the entrance divides the cave in half. The most interesting feature is a small altar at the back of the cave that was created by a stone slab that rises thirty-five centimeters from the floor. The area behind the slab was filled with earth to create a level surface. A paintbrush was used to sweep the loose soil from a small area on top of the altar to reveal a hard, fire-blackened surface. A corncob, several chicken feathers, two agave spines, an obsidian blade, and a sherd were noted on the surface of the altar. The placement of the agave spines raised the possibility that they had been used as bloodletters. Each of the spines was wiped with a Luminol swab to check for the presence of hemoglobin, but the results were negative. A hard black substance appears to have been spilled on the wall along the back of the altar. We heated a sample and once again it gave off the odor of burned rubber. On the floor of the cave were several pill bottles and aluminum casings that once held antibiotic tablets.

Cave #5 is located just to the south of Cave #1, but the mouth was so obscured by plant growth that it was originally overlooked. Like Cave #1, Cave #5 is small and completely in the light zone (Figure 4.8). The floor is extremely dry and covered by a layer of fine powder. Four corncobs, dry orange peels, and several mango pits were noted in the dust.

Cave #6, the southernmost grotto in the escarpment, consists of two chambers (Figure 4.9). The smaller, northern passage could not be checked for cultural material because of a wasps' nest hanging in the middle of the ceiling. The southern chamber extends far enough back and the passage is low enough that one enters a twilight zone. Both chambers slope downward from the entrance and appear to take considerable water during rainstorms; the soil in the southern chamber was still quite wet three days after a rainstorm. The water appears

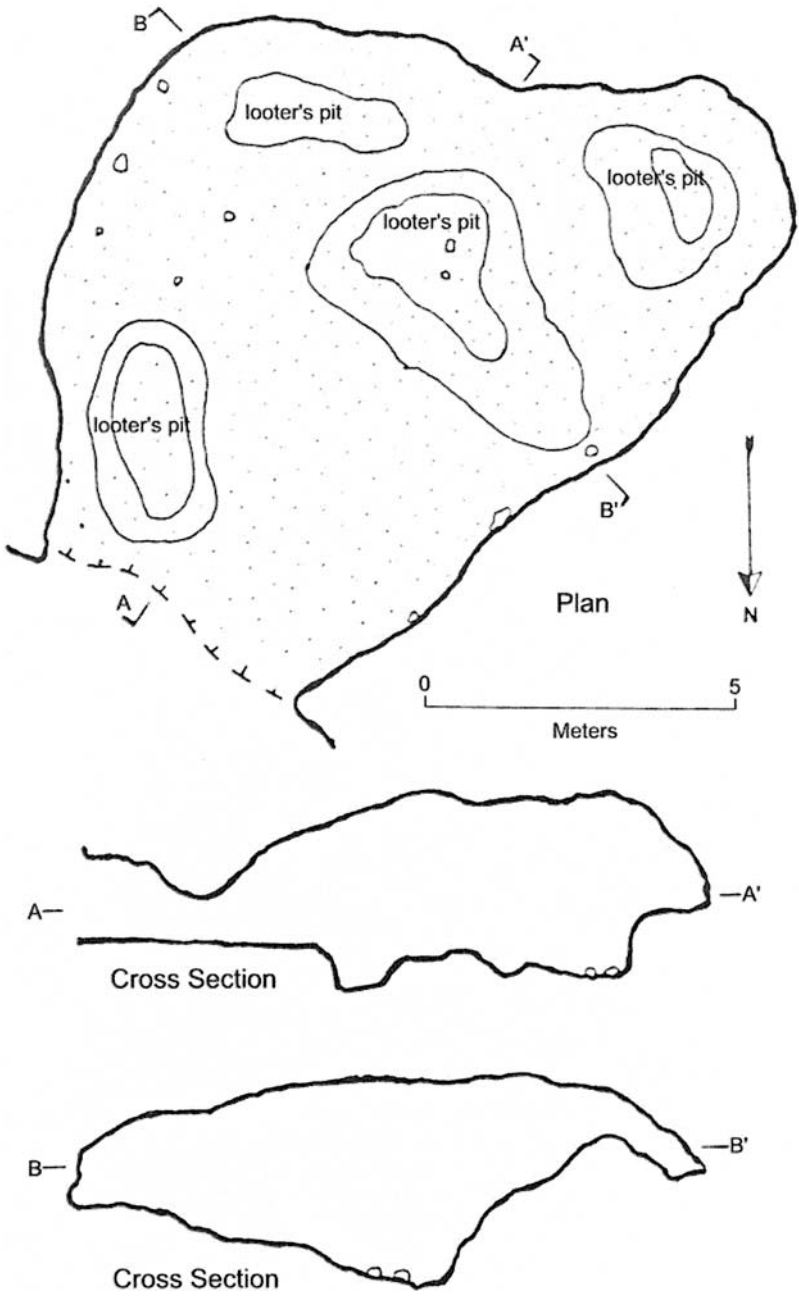


Figure 4.6. Acatzingo Viejo Cave #3. Drawn by John Fogarty and Allan Cobb.

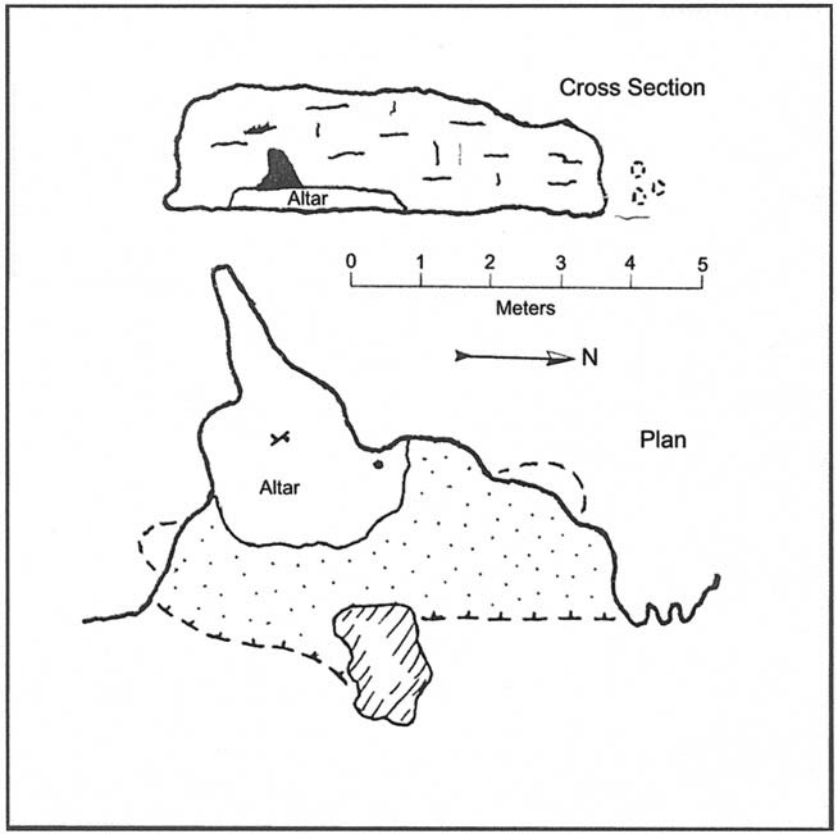


Figure 4.7. Acatzingo Viejo Cave #1. Drawn by John Fogarty and Allan Cobb.

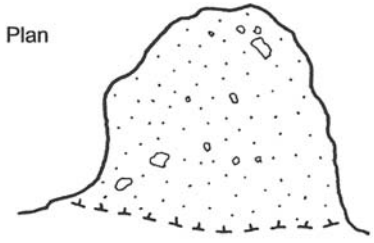
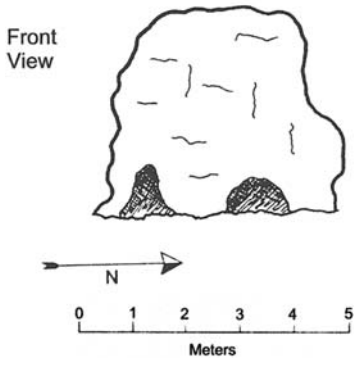


Figure 4.8. Acatzingo Viejo Cave #5. Drawn by John Fogarty and Allan Cobb.



to be washing sediment and other debris into the cave so that the original floor is now deeply buried. Thus, the cave may have been considerably higher in Pre-Columbian times. It may also have been larger. Two small passages at the end of the southern chamber are now impassable, but this may be the result of recent collapse. A large piece of ceiling collapse in this area is lying on a disintegrating plastic bag, indicating that the breakdown occurred recently.

Cave #4 is the only cave located north of the access road and appears to have been damaged by the construction. Rocks and soil from the grading have entered the cave and covered part of the floor. The ceiling shows fire blackening, indicating recent use (Figure 4.10).

In evaluating the discoveries it should be stressed that all the caves are located in a small, crescent-shaped segment of escarpment. The escarpment is small enough that it placed some constraints on the size of the caves so that all would fit. This suggests that the placement in this single, naturally bounded feature was intentional and important. The fact that they were placed in close proximity to each other made it possible to view all at the same time when the underbrush was cleared. Thus, the close proximity within a naturally bounded landscape feature suggests that the caves were meant to be part of a single complex.

The fact that the caves are found in a stratum of nonkarstic volcanic ash is also significant, because it is clear that the features are not natural and must have been excavated. This is important because it means that the form and placement of the caves reflect conscious decisions rather than the whim of nature. Elaborate artificial caves may provide important data about exactly what the structures were designed to represent. In examining the map of the escarpment, it is clear that the area destroyed by the construction of the road was large enough to contain a cave similar in size to the other six. Interviews with local informants verified that the road had destroyed a seventh cave. The layout of the other six also suggests that one should have been placed where we suspect the destroyed cave to have been. Thus, in its original form, the Acatzingo Viejo complex consisted of seven cavities.

During the first study, Medina Jaen (2000:303) collected ethnographic data on the area. One of the more interesting accounts by a resident of San Cristóbal de los Nava states that the caves connect to the Malinche Volcano, approximately thirty-five kilometers to the northwest. In this respect, the caves at Acatzingo Viejo, like many natural caves in Mesoamerica, are believed to be connected to other important features of the sacred landscape through unrealistically long passages. Medina's informant also relates that in his youth he attempted to find the passage and the seven barrels of gold that, according to his parents, were supposed to be buried there. We would suggest that the presence of seven barrels is not simply coincidental but is directly connected to the existence of seven caves.

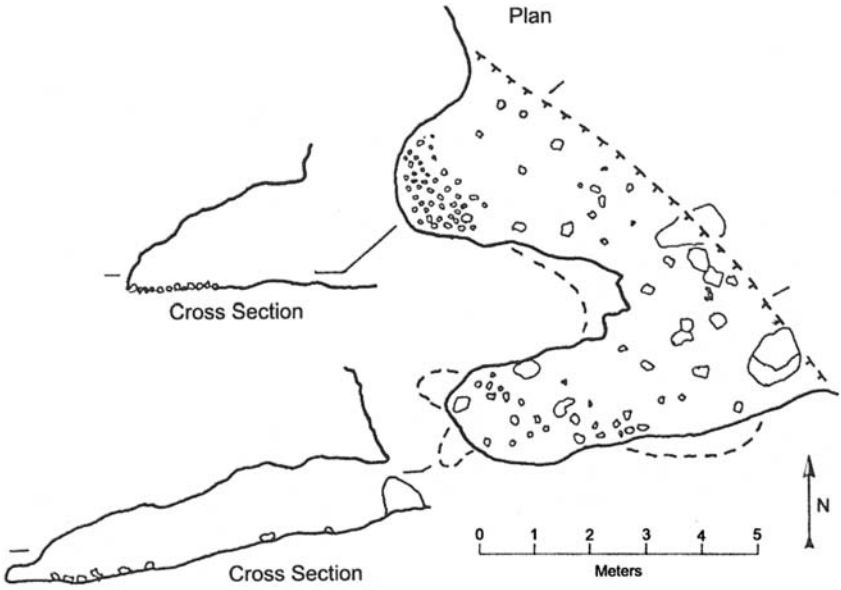


Figure 4.9. Acatzingo Viejo Cave #6. Drawn by John Fogarty and Allan Cobb.

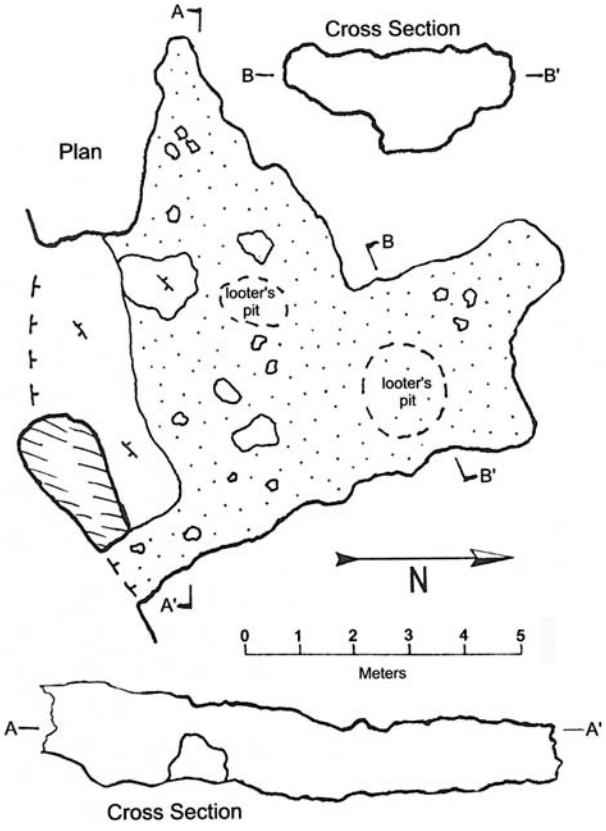


Figure 4.10. Acatzingo Viejo Cave #4. Drawn by John Fogarty and Allan Cobb.

Discussion

In attempting to put the Acatzingo Viejo discoveries in a larger social, historical, and theoretical framework, we would note that geographer Erich Isaac has proposed that, as ideal polar opposites, there are two basic religious orientations. The first seeks the justification of human existence in the act of creation itself, while the second orientation finds it in a divine charter or covenant. Ritual, in the second case, will repeatedly reference the covenant, and landscape modifications will be minimal. In societies that see creation as the central justification of human existence, Isaac (1962:12) says that "the attempt will be made to reproduce the cosmic plan in the landscape with greater or lesser effect upon the land, depending on the elaborateness of reproduction attempted." While the concept of the covenant is not unknown in Mesoamerica, cosmology definitely focuses on the act of creation.

This observation is supported by García-Zambrano's discussion of contact-period rituals of foundation throughout Mesoamerica. He notes that people attempted to find a spot with certain types of features:

> Essentially, Mesoamerican migrants searched for an environment with specific characteristics that comprised several symbolic levels . . . Such a place had to recall the mythical moment when the earth was created: an aquatic universe framed by four mountains with a fifth elevation protruding in the middle of the water. The mountain at the core had to be dotted with caves and springs, and sometimes surrounded by smaller hills. A setting like this duplicated, and forever would freeze, the primordial scene when the waters and the sky separated and the earth sprouted upwards. (García-Zambrano 1994:217–218)

The fact that there were once seven caves at Acatzingo Viejo immediately suggests a relationship with the Chicomoztoc. Perhaps the best-known representation of Chicomoztoc is that found in the *Historia Tolteca-Chichimeca* (Kirchhoff et al. 1976), containing seven internal chambers. It should be noted, however, that within the indigenous sources there is no consensus on Chicomoztoc's physical form. In some ethnohistorical documents the mythical place is portrayed as a linear arrangement of seven discrete caves. The linear arrangement in the Codex Vaticanus A (1979) and in the *Atlas de Durán* (Durán 1995) closely resembles the arrangement noted at Acatzingo Viejo (Figure 4.11). We believe that this alignment of seven caves is definitely a re-creation of the Chicomoztoc made by the Chichimec as a reconstruction of their mythical place of origin. Unfortunately, as already mentioned, the seventh cave was destroyed in about 1993 by the construction of a road that leads to a Pemex installation; however, ethnographic data confirm the existence of the now-lost cave.

Nahua groups conceived of the archetypical homeland or place of creation and origin as the Chicomoztoc, or Place of the Seven Caves. All of the important sixteenth-century chronicles, both indigenous and Spanish, make reference to this place and present pictorial representations in some of the codices. The *Historia de los mexicanos por sus pinturas* (Garibay 1965:36–39) mentions an island called Aztlan (Place of Whiteness or of the Herons) that was surrounded by a lake. On one of the shores was a mountain named Colhuacatepec or Colhuacan (Twisted Hill), which contained the seven caves. The same document says that in this place, located northwest of New Spain, the god Camaxtle hit a rock with a stick and four hundred Chichimec emerged. Durán (1995:Chap. 1) considered Aztlan, Colhuacan, and Chicomoztoc to be different names for the same place of origin located to the north of New Spain, near Florida. The seven Nahua tribes that populated the Valley of Mexico—the Xochimilca, the Chalca, the Tepaneca, the Culhua, the Tlahuica, the Tlaxcalteca, and the Mexica—all came from this place (Figure 4.12).

The *Historia Tolteca-Chichimeca* (Kirchhoff et al. 1976:161) and the Map of Cuauhtinchan No. 2 (Yoneda 1981:123) narrate and illustrate a different story of the exodus from Chicomoztoc. In these sources, it was the seven Chichimec peoples—the Cuauhtinchantlaca, the Totomiuaque, the Acolchichimeca, the Tzauhcteca, the Zacateca, the Malpantlaca, and the Texcalteca—who settled in the Valleys of Cholula and Puebla who emerged from the caves (Figure 4.13). The Map of Cuauhtinchan No. 2 illustrates the significance of the act of leaving the cave as a metaphor for the act of creation symbolized by the New Fire ceremony. This ritual portrayed the exit of human beings from the womb of the earth as the start of time (Figure 4.14). The same document also mentions that in Chicomoztoc the Chichimec performed penance for four days, fasting and letting their blood. These rituals may have been understood to have produced altered states of consciousness, because Chimalpahin refers to Chicomoztoc as Quinehuayan (Place Where One Is Possessed). Ruiz de Alarcón also noted the relationship of bloodletting and trances: "After he had placed it (offering), he sacrificed himself by shedding his blood, for which he carried a point made from a sharpened sliver of cane . . . They say that some fainted or fell asleep, and in this ecstasy they either heard, or fancied that they heard, words which their idol spoke to them" (Coe and Whittaker 1982:80–81).

The perforation of the septum of the Chichimec chiefs in a ritual that made them *tlatoanis* [rulers] was also performed in Chicomoztoc. This symbolized the conversion of the nomadic Chichimec into the civilized Toltec. Thus, in this case, the caves played a role as places of transformation and legitimization of the lineages and genealogies of the groups that held power.

Chimalpahin (1998:Vol. 1) describes the mysterious place as Chicomoztoc Tzotzompa Quinehuayan, There Where the Seven Holes in the Rock Are. It is

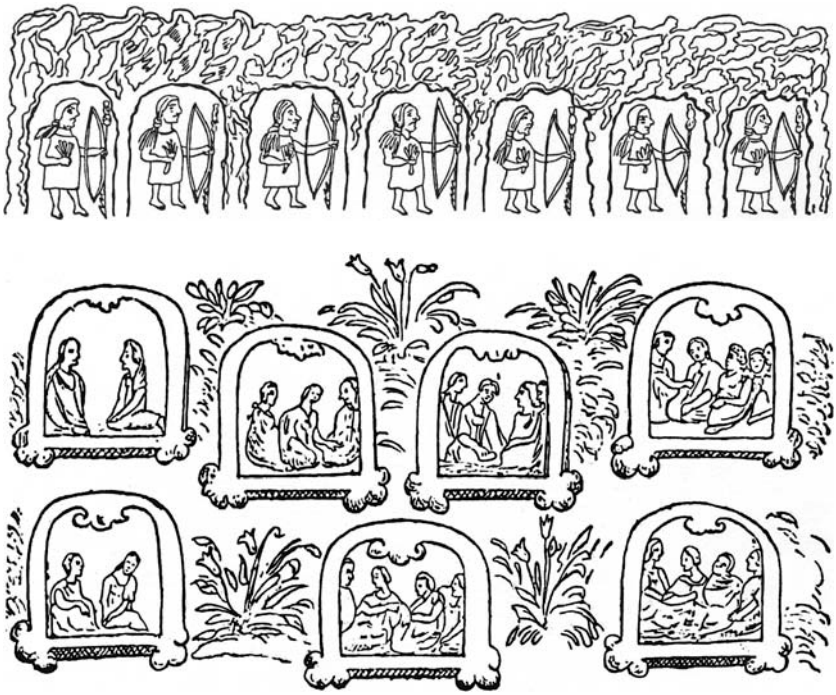


Figure 4.11. The Chicomoztoc shown as a linear arrangement of seven caves from (top) the Codex Vaticanus A and (bottom) the *Atlas de Durán.* Drawn by Mario Dávila.

Figure 4.12. A depiction of the Mexica leaving Chicomoztoc. Drawn by Mario Dávila, after Durán (1995).

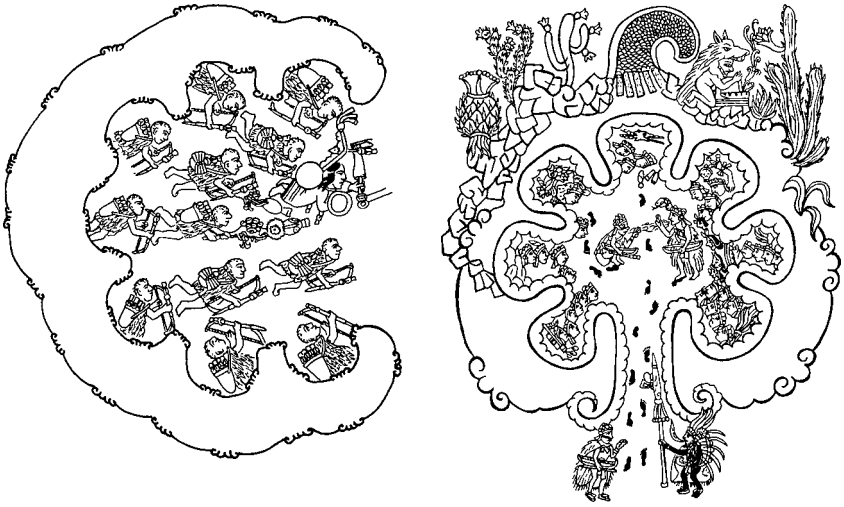


Figure 4.13. Two representations of the Chichimec tribes in Chicomoztoc from (left) the Map of Cuauhtinchan No. 2 and (right) the *Historia Tolteca-Chichimeca.* Drawn by Mario Dávila.

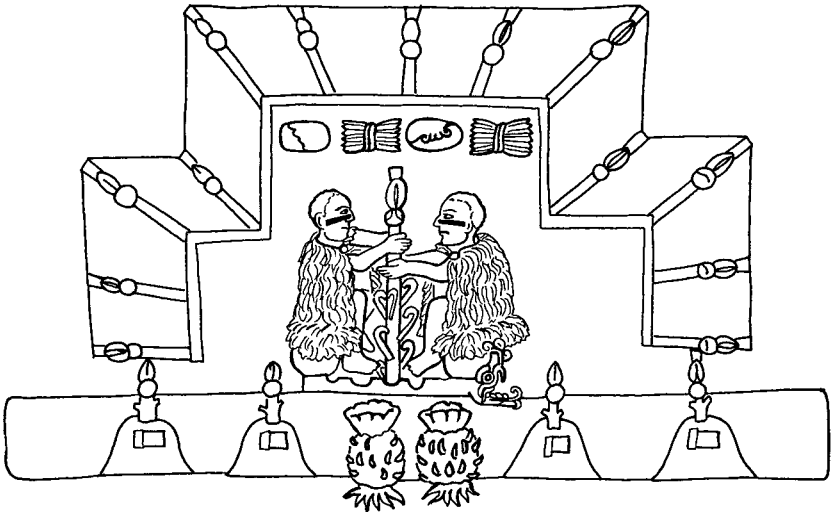


Figure 4.14. The Chichimecs performing the New Fire ceremony, from the Map of Cuauhtinchan No. 2. Drawn by Mario Dávila, after Yoneda (1981).

a place of fear, filled with *tzihuactli* (thorny plants), *necuámitl* (wild maguey or agave), *teocomitl* (*biznaga*), *xihuallacatl* (big green squashes), *zacates* (grass), and parched places.

The aforementioned chronicles motivated historians to search for the location of Chicomoztoc. Sahagún (1975) places it in Cerro Coliuhquitépetl on the territorial boundary between the Mexica and the Michuaca (Tarascans of Michoacán). Kirchhoff et al. (1976) locate it in Cerro Culiacán, near the town of San Isidro Culiacán in the state of Guanajuato. Jiménez Moreno (1942) puts it in the Tula-Xilotepec region in the state of Hidalgo, and Chavero (1887) places it in the region of the present city of Culiacán in the state of Sinaloa. Both Torquemada (1964) and Clavijero (1978) identify it with the ruins of La Quemada in the state of Zacatecas.

Most modern authorities tend to consider Chicomoztoc to be a mythical rather than an actual place. Chicomoztoc represents the idea of the emergence of human beings from cavities in the body of the earth. This idea was applied by Aztec shamans and sorcerers in their incantations to the human body wherein the seven openings were referred to as seven caves (Ruiz de Alarcón 1982:223). As time passed, the guardians of the Mesoamerican tradition preserved their sense of identity and origin by re-creating Chicomoztoc at their sites either by taking advantage of natural caves or by excavating caves. In this sense, all the chroniclers and historians are correct, because many Chicomoztoc existed in all parts of Mesoamerica (see, for example, Brady 1991).

Also important is the location of the ceremonial plaza at Acatzingo Viejo, above the escarpment containing the row of seven caves. The caves are, therefore, associated with the site's core and major pyramidal structure. The complex is not unique in this respect, but, rather, appears to be part of an established Central Mexican tradition. At Totimehuacan, Puebla, Spranz (1967) discovered an artificial cave beneath the principal Late Preclassic pyramid. The Great Pyramid at Cholula is built over a spring and possibly an artificial cave (McCafferty 1996:5). Perhaps the best-known example is the artificial cave, shaped like a uterus, beneath the Pyramid of the Sun at Teotihuacan (Heyden 1973, 1975, 1981). We suspect that the many segments of stone drains found in the cave are part of a system that channeled rainwater from the pyramid into the cave. As the cave filled and water flowed out the entrance, it would appear that the cave was built over a spring. There are a number of impressive artificial caves in and around the central ceremonial complex at Xochicalco, including the well-known Observatory (Hirth 2000:216). In many ways, the Aztec Templo Mayor of Tenochtitlan replicates all of the symbolic features of the Pyramid of the Sun at Teotihuacan. According to the legend recorded by Alvarado Tezozomoc (1975:63), the Templo Mayor is built at the spot where the Aztecs found an eagle on a cactus holding a serpent. What is less well known is that the cactus was growing

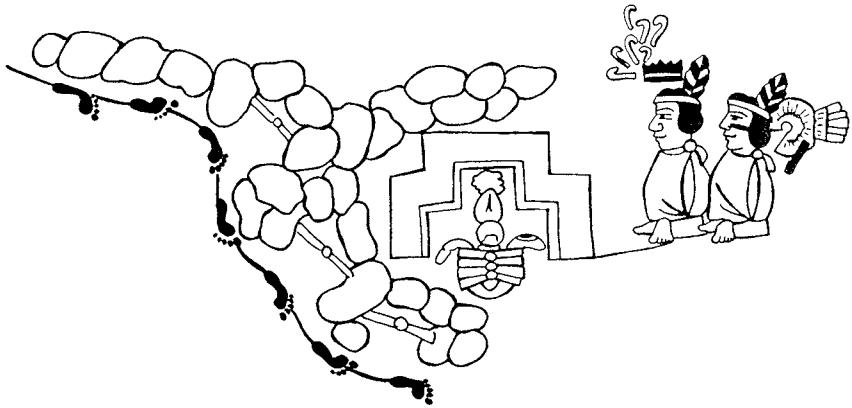


Figure 4.15. Itztlapoca and Apanecatl in front of a cave on the Map of Cuauhtinchan No. 2. Drawn by Mario Dávila, after Yoneda (1981).

over two caves from which water issued. The Acatzingo Viejo complex should, therefore, be seen as part of a pattern found in numerous places which dates from the Preclassic all the way to the conquest.

The question that arises is why the ancient inhabitants of Acatzingo Viejo would construct this symbol at their site. In his study of the rituals that accompanied the founding of a new community, García-Zambrano (1992, 1994) argues that throughout Mesoamerica indigenous peoples looked for spots that recalled the mythical moment of creation. The cave was the critical element; thus, "these cavities, when ritually dedicated to the divinities, became the pulsating heart of the new town, providing the cosmogonic referents that legitimized the settlers' right for occupying that space and for the ruler's authority over that site" (García-Zambrano 1994:218). Nor is there any doubt about what the cave was supposed to represent. García-Zambrano (1994:217–218) observes that, "many times, the grotto was manually excavated to approximate its shape to that of the mythological cave with internal niches. The grotto alluded to the mythological place of origin that preceded all intent of migration: Chicomoztoc, Apoala, Tulan Zuyua, and Chalchiuitlapazco." The Acatzingo Viejo cave complex, therefore, was the ritual heart of the community that legitimized the very settlement. We can see in the Map of Cuauhtinchan No. 2 (Yoneda 1981:130) that the cave complex has a clear relationship with the founding of the town of Acatzingo Viejo. The rulers Itztlapoca (Obsidian-Smoke) and Apanecatl, who came from Tepeaca in the year 4 Calli (Figure 4.15), are depicted as seated next to the cave (Kirchhoff et al. 1976:218). Thus, the seven caves symbolize the establishment of the settlement and the origin of a new ruling dynasty.

Just as pyramids are artificial re-creations of the primordial mountain, the

Chicomoztoc represents the cave from which humans emerged. Taken together, the two constructions became a powerful statement that Acatzingo Viejo was built at the very center of the cosmos, because the primordial mountain and the place of human creation both define this spot. The importance of centering sites is a well-recognized Mesoamerican preoccupation (Freidel et al. 1993:123–172). The cave complex also represents the generative womb of the earth that is, at the same time, the guardian of the natural forces such as wind and water. This relates to Eliade's observation of the center as a place of inexhaustible abundance. Thus, the holiness of the complex made it an appropriate landmark around which to build a temple. The mountain/cave symbol came to represent the very basis of ethnic identity. As noted, this relationship between people and the mythic Chicomoztoc was so deep that people were identified with the cave itself throughout Mesoamerica.

Acknowledgments

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PART 2

OAXACA

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CHAPTER 5

Pre-Hispanic Rain Ceremonies in Blade Cave, Sierra Mazateca, Oaxaca, Mexico

JANET FITZSIMMONS

Although Oaxaca is one of the great karstic regions in Mesoamerica, relatively little archaeological investigation has been undertaken in its caves. To date, only four major archaeological caves have been reported in any detail. Our knowledge of Oaxaca is particularly incomplete because the cave sites are located among only two or three ethnic groups (Figure 5.1). Pre-Hispanic cave use is currently known from the Cueva de Ejutla burial site in the Mixtec/Cuicatec region (Moser 1975, 1976, 1983) and Cueva Cheve in the Cuicatec Highlands (González Licón and Márquez Morfín 1994; Steele and Snavely 1997). In the Mazatec area, there are reports for the Cueva de Tenango (Winter 1984), and the caves of the Cerro Rabón (Bitterli 1996; Hapka and Rouvinez 1994, 1997). The purpose of this chapter is to report on a fifth cave, Blade Cave, also in the Mazatec area.

Blade Cave, located approximately 120 kilometers north-northwest of Oaxaca City, was discovered in 1985 by a group of speleologists who, since that time, have fielded expeditions to Huautla de Jiménez, Oaxaca, in an attempt to prove that the Huautla cave system is the deepest in the world. The chambers in Blade Cave containing archaeological material were discovered on April 12, 1985, by Frank Bogle and Paul Wojtkowski. I directed the archaeological exploration of the cave between 1985 and 1987 as a member of the Huautla Project, which was codirected by Jim Smith and Bill Steele. The cave, named for an 18-centimeter-long bifacially chipped blade, was reported to the Oaxaca Regional Office of the Instituto Nacional de Antropología e Historia. In the Mexican literature, the cave has been referred to as the Cueva de los Pedernales (Winter 1990:124).

The cave is set in a karst formation about eighteen hundred meters above sea level in the approximate center of the Sierra Mazateca. The area is isolated, and the small cave entrance is only occasionally visited by local goatherds. The

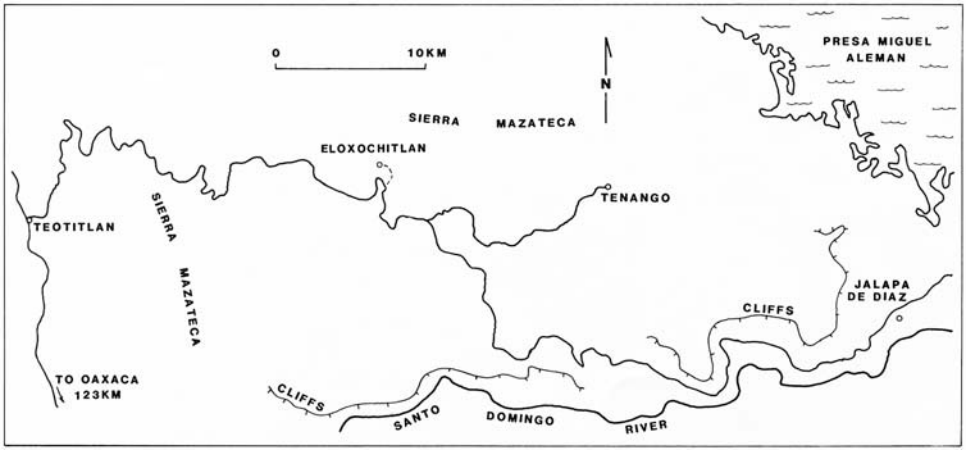


Figure 5.1. The Sierra Mazateca and Blade Cave.

chambers containing archaeological material are tucked away within the cave and can be accessed only by squeezing through a tight hole. The chambers are wet with active formations. Water drips from the walls and ceiling and pools behind shallow rimstone dams.

Methods

The cave was surveyed using standards developed by the Cave Research Foundation in Mammoth Cave, Kentucky (Freeman 1975:59). The mapping was carried out using a Suunto compass together with a Suunto inclinometer to measure vertical angles, and distances were measured with a tape measure.

When the cave was discovered, the absence of recent tracks and the presence of easily transportable artifacts such as ceramic vessels and jade suggested that the chambers were undisturbed. Three chambers containing archaeological material were located. Each chamber was divided into zones to facilitate recording. Zones contain a cluster of cultural material or a recognizable geological entity. Zone boundaries were arbitrarily defined to encompass artifact concentrations. The research design was adapted from that developed by Watson (1974:28–29) in Salts Cave to record material qualitatively by its nature and relative density. The technique focused on describing the interrelationship of "clusters" of artifacts rather than individual pieces. Each zone was photographed and sketched and a written description was made.

Chamber Descriptions

The three archaeological areas in Blade Cave are referred to as Chambers 1, 2, and 3 (Figure 5.2). Chamber 1 is connected, via a restricted squeeze, to the main cave passage. The room, trending toward the northeast, is approximately ten meters in length, four meters wide, and perhaps five meters high. Chamber 2 extends some twenty meters to the northwest and averages four meters in width. Chamber 3 extends thirty meters and turns back to the southeast as the passage

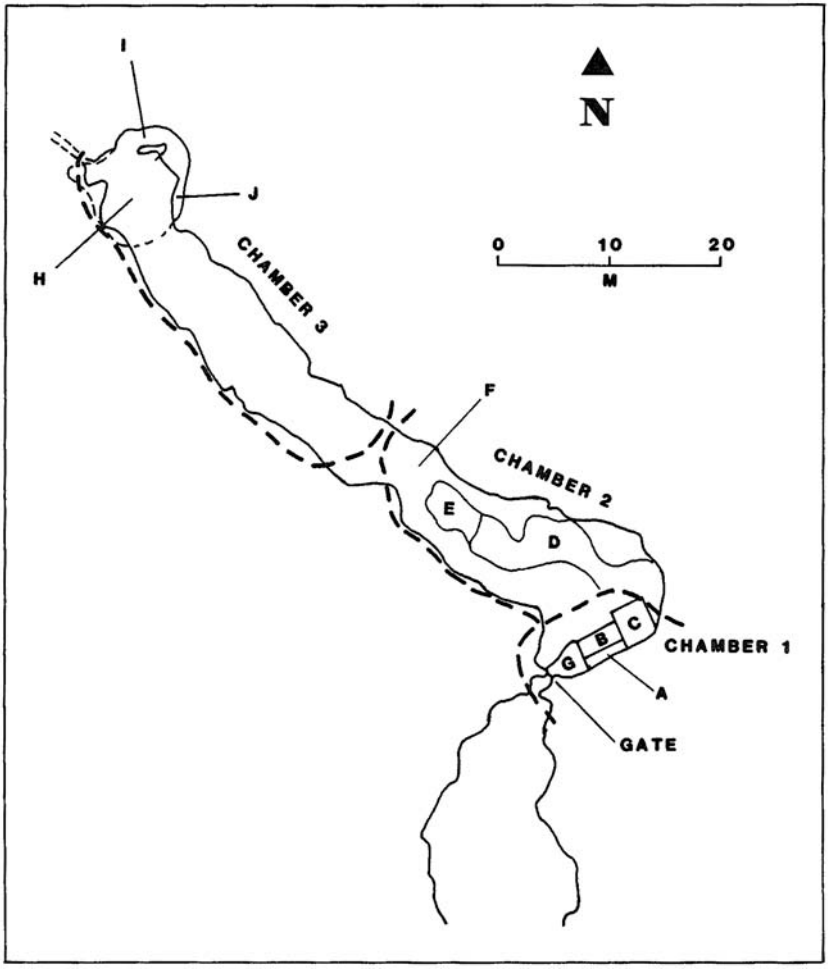


Figure 5.2. The three chambers of Blade Cave containing archaeological material. The letters refer to Zones described in the text.

climbs up to a fifteen-meter-high balcony, which was a focus for ancient human activity.

To facilitate the documentation of artifacts, we subdivided rooms into zones around artifact concentrations. Chamber 1 contains Zones A, B, C, and G; Chamber 2 is divided into Zones D, E, and F; and Zones H, I, and J are in Chamber 3.

Chamber 1

Chamber 1, as noted above, is divided into four zones: A, B, C, and G (Figure 5.3). Because of the complexity of the deposits, Zone C is subdivided into areas.

Zone A

Zone A measures 2.5 meters × 1.5 meters, with the floor sloping gently downward toward the entrance (Figure 5.4). There is some evidence of periodic flowing water and movement of sediments. The sediment in this zone contains a black soot deposit.

Human skeletal remains are spread over much of this zone and extend toward a boulder in Zone B. All the skulls are fragmentary, but there appear to be enough skull fragments to make up at least four individuals. Although most of the bones littering the surface are disarticulated, the remains of a single individual in a somewhat less disturbed condition were found along the cave wall. Robert S. Hemperly, DDS (personal communication, 1985) describes an anterior mandible fragment as being that of a large, robust individual of about thirty years of age. We noted seven intact long bones, but these were in poor condition. Along the border with Zones B and C, twenty phalanges were revealed in a fifty-centimeter-square section of floor where the sediment is being eroded by water dripping from the ceiling. The scattered positions of the bones may indicate that they were disturbed by animals or water activity. Along the cave wall are a number of ceramic sherds, the largest of which is a broken, two-centimeter-deep, pie pan–shaped gray bowl with a twenty-two-centimeter rim diameter.

Zone B

Zone B is a 2-meter × 2.5-meter area defined around a large, elongated boulder located in the middle of the floor (see Figure 5.3). We found four chert bifaces on the floor around the boulder. Among these was a specimen measuring eighteen centimeters in length and six centimeters in width and made from dark

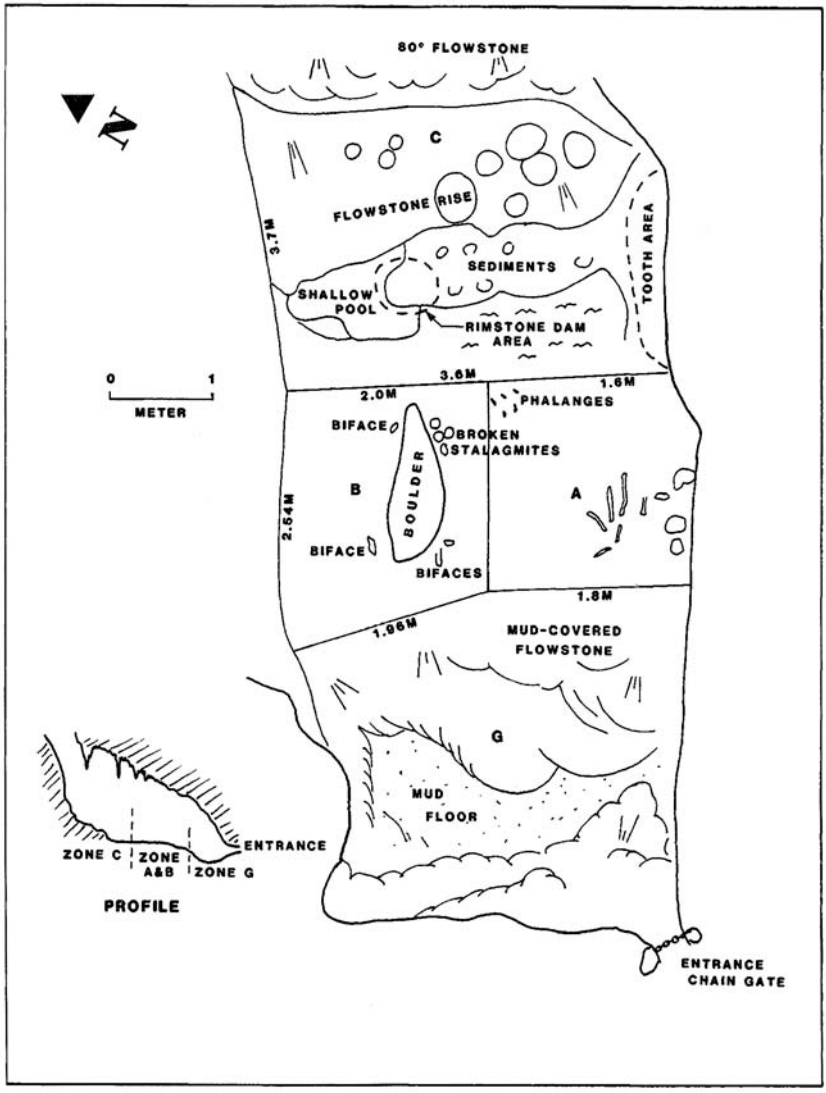


Figure 5.3. Plan view of Chamber 1, with the locations of Zones A, B, C, and G.

chert. This may be a trade item, since bifaces of dark brown chert are known to come from east of this region (Marcus Winter, personal communication, 1987).

Leaning against the base of the boulder is a cache of broken stalagmites and two small, gray vessels (Figure 5.5). Most of the stalagmites are about sixty centimeters long and fifteen centimeters wide. Two slate fragments have been delicately set perpendicular to each other on a thin ledge on the boulder. The

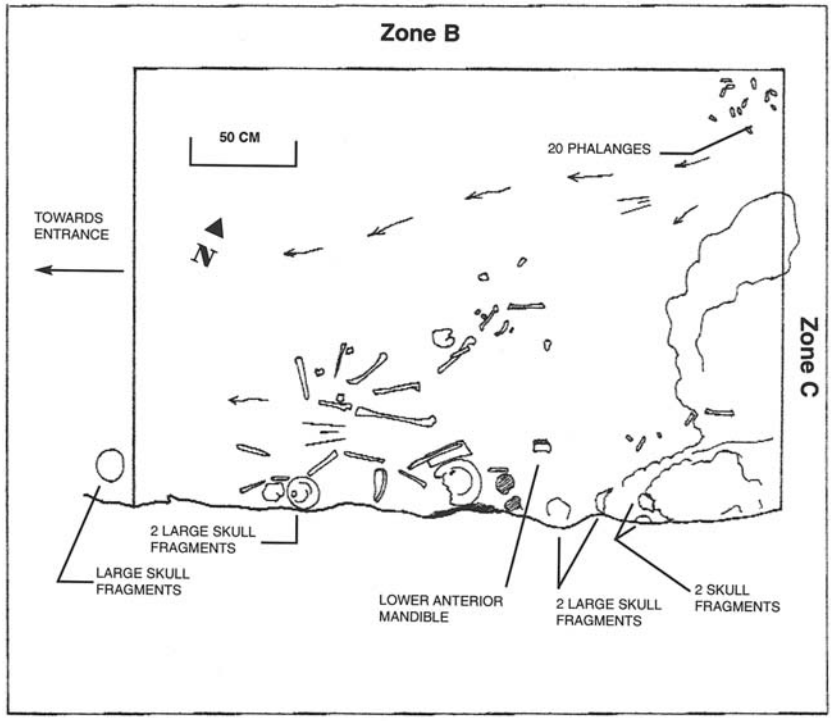


Figure 5.4. Distribution map of bones and artifacts in Chamber 1, Zone A.

Figure 5.5. Two small vessels and broken stalagmites found at the base of the boulder in Chamber 1, Zone B.

slates are dark gray and measure approximately six centimeters in diameter (two similar slates may be found in Zone C and another in Chamber 2, Zone E). In addition, a dog mandible has been placed on the boulder.

On the floor between the boulder and the skeletal remains in Zone A is a scatter of beads. The beads vary in size and shape and are made of jade, coral, and shell, with jade being the most common. Finally, a broken cream-colored jar sits on a flowstone mass along the cave wall. Half of the vessel, from rim to base, remains.

Zone C

Zone C, located at the western end of Chamber 1, is slightly over 3.5 meters square. A cache of forty-three ceramic vessels and other artifacts was deposited against the western wall (Figure 5.6). The artifacts are sitting on a raised area formed by rimstone dams and flowstone which rises as it approaches the cave wall (see Figure 5.3).

AREA 1

Area 1 contains a small rimstone pool of water formed by an extension of the flowstone rise (see area labeled "Rimstone Dam Area" in Figure 5.3). Jade, shell, and coral beads cover the bottom of the pool. Similar beads, varying in size and shape, are densely scattered on a flowstone peninsula (labeled "rise" on Figure 5.3). Bones of small animals occur frequently, including several mandibles similar to those of a small dog. Six broken stalagmites, each measuring about sixty centimeters in length and fifteen centimeters in width (Figure 5.6, A–F), have been placed on the flowstone peninsula.

Six ceramic vessels have been placed in this area, as well. Three of the vessels (C5, C7, and C15) are shoe-pots. Inside the shoe-pots are bones of small animals, fragments of turquoise, and stone, mostly jade, beads. The beads vary in color from cream to green to deep blue. One shoe-pot, C7, is mammiform in shape with a rim ten centimeters in diameter and seems to have been used for water catchment (Figure 5.7). Shoe-shaped vessels have also been found in the Mazatec region in the Cueva de Tenango (Winter 1984).

Vessel C14 (labeled "spiral" on Figure 5.6), a red-slipped jar, has three gouged spirals beginning at the base of the neck and extending around the vessel's body to the base. A hollow bridge connects a spout to the vessel's neck (Figure 5.8). This style of bridged spout dates the vessel to Monte Albán I in the Valley of Oaxaca sequence (Caso et al. 1967:Fig. 125A). Next to vessel C14 are two obsidian blades. There is also a ceramic disk (7 centimeters × 4.3 centimeters) in the form of a human eye. Numerous thin pieces of light-blue turquoise are scattered about this area. Several rectangular pieces measure 2 centimeters × 1.5 centi-

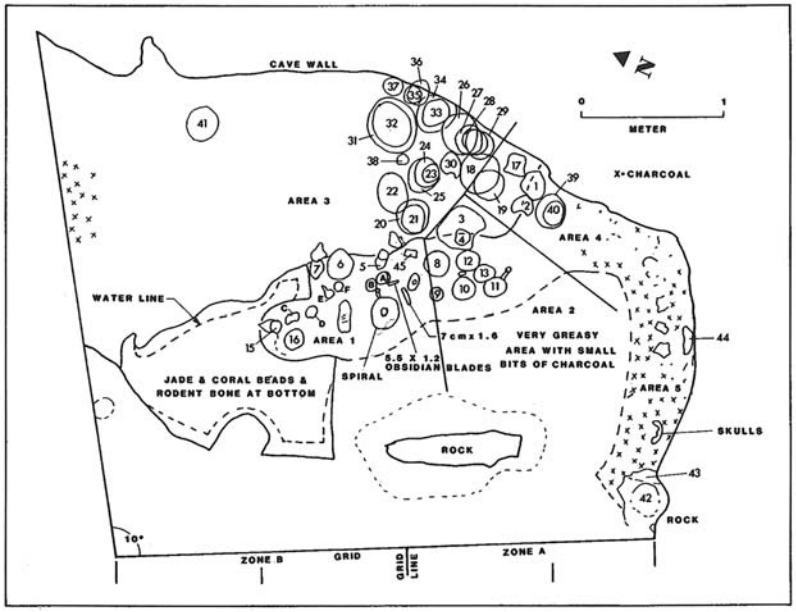
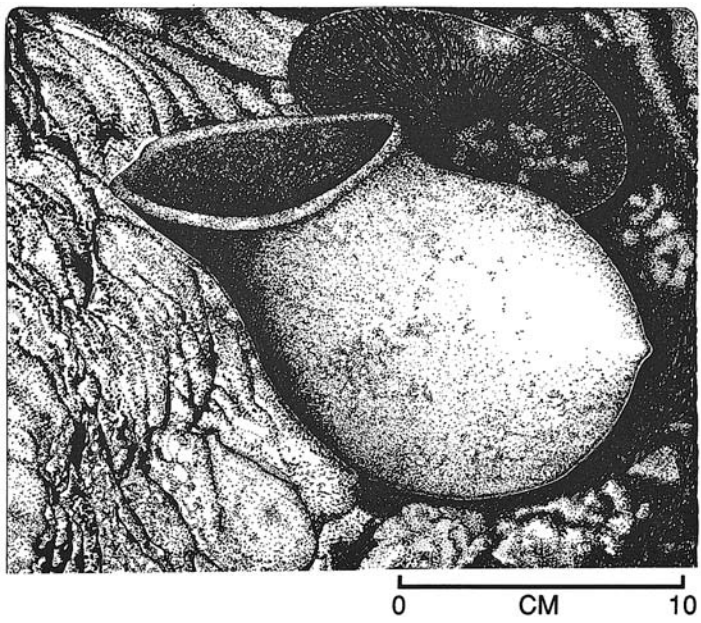


Figure 5.6. Distribution map of Chamber 1, Zone C, showing the location of artifacts and ceramic vessels (identified by number).

Figure 5.7. A shoe-pot (C7) found in Chamber 1, Zone C, Area 1 seems to have been used for water catchment.



meters, but there is considerable variability in size. The rectangles may have been inlays which, along with the eye, were used in a mosaic. Mosaics have been reported from both the Cueva de Cheve (Steele and Snavely 1997) and the Cueva de Ejutla (Moser 1975).

C16, a red bowl with a rim diameter of 13.5 centimeters, contains an array of jade beads and two carved jade plaques (Figure 5.9). One, 4 centimeters × 3 centimeters, is carved on three sides with a partial face containing one eye and one earplug. The second carved jade is a face, 2.5 centimeters × 1.5 centimeters, with recessed eyes. The piece is drilled in two places for suspension. With these lapidary objects are two fragments (5 centimeters × 4 centimeters) of sandstone. Next to this bowl is a rectangular bead (3.5 centimeters × 1 centimeter).

The sixth vessel (C6) on the rimstone dam is a gray bowl incised with a double wavy line and crosshatched motif that is repeated on both the exterior and the interior. This bowl is similar to those in Area 4 (see Figure 5.6).

AREA 2

The strip of sediments on the cave floor (see Figure 5.3), extending to the flowstone which rises to the southern wall, has been designated Area 2 (see Figure 5.6). A moderate quantity of small animal bones, canine teeth, and beads of jade, coral, and shell are visible in the mud. Eight ceramic vessels (C3, C4, C8–13), mostly dark gray, were documented in this area. Two vessels (C3 and C4), one inside of the other, sit in the center of the flowstone rise. The larger (C3) is a dark-gray bowl; C4 is a black vessel with an incised decoration. Six additional vessels, three of which are dark-gray spouted forms, are embedded in the cave sediment. All contain green and white beads.

AREA 3

Twenty ceramic plates and bowls have been placed, often in stacks, on the flowstone along the eastern wall in Area 3 (see Figure 5.6). There is little cultural debris scattered on the flowstone rise, but many of the vessels contain bones and beads. Several vessels are well-formed plates and bowls with bright red exteriors and black interiors. The largest plate in the cache, thirty-four centimeters in diameter, has a flared rim. A twenty-nine-centimeter-diameter bowl rests on the plate. There are also more crudely made, matte-finish orange plates and bowls. Where the two colors of plates and bowls are stacked among others, the orange vessels occur above the red and black vessels. The examples from Blade Cave correspond to the following Tehuacan Valley types: El Riego Gray, Quachilco Gray, El Riego Orange, and Quachilco Red. These ceramics characterize the Late Santa María and Early and Late Palo Blanco phases (MacNeish et al. 1970:102–176). Other vessels are mainly black, light brown, or light gray flat-based bowls without curved walls.

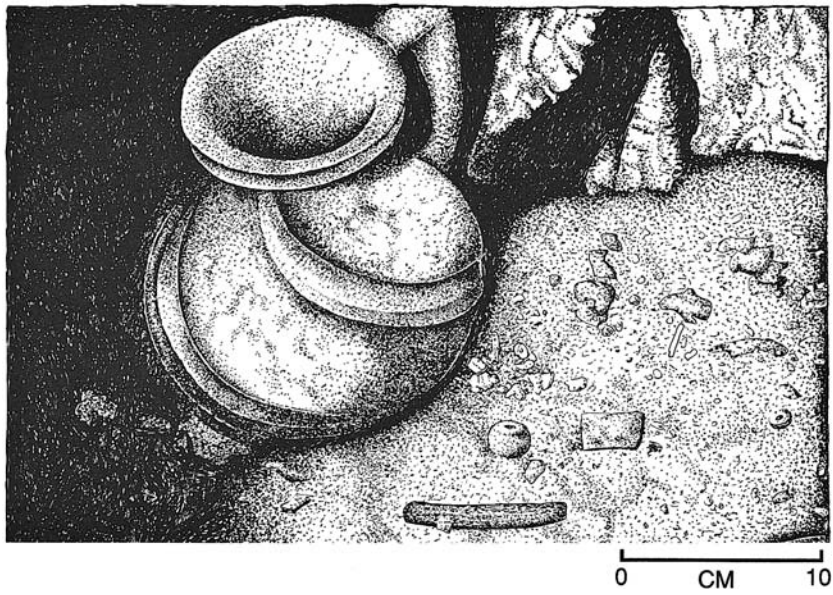
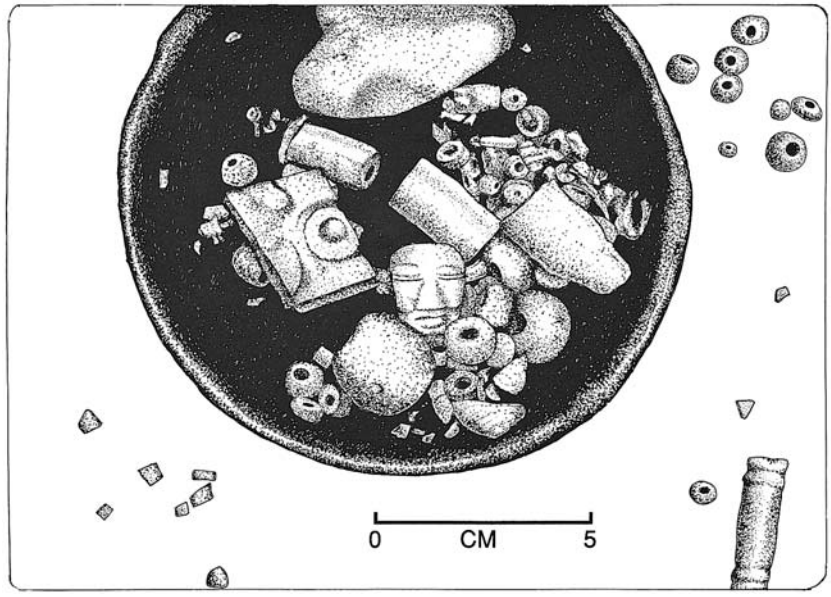


Figure 5.8. A spirally grooved vessel (C14) was found in association with an obsidian blade, various stone beads, and rectangular mosaic fragments in Chamber 1, Zone C, Area 1.

Figure 5.9. Vessel C16 with associated beads and carved jade, Chamber 1, Zone C, Area 1.



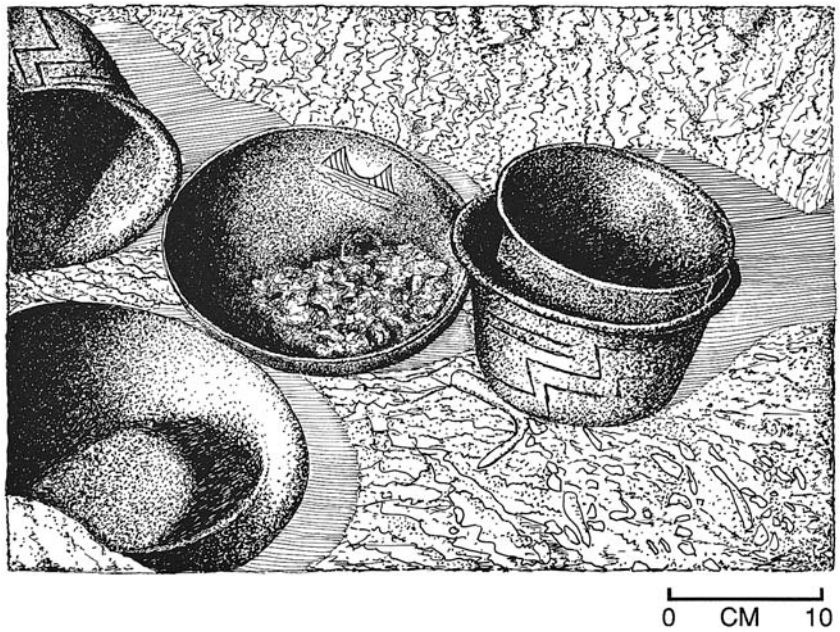


Figure 5.10. Cylindrical vessels C17, C39, and C40, in Chamber 1, Zone C, Area 4, contain step-fret motifs; vessel C1 has a double triangle incision.

AREA 4

Area 4 is located to the south of Area 3. Seven vessels (C1, C2, C17–19, C39, C40) were recorded against the cave wall at the contact of the flowstone with the floor sediments (see Figure 5.6). Some of the vessels have settled into the mud. Five of these are light gray vessels, several with incising (Figure 5.10). Grayware occurs in various periods of the Tehuacan Valley and the Valley of Oaxaca sequences. Only a few jade beads, bones, or other cultural items were noted lying on the floor by the vessels.

Bowl C1 has an incised decoration consisting of two crosshatched triangles. Below the triangles are three parallel lines that enclose a fourth, wavy, line. The decoration, similar to one on vessel C6 in Area 1, matches decorations found Quachilco Gray (MacNeish et al. 1970:Fig. 71) and El Riego Gray (MacNeish et al. 1970:Figs. 91 and 92) from the Tehuacan Valley. This would suggest a Late Santa María or Early Palo Blanco phase date for the Blade Cave vessels. Vessels C17 and C39 have incised step-fret motifs with approximately parallel double lines that encircle the vessel. The step-fret motif on Vessels C17 and C39 is also present in the Santa María and Palo Blanco phases in the Tehuacan Valley (MacNeish et al. 1970:Figs. 70 and 91) and in Monte Albán II, II–IIIa, and

Table 5.1. Correlation of Archaeological Phases for the Sierra Mazateca and Surrounding Areas

	Phase	Phase	Phase
Year	*Sierra Mazateca (Oaxaca)*	*Valley of Oaxaca (Oaxaca)*	*Tehuacan Valley (Puebla)*
AD 1521	Late City-State		
1400	(Cueva de Tenango)		
1300			
1250			
1200	Early City-State	Monte Albán V	Venta Salada
1100	(Blade Cave)		
1000			
900			
800			
750			
700	Late Urban	Monte Albán IIIb–IV	Palo Blanco
	Eloxochitlán		
600			
500		Monte Albán IIIa	
400			
300		Transitional II–IIIa	
200	Early Urban	Monte Albán II	
100	(Blade Cave)		
1		Monte Albán I	
100 BC			
200			
300			
400			Santa María
500			
600			
700			

IIIa in the Valley of Oaxaca (Caso et al. 1967:Figs. 209B, 251D, and 270D) (see Table 5.1).

AREA 5

The human remains noted in Zone A extend into Zone C, Area 5 (see Figure 5.6). Here we recorded four cranial fragments, a few long bones, and twenty-eight human teeth (see Figure 5.3) . According to Hemperly (personal communication, 1985), the teeth may belong to as many as eight individuals: (1) one

with white teeth; (2) one whose teeth have an orange pigmentation; (3) another whose teeth have dark pigmentation; (4) a person with pitted teeth (a genetic or pathologic developmental defect); (5) someone with large teeth; (6 and 7) at least two children under six years of age; and (8) a child over six years of age. There are no significant cavities in any of the teeth. A trauma-inflicted groove was noted on one tooth, which may have been caused by an accident or by deliberate filing. It is possible that more teeth are concealed by the cave floor sediments.

One gray vessel, C42, has been set along the southern wall. The form of the rim indicates it may have contained a spout, but the handle is missing. Two large fragments of red vessels, C43 and C44, are almost completely buried in the sediment. The visible portions, however, suggest that they probably belong to a single broken vessel.

Zone G

Zone G was defined as the area between the entrance to Chamber I and the border with Zones A and B (see Figure 5.3). The floor of the chamber slopes at a ten-degree angle, causing water to flow intermittently toward the entrance. Water has deposited sediment and a few human long bones in this zone. No ceramic or stone artifacts were observed.

Chamber 2

Zone D

Zone D serves as a narrow passageway leading from Zone C in Chamber 1 to Zone E in Chamber 2. The passage is flanked by floor-to-ceiling columns. Half of a dark-gray jar sits on one column. Two rimstone dams encircle small pools. In the second pool are six sherds of an orange monochrome vessel. A black obsidian projectile point about 3.5 centimeters in length was observed in a narrow space along the side of the passage but could not be reached.

Zone E

This zone was defined around a small room approximately 3.75 meters × 3 meters. The floor of this room sits about one meter below that of Zone D and is covered with sediment. In the middle of the entry to the room is a 1.5-meter-tall stalagmite that has been modified to resemble a face (Figure 5.11). From the top of the stalagmite to the nose measures one-half meter. We named the

stalagmite the Guardian because of its watchful appearance. Five vessels were placed along its base and staggered toward the cave wall (Figure 5.12).

An empty black hemispherical bowl (1) appears to have a hole punched through the bottom. A sherd of an orange spout is resting between vessels E1 and E2, but the rest of this vessel was not located (sherds—rather than whole vessels—are quite rare in Blade Cave). Next to the bowl is a black *florero* (E2), or vase with a double-bridged spout. One bridge connects to the neck and the other to the *florero*'s round base. Inside are at least twelve gastropod shells and several jade beads. A black tripod bowl (E3) with square supports sits beside the *florero.* The bowl contains charcoal and several small jade beads as well as mud.

Vessel E4 is an orange animal effigy vessel (Figure 5.13). The single vertical spout has a bridge that connects to the back of the animal's head. Much of the top of the vessel is broken and missing. It contains an obsidian blade and round jade and bone beads.

The fifth vessel (E5) is small, seven centimeters in diameter, with one vertical spout, which is bridged below its rim. This black vessel contains one obsidian blade and at least two bone beads. On the cave floor directly behind this vessel is a very flat, three-centimeter-square jade disk, which has two holes drilled for suspension.

Leaning against the front of the Guardian are four broken stalagmites standing on end. They measure 8 centimeters to 10 centimeters long and 4 centimeters to 7 centimeters in width. A 10 centimeter × 2 centimeter obsidian blade was found close to a semirectangular (10 centimeters × 13.75 centimeters) slate pallet about 2 meters from the cave wall. Hundreds of pieces of turquoise are scattered about the muddy floor. They are rectangular, generally 1 centimeter × 2 centimeters, and vary in color from white to light blue-green. In addition, bones of small animals are mixed with a dense scattering of jade, coral, and shell beads on the floor. A 5-centimeter-deep hole in the sediments formed by ceiling drip-water revealed more beads in the sediment. Charcoal is also present on the floor. A small pile of rocks with an oyster shell sitting on one of the rocks sits forty centimeters from the north wall.

Twenty-five centimeters in front of the Guardian is a second altered stalagmite. It has been broken or perhaps sawed off at 39 centimeters above the floor. A grayish-white chert projectile point (6 centimeters × 3.5 centimeters) has been placed on top of the stalagmite.

Zone F

About three meters past the Guardian, the chamber appears to terminate. There is, however, a squeeze through the flowstone to a small passage, which is desig-

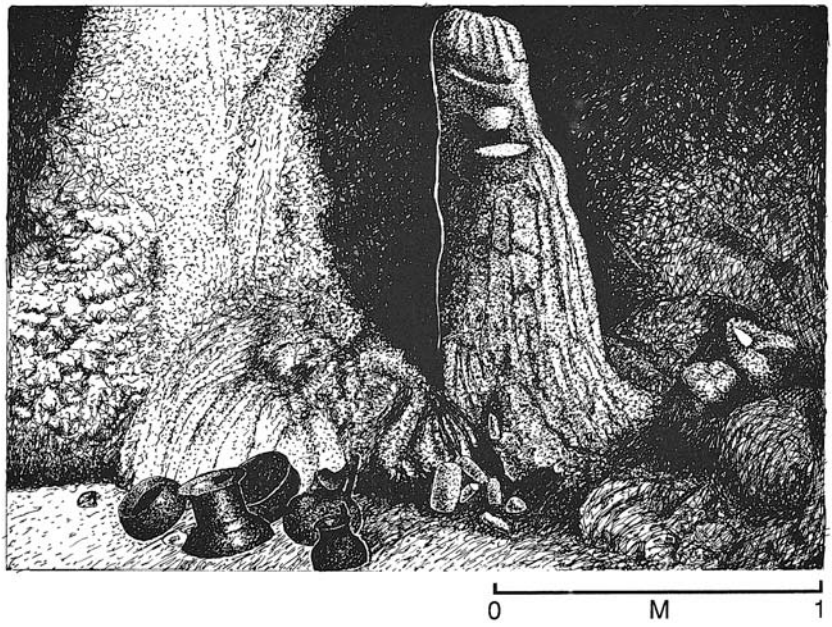
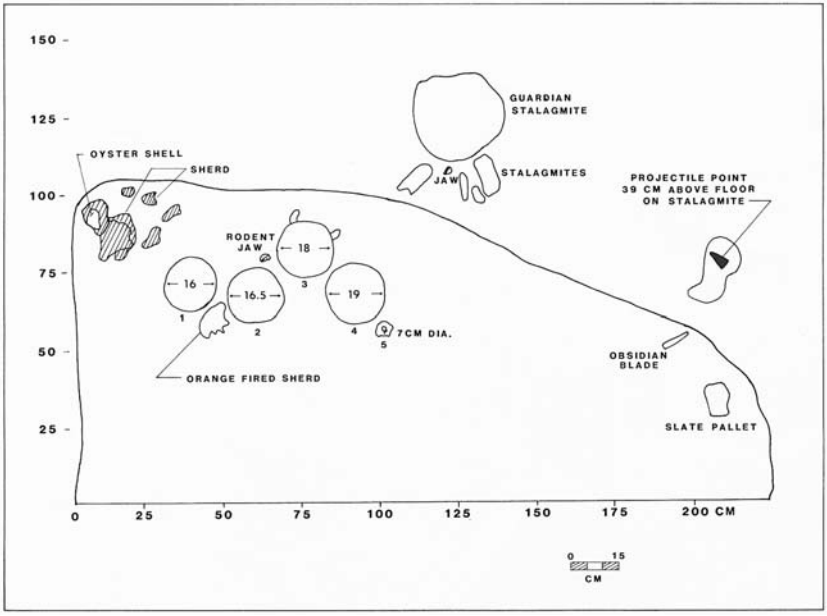


Figure 5.11. The Guardian, a modified stalagmite, was found in Chamber 2, Zone E with five ceramic vessels and other offerings.

Figure 5.12. Distribution map of Zone E in Chamber 2, with the location of artifacts and speleothems.



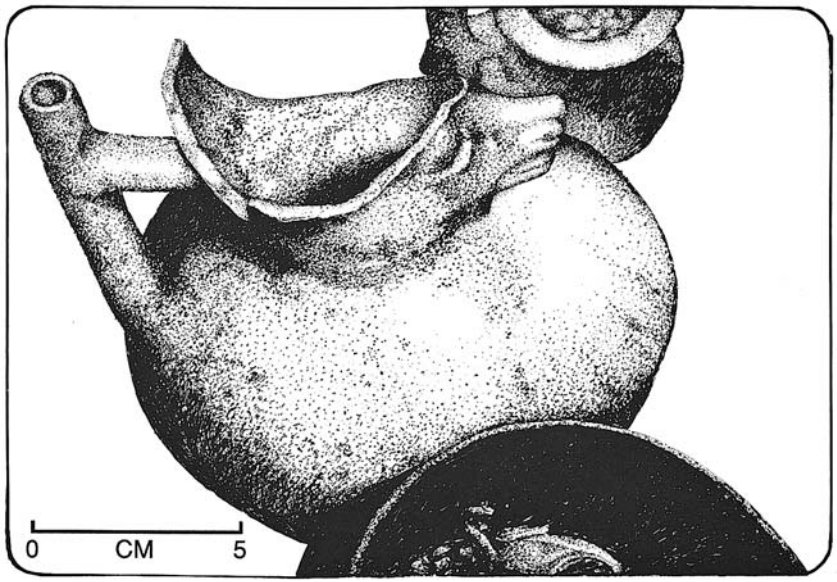


Figure 5.13. Vessel E4, a spouted animal effigy vessel found in Chamber 2, Zone E.

nated Zone F. A red vessel with a twisted spiral handle is located in this room. There are about fifty dark-green jade beads inside it, and also a small figurine that is drilled for suspension. Farther into the passage were the skull and bones of a small animal, the size of a dog. On a ledge was a worked speleothem pendant with a face carved in relief. Two small holes were drilled on either side of the forehead. Two speleothem beads, three centimeters in length, were also found in this passage. Fashioned from sections of soda straw formations, these naturally hollow tubes had the ends ground smooth.

Chamber III

Zone H

Chamber III is entered by climbing the northern wall in Zone E and then dropping into a room that is nearly equal in elevation to Zone E. The Zone E chert projectile point may be a directional indicator, pointing toward the entry to Zone H. In the middle of the room is a pile of naturally cemented breakdown boulders. A number of red coral pendants (4 centimeters × 2 centimeters) and red coral beads (5 centimeters in diameter) were found on the boulders.

Zone I

A narrow, upward sloping passage leads off the northern end of Chamber 3. In this narrow section two worked *Olivia* shells were found two meters apart. The passage continues to climb and doubles back on itself. In this upper passage, a ceramic incense burner appears to have been smashed by two broken stalagmites that are lying in the midst of the sherds. I estimate the incense burner to have originally been about twenty-five centimeters tall. Elbows can be identified as protruding from the censer's sides and would have functioned as handles. The arms ended in closed fists at the central bowl of the vessel.

Continuing up the passage, a small vessel (10 centimeters × 15 centimeters) was encountered upside down on a stalagmite. The fit was snug. Two obsidian blades were also found in this section of the passage. Nearby was about half of a white shell earspool. Its original diameter would have been about 4 centimeters, with a 2.5-centimeter central hole. Jade beads were scattered throughout this area, and charcoal was abundant.

Zone J

Zone J is on a high ledge that is reached from the top of the Zone I passage. To reach the ledge, ancient visitors had to swing out over a fifteen-meter vertical drop overlooking Chamber 2. Four dark, wide-necked, spouted vessels (J1, J2, J3, and J4) were recorded. They are incised with a step-fret motif similar to that on the vessels in Zone C. To place one of the vessels on a ledge that is behind a flowstone column, someone had to have made a difficult and dangerous exposed free climb.

Another area included in Zone J is reached by squeezing through formations to a balcony overlooking the lower section of the cave. More red coral pendants and beads, similar to those in Zone H, are scattered in a 1.5-meter area close to the edge of the balcony. Since the balcony is located 15 meters directly above Zone H, it is likely that the beads and pendants spilled from this upper ledge.

Dating

Dating relies on ceramic cross-dating to sequences from the Valley of Oaxaca (Caso et al. 1967) and the Tehuacan Valley (MacNeish et al. 1970). Two of the most common vessel forms in Blade Cave are a flat-bottomed bowl without curved walls and a jar with a vertical spout connected to the vessel neck by a bridge. These forms are characteristic of the Late Formative and Classic Periods II and IIIa in the Valley of Oaxaca (Caso et al. 1967:Figs. 197A, 192A, 285D, 263E). The incised motif on vessel C1 closely resembles those

on the Quachilco Gray and El Riego Gray vessels from the Tehuacan Valley, which implies a Late Santa María phase or Early Palo Blanco phase for the Blade Cave vessel (MacNeish et al. 1970:Figs. 71, 91, 92). The step-fret incised design on vessels C17, C39, J1, J2, J3, and J4 also occurs in those two phases in the Tehuacan Valley (MacNeish et al. 1970:Figs. 70 and 91) and in Monte Albán II, II–IIIa, and IIIa in the Valley of Oaxaca (Caso et al. 1967:Figs. 209B, 251D, and 270D). Shoe-pots—C5, C7, and C15—and the effigy animal head vessel—E4—may date to the Early City-State stage. Several of the nonceramic artifact types are also common in this stage (Winter, personal communication, 1987). The Blade Cave artifacts apparently represent the early part of this stage, because there are no polychrome vessels or metal adornments. Thus, the archaeological chambers at Blade Cave contain evidence of use from the Early Urban stage (AD 1–300) through the Early City-State stage (AD 750–1250; see Table 5.1).

Interpretation of Artifacts

In our investigations at Blade Cave we have amassed an abundance of detailed contextual information on ancient Mazatec cave ritual. Ceramic vessels appear in many cases to have held perishable offerings. Frequently, items denoting wealth, such as beads and pendants of jade, stone, shell, and coral, were included in these offerings or added to the vessels later. Such items were also found strewn around the floor in utilized areas. Objects of personal adornment have been noted as being a common feature in the Maya cave artifact assemblages (Brady 1989:322). The material recovered at Chichén Itzá from the Cenote of Sacrifice, another cave feature, shows that jade was often offered individually, but also accompanied other offerings, such as plates of copal with jade beads stuck in the resin (Coggins 1992; Proskouriakoff 1974). Andrews (1970:52) reports finding jade beads strewn in the mud and ashes in different areas at Balankanche.

I have noted blood sacrifice on numerous occasions in the Mazatec and Cuicatec regions, an important aspect of contemporary cave rituals. In addition, the practice is documented in ethnographies of the Mazatec (Johnson 1939:133; Weitlaner and Hoppe 1969:520), the Cuicatec (Holland and Weitlaner 1960:392; Steele and Snavely 1997:26; Weitlaner 1969:445), the Mixe (Beals 1945:87–90, 93–94; Hoogshagen 1966:314; Lipp 1991:48–49, 144–145), the Mixtec (Ravicz and Romney 1969:373, 399), the Tepehua and the Totonac (Starr 1908:256–257), and the Zapotec (Beals 1935; Parsons 1936:43, 225, 238, 294, 411, 508). Evidence for such modern ritual activity in caves is generally in the form of remains of chickens and turkeys. In addition to chickens and turkeys, the Trique sacrifice sheep or goats (Nader 1969:413), and dog sacrifices occur in the Mixe and Zapotec regions (de la Fuente 1949:306).

Evidence of blood sacrifice is present at Blade Cave in animal remains such as dog mandibles and the bones of other small animals. It is likely that the large bifacially chipped blades found in the cave were originally hafted in wooden handles and used as knives in such sacrifices. Holland and Weitlaner (1960) found three large blades, hafted in their Pre-Hispanic handles, still being used for sacrificial purposes in the Cuicatec area in 1957. When not being used, the knives were stored in a cave.

Covarrubias (1946:189) notes that Zapotec ritual consists of making offerings of food, flowers, jade, ceramic vessels, incense, and the blood from small animals and human beings who bled themselves. Obsidian prismatic blades are generally thought to have been used in such autosacrificial rites (Brady 1989: 326–327; for detailed discussions of Maya bloodletting, see Furst 1976:182; Schele and Miller 1986:175–185). In the Valley of Oaxaca, there is evidence that the practice of bloodletting often accompanied rituals involving curing or petitions for rain or fertility dating back to the Village stage (1500–500 BC) (Winter 1989:87; for a discussion of Oaxacan bloodletting, see Flannery 1976:341–344).

Obsidian blades are often reported from cave contexts. In the Cuicatec region, obsidian blades were found scattered on the rectangular stone platform constructed in the entrance room of Cueva Cheve (Steele and Snavely 1997). Winter presumes that the obsidian blades recovered from the Late City-State stage Mazatec cave site of Cueva de Tenango were used in bloodletting rituals (1989:89). According to Winter (1984), slate pallets are thought to be blood collectors and have been found associated with prismatic blades. Thus, the presence of prismatic blades in all three Blade Cave archaeological chambers and the recovery of slate pallets in Zones B, C, and E offer strong evidence of autosacrificial bloodletting as part of the Blade Cave rituals.

Human skeletal material is abundant in the Blade Cave assemblage. It is not certain, however, what these individuals represent. Burgoa (1934a, 2:121–123) describes a tradition of cave burial in Oaxaca, and Moser (1975, 1976, 1983) has described one of the caves. While the osteological material has been disturbed by animals or water in Blade Cave, the context does not resemble the formal burials described by either Burgoa or Moser, so I am reluctant to attribute the human bones to mortuary ritual.

Discussion

While the interpretation of artifacts has focused on ritual behaviors, little has been said about the meaning of the rites or to whom they were dedicated. In order to explore these questions, cave use must be contextualized within Oaxacan culture. Caves, first of all, are seen by inhabitants as sacred places and the specific dwelling places of many supernaturals (de la Fuente 1949:265). This

makes them a focus of worship, a fact reflected in the Mixe use of the same word for church and cave shrines (Beals 1945:64). The principal deity of the earliest people at Monte Albán was the jaguar/baby-faced god of rain and lightning, who lived in a cave and who, according to Burgoa (1934a:Chap. 28, quoted in Covarrubias 1946:78–79), was the ancestor of the Zapotec rain-lightning god, Cocijo (Covarrubias 1946:153, 181–183).

Another widespread belief revolves around a figure often called the Earth Lord, who is thought of as the *dueño,* or owner, of the animals, the land, and its fertility. Mitla Zapotec deities include the "owners" of the caves (Parsons 1936:210, 214–215, 509–510). In the Cuicatec region, most beliefs focus on a mystical figure called the Señor del Cerro, who dwells in Cerro Cheve. The souls of curers are said to go to the mountain and its caves (Weitlaner 1969:444–446). The Mazatec also fear the Masters of the Earth, who live underground (Johnson 1939:136–137).

The petitions for rain are among the most important ceremonies conducted in caves. In order to make rain, the Mazatec specialist will pray in a cave. If it thunders as he enters, the spirits are angry. It is said that thunder is controlled by little old men. As part of the ritual the Mazatec will sprinkle water so it will rain (Johnson 1939:136–137). The most important Mixtec ritual is also directed toward the invocation of rain (Ravicz and Romney 1969:373, 394). The Mixe, like other groups, also associate rain with caves (Beals 1945:68, 90, 94; Hoogshagen 1966:316; Lipp 1991:49). The Zapotec believe that rain is formed deep in caves in the earth (de la Fuente 1949:265–266). Among the Ichcatec, if the *dios de la lluvia* (god of rain) has been given offerings of food, fowl, flowers, and incense, which should be buried, the next day a white cloud will appear at dawn and it will rain (Hoppe and Weitlaner 1969:503).

The foregoing has focused on the importance of caves, earth, and water because the investigators believe that the ceremonies conducted in Blade Cave were primarily petitions for rain. This interpretation was suggested by the discovery of the Guardian in Zone E of Chamber 2. Modified or sculpted stalagmites have been reported in both ethnohistorical and ethnographic contexts as being directly associated with rain.

The seventeenth-century Dominican chronicler Francisco de Burgoa (1934b: 478–481) reported an incident between a priest, Father Jerónimo Abrego, and Chocho caciques. Father Jerónimo told how the Lord withheld rain because of sin, to impress on the native population the need to come to the Lord every day to ask for daily bread. A cacique answered, "My father, this may well happen in other pueblos, but here we have a very obliging god of the rains and we try to serve him in all that he asks of us, and for that he usually blesses us with sufficient water and extra seeds for our sustenance." When the priest asked, "Where do you have this god?" the chief replied that his temple was in a great cave.

Father Abrego went to the cave and destroyed everything, breaking the idols made from altered stalagmites. The priest converted the people when the gods failed to kill the priest (Burgoa 1934b:478–481).

Burgoa (1934a, 1:318A) relates another, almost identical, incident involving a Father Benito Hernández and mentions such idols as being in other caves (Burgoa 1934a, 2:122). In 1652, four Mixtec men were accused of having entered a cave near their community center to engage in traditional idolatrous acts. One man was said to have gone into the cave in the company of the other three with wax candles, copal incense, and fire and to have delivered a prayer for rain before a carved-stone idol, which is likely to have been a stalagmite (Spores 1984:152–153).

Perhaps to accommodate the Catholic priests, on New Year's Day in 1889, in the Mixe region, people entered a cave to venerate two stalagmites considered to be Saints Peter and Paul. Nevertheless, these Mixe brought tamales and turkeys, leaving the heads there and spattering the blood around the stones (Miller and Villa Rojas 1956:211).

Caves are still considered sacred places throughout the Mixteca Alta. Ravicz and Romney note that among the Mixtec there is "a widespread association of idol and hill or cave with a settlement . . . In the Alta, one or more elders officiate in a cave, making offerings on altars of natural stone before a stalagmite or carved stone representing Sabi (Savi, Sawi), Rain" (1969:394). Inside one cave there is a stalagmite called the Archbishop, which is an object of veneration (Byland and Pohl 1994:202–203). The connection between these stalagmite-idols and rain is also found in the Mixe area. Lipp (1991:49) notes, "Some men who had removed one of these artifacts [idol] from a cave became frightened on the road when it began to thunder tumultuously and so returned the piece to its proper place. The same thing occurred to another man who believed he was being chased by red thunder when returning from a mountain with an idol he had found there . . . When another person brought an idol down from a mountain, thunder and rain began so furiously that the entire village became frightened."

Perhaps the most convincing demonstration of the relationship between cave, speleothems, and rain comes, ironically, from outside of a cave. Schultze Jena (1938:65) observed a stone shaft with sculpted human features, which was called Sáwi. Packed around the shaft were small stones that represented rain. The shaft was enclosed within a constructed rock enclosure which was called Wé'e Sáwi, House of Rain. Monaghan (1987:420–421) notes that this term refers to particular caves that are rain shrines. Thus, even outside of the cave, rain is invoked using very clear cave and stalagmite symbolism.

The above descriptions appear to offer solid data on which to base an interpretation of the Guardian figure. The sources seem to suggest that the figure represented a rain deity and, therefore, that the ceremonies within Blade Cave

were petitions for rain. Furthermore, I suspect that Blade Cave functioned very specifically as a Mazatec equivalent of the Mixtec *ve'i save,* "house of rain" or "rain shrine." Modern Mixtec rain shrines are located in caves that frequently contain pools of fresh, pure water. Rain shrines are damp inside, even at the height of the dry season, and the people say that the drops of water that fall from the ceiling of the cave are "raindrops" (Monaghan 1995:107). Both the wet condition of the cave and the intensity of utilization that has been documented here suggest that Blade Cave functioned as this important type of site.

Conclusions

The harsh environmental conditions surrounding the cave, including the steepness and rockiness of the climb to reach it along with the perilous drop into many cave entrances, means that visiting the site was no casual affair. The seasonal winds, rains, mud, and swollen streams for half the year would have presented the same challenges to the Pre-Hispanic traveler as they do today. Yet Blade Cave presents abundant evidence of frequent utilization. This utilization appears to date from the Early Urban stage (AD 1–300) and during the Early City-State stage (AD 750–1250).

The use of stalagmites with pecked faces to represent rain deities has been so well documented in Oaxaca that there can be little doubt that this is what the Guardian figure at Blade Cave is supposed to represent. As I have argued, this figure provides the evidence for what I consider to be the dominant orientation toward rain ceremonies. However, as Ravicz and Romney suggest in the ethnographic context, communities strongly identify with these idols. Since these "houses of rain" are community focuses, it is quite likely that Blade Cave played an important role in the politico-religious life of its community. The presence of jade, turquoise, ceramic vessels, obsidian blades, coral beads, *Olive* shells, and the remains of what may have been elaborate mosaics suggests elite-level participation in, and therefore direction of, rituals in Blade Cave.

It is unfortunate that resources did not permit us to attempt to locate the urban center to which Blade Cave was attached. If a second expedition can be mounted, the clarification of the political affiliation would be a high priority.

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CHAPTER 6

Sacred Caves and Rituals from the Northern Mixteca of Oaxaca, Mexico: New Revelations

CARLOS RINCÓN MAUTNER

Introduction

The rugged landscape of the Mixteca in western Oaxaca, Mexico, consists of uplifted limestone blocks capped with volcanic tuffs that enclose a number of sedimentary basins. Over the ages, flowing water has sculpted deep canyons and numerous caves and caverns. Some of these caves are truly spectacular in terms of size and the antiquity of use by humans. A great number of small caves and rock shelters were also formed as running water undercut softer deposits, namely, layers of conglomerates and welded tuffs along the contacts of faulted limestone blocks.

The subterranean enclosed areas, or chambers, of caves and caverns vary greatly in size. In some cases, they measure kilometers in length, while others are nothing more than shallow depressions a few meters in depth. Rock overhangs along the area's deeply incised streams also present cavelike features and are decorated with paintings that suggest they were used for ceremonial purposes.

The purpose of this chapter is to present a context for understanding the ritual use of caves in the Mixteca by referring to recent discoveries in the Coixtlahuaca Basin. This basin occupies the northernmost section of the Mixteca Alta in the mountainous region known as the Sierra Madre del Sur (Figure 6.1). One of these caves provides a unique opportunity to understand the role that landforms seem to have played in the cosmology and religion of the region. I draw on colonial-period documentation, Pre- and Post-Hispanic codices, and artifactual materials found in caves, including paintings on walls, to make inferences about the ancient cave rituals that were performed.

Owing to their great numbers and to the very antiquity of the tradition, caves figure prominently in the origin, traditions, and ritual lives of the Mixteca's inhabitants: the Chocho-Popoloca, the Ixcatec, and the Mixtec. As is the case

Figure 6.1. The Northern Mixteca and Coixtlahuaca Basin.

throughout Mesoamerica, the Pre-Hispanic histories of this broad cultural region's indigenous groups all point to caves as places of emergence for the gods, the nobility, and the people. Caves were also used for ancestor worship, rain propitiation and prognostication, vision quests, and consultation with supernatural beings as petitioners sought to affect their fate or the outcome of events. After

agriculture became established as the principal subsistence strategy, cave rituals associated with rain propitiation became strongly rooted in areas like the Mixteca, where rainfall is seasonal, and especially where it presents extreme interannual variability (Figure 6.2).

Numerous cave cults flourished throughout the highlands on the eve of the Spanish conquest. References to the prevalence and significance of caves as places of worship are found in the codices and in the written accounts of the colonial Spanish from the sixteenth to the eighteenth centuries. The Pre-Hispanic rituals of the Mixteca Alta, however, were not as well documented by the Spaniards as they were for Central Mexico. Nevertheless, some of the extant documentary sources refer to several of the better-known cave-shrines of the Mixteca Alta. The codices provide simplified views of what appear to be cave ceremonies (Figure 6.3). These sources usually portray one elite personage making an offering, although the nature, circumstances, or purpose for which the rituals were carried out is somewhat unclear. Colonial-period reports portray cave rituals as mysterious, pagan cults for devil worship that took place in remote locations, far from villages and their churches. Ritual activities not related to the Catholic Church necessarily had to be performed secretly, since the entire community was expected to congregate for catechism and mass and convincingly demonstrate that all its members embraced Christianity. Few references indicate why the rituals were performed; instead, they focus on attempts to eradicate them through Christian indoctrination and persecution of those practicing them.

Understanding Cave Power

Caves and mountains constitute points of reference along the horizon that are used in demarcating and asserting a community's dominion over its territory. Throughout Mesoamerica, temples or pyramids were often constructed on or near these powerful landforms, and settlement configuration was influenced by their presence (Brady 1997; Heyden 1976). The community enclave, including its mountains and caves, forms a sacred conceptual unit that is honored and upheld by its loyal inhabitants (Rincón Mautner 1997:130). Ravicz and Romney (1969:394) report that there is still a "widespread association of idol, hill or cave with a settlement" for the Mixtec, with supernatural power mostly concentrated in promontory features. Indigenous people have long sought divine intervention by contacting supernaturals and ancestors at these nodal, isolated points in the landscape. Such places constitute true sacred centers, close to the divine and not so accessible as to be used daily (Carmagnani 1988:26, 30–31). To the ancient and modern Chocho, Ixcatec (Rincón Mautner 1996b, 1997, 1999) and Mix-

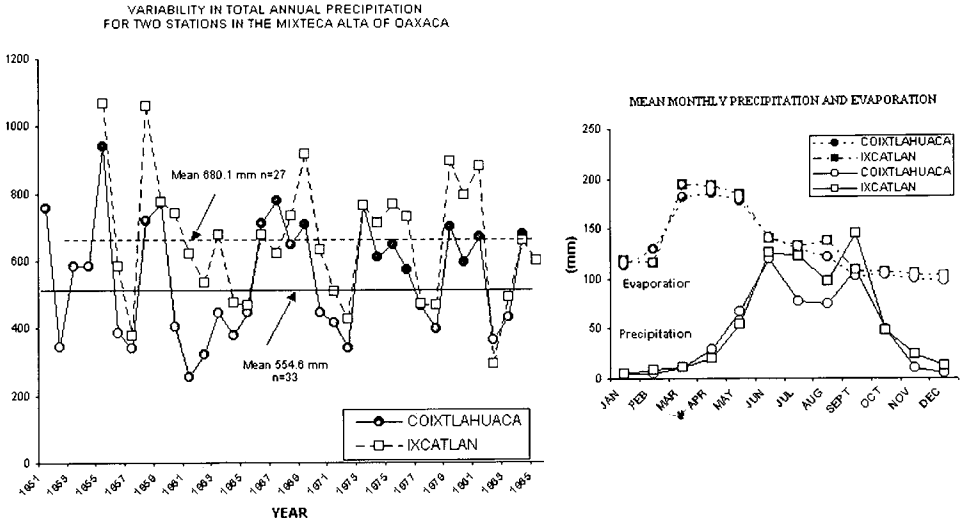
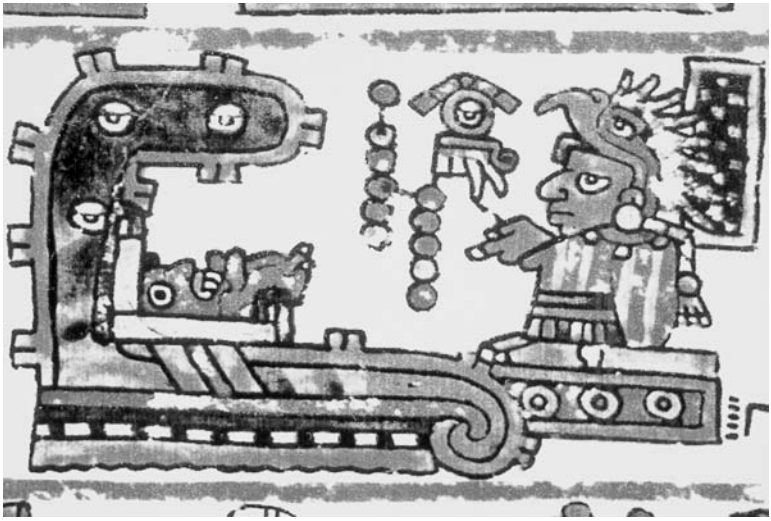


Figure 6.2. Oscillations in total annual precipitation and seasonal distribution of rainfall and evaporation rates for two stations in the Coixtlahuaca Basin. Calculations based on Comisión del Papaloapan (1951–1985).

Figure 6.3. Lord 11 Rain, seated at the entrance to a cave, makes a request before reclining *ñuhu* figure in Codex Bodley. The Bodleian Library, Oxford. MS Mex D.I. Facsimile reproduction courtesy Sociedad Mexicana de Antropología, Mexico City.



tec (Ravicz and Romney 1969; Spores 1983:343; Winter 1989:87–89), caves served and serve as portals through which to summon spirits, supernaturals, and natural forces like the wind and the rain.

Historical sources mention that since at least the Late Postclassic Period (AD 1250–1520) the Mixteca has been famous for its powerful religious shrines. Its caves and oracles were visited and consulted even by peoples living far from the region (González Licón and Márquez Morfín 1994; Martínez 1991:225; Spores 1967:25–27, 179; Spores 1983:344; Spores 1984:144–145, 152–153; Vázquez de Espinosa 1944:153). Yet, as this chapter will demonstrate, the evidence for ritual use of caves in this region is much older. Idols kept in temples, as well as the stalagmites found in caves, were revered for their powerful oracular-divinatory functions; they were believed to accurately foretell the future or provide native curers with the power to heal disease (Dahlgren 1979:313–314; Spores 1984: 150–152). Even ancient rock paintings found on a cave's walls were believed to have been drawn by the deities that inhabited them. For instance, in 1501, in a cave near Coixtlahuaca, the "Devil" foretold the arrival of the Spanish, pictured on horseback together with chickens from Castille, some seventeen years before their arrival (Martínez 1991:225). Moctezuma II is said to have sent a delegation to consult the great oracle at Achiutla, in all likelihood a cave, to discover the purpose of the Spaniards' coming and to foresee the fate that awaited his people (Burgoa 1934a:276–277).

In his late-seventeenth-century chronicle, the Dominican Burgoa (1934b: 337–341) refers to several cave shrines that the first missionaries of his order encountered in the previous century, when they began to convert the people of the Mixteca Alta to Christianity. One of these caves was located in the region of the central Mixteca Alta near Chalcatongo, a village known in Mixtec as Ñuu Ndaya, which translates as "Land of the Dead." This Mixtec name may refer to the large cave on the mountain of Cervatillos that was a royal necropolis, the final resting place for rulers of the important lineage of Tilantongo and other places. This cave was probably an ossuary where the relict bundles of the kings were deposited. It is believed to have been completely destroyed in the sixteenth century by Benito Hernández, one of the Dominican missionaries working in the area. Several scholars have posited that this cave is represented in the Codices Bodley, Zouche-Nuttall, and Colombino as a temple with a skull and crossbones on the roof (Byland and Pohl 1994; Jansen 1982:249; Jansen and Pérez Jiménez 2000:117–120; Pohl 1994). A priestess named 9 Grass presided here and was consulted by members of the nobility. The oracle and priestess seem to have played an important role in mediating and ending factional disputes, either by reducing political tension through arranged marriages or by encouraging warfare. Jansen and Pérez Jiménez (2000:119) state that the cave's location remains unknown.

Another powerful cave is located at Cahua Laki, or Devil's Rock, along the high cliffs that surround Apoala, a Mixtec-speaking village in the eastern Mixteca Alta. A flying snake penetrated this rocky outcrop (Jansen 1982:104), creating a cave approximately fifty meters in depth. The cave is also known as the Cave of the Monkey That Frightens because, from a distance, the large stalagmite in its interior resembles an anthropomorphic figure (López García 1997:278). This cave is believed to have been inhabited by the ancestors of Apoala's residents when they emerged from the tree at creation. Classic- and Postclassic Period potsherds and a few intact vessels have been found inside the cave (Jansen 1982:106). One of the legends mentions that newborn children disappeared at the cave, so the priests blessed it and placed crosses at its entrance (López García 1997:278).

Despite extensive acculturation, caves continue to be used for ritual purposes by communities throughout the Mixteca. As in ancient times, all space is believed to belong to a deity; its use by the community is validated by periodic reciprocity in the form of offerings and sacrifice. Thus, ritual ceremonies must be performed in a cave to propitiate its "owner." These deities and forces are still believed to control occurrences on the earth's surface.[1] For instance, many of the rituals practiced in caves focus on rain prognostication and are related to the agricultural cycle (Broda 1991:465–467; Grigsby 1986; Ravicz and Romney 1969:394; Spores 1983:344). Petitioners seeking divine intervention approach the hill or mountain spirits through a cave or by climbing to a mountain summit. In times of drought, masses are said on mountaintops. In the more isolated pueblos of this region, an individual's extraordinary good fortune or wealth is often regarded by other members of the community as the result of an arrangement made with the *chaneque* or *tlapizque,* names for the guardian spirit that "owns" a cave in the vicinity of their town.

Creation, Human Origins, and the Beginning of Reciprocity

Throughout Mesoamerica, the earth and naturally occurring phenomena are often explained as being imbued with animating qualities, a "life" that closely resembles the attributes observed in animals and plants. This dynamic characterization based on resemblance serves as the basis for a classification system that is rich in metaphor and composed of fluid categories that represent a continuum of shared traits. These shared characteristics are most obvious in animals, to which humans are related through the *tona* concept (Ravicz and Romney 1969:394). This concept connotes qualities of warmth and animation (i.e., becoming live and moving). Air flowing from a cave entrance is comparable to the earth's breath flowing from a giant mouth.

Many indigenous groups view the earth as an anthropomorphic female, fierce and monstrous in appearance with avian and reptilian attributes. One of the surviving Tolteca-Chichimeca traditions records how, at the time of creation, the earth came to be. The Earth Goddess was brought down from heaven and tied down over the primeval waters by two gods, Quetzalcoatl and Tezcatlipoca, who had transformed themselves into giant serpents (Garibay 1985:108). They squeezed the goddess with such force that they split her in two and made the earth from her back. In order to make up for the injury and suffering she had endured, all of the other gods descended from heaven to console her, but decreed that all food necessary for human sustenance must flow from her. In order to make this possible, they made trees, flowers, and herbs from her hair; short grasses and flowers from her skin; pools, springs, and small caves from her eyes; rivers and caverns from her mouth; and valleys and mountains from her nose. The goddess cried at night, craving to eat the hearts of men. She would not stop wailing unless she was fed and would give no fruit unless she was soaked with the blood of men. This account refers to the beginning of reciprocity, whereby a portion of the goods obtained from the land—blood (life), smoke, incense, flowers, and food—has to be given back to the earth via ritual offerings. Through this exchange, humans can appease and renew their pact with the gods and restore the balance between the spaces still occupied by the divine and those in which the community is embedded (Carmagnani 1988:47–48).

The scene where the goddess is tied up by the large snakes seems to be of great relevance to the establishment of the Chocho-Popoloca in the Coixtlahuaca Basin as it is represented on many of the basin's codices or *lienzos* (colonial-period indigenous paintings on loosely woven cotton sheets) as a sacred mountain (see Figure 6.15). I will refer to this mountain again in the section on codices.

There is a belief in the Mixteca that caves are made by a supernatural creature that splits mountains and rock outcrops. This supernatural cave maker has been depicted with a turtle's carapace or the segmented abdomen of an insect holding stone knives in its hands (see Figure 6.12). This creature seems to be one of the twins mentioned in the legend compiled by García (1981:328) at Cuilapan. Both twins bear the name 9 Wind, the calendrical name given Quetzalcoatl, whose Nahuatl name also means "precious twin." According to the story, one of the twins would transform himself into a small winged serpent that would dart through the air and penetrate rock walls making a great noise (thunder). Even his name, Wind of Nine Caves, is clearly associated with caves. Like his brother, he adopted the animal figure as a sign to everyone that he had the power to transform himself. The creature can be identified as a *yahui,* which means "sorcerer" in Mixtec (Smith 1973:60–64) or a *xiuhcoatl,* which means "fire serpent" in Nahuatl (Furst 1978:61). "Sorcerer," "priest," and "shaman" may be

equivalent terms. In Apoala at certain times of year, balls of fire cross the sky late at night. These are believed to penetrate and exit the walls of the high cliffs that surround this village, passing from one rocky cliff to another (López García 1997:280). (A rare form of lightning, known by climatologists as ball lightning, is slower and its glow dimmer than other forms of lightning and could perhaps account for this phenomenon.) The attributes of this creature may have also been inspired by the firefly.

Indigenous groups like the Chocho of the Coixtlahuaca Basin shared another Tolteca-Chichimeca tradition: their ancestors originated from the paramount sacred place known as Chicomoztoc, or Seven Caves. Even the gods were born from this legendary place when a flint blade fell from heaven and struck the ground (Mendieta 1971:83). The emergence from Seven Caves is recorded on two of the Coixtlahuaca Basin's colonial-period codices: Codex Coixtlahuaca I and Codex Tlalpitepec. The Ixcatec to the northeast also recorded their origins from a cave on Codex Seler I, a lost canvas painting from the village of Santa María Ixcatlan. According to a sketch made of its general layout, there was a cave near the center with lines radiating from it (Rincón Mautner 1996b). The late-sixteenth-century report states that the name of the village was derived from the offerings of cotton left inside a "round" cave (which was called Oloztoc) during the celebration of certain ceremonies (Velázquez de Lara 1984:227). Although it provides no direction from the village, the report states that the cave was located about three leagues away. Furthermore, the villagers believed that the cave had been made by a "famous captain" who had sought to irrigate his cotton fields. I have identified the cave mentioned in the report and on the Selden Roll and other codices as the Colossal Natural Bridge (Puente Natural) on the Ndaxagua River (Río Rosario) (Rincón Mautner 1995:58; 1996a; 1999), which, it seems, was claimed by both Coixtlahuaca and Ixcatlan in the late sixteenth century. This cave will be discussed in detail in the next section.

The Abode of the Wind God: Sacred Entrance into the Coixtlahuaca Basin

The Colossal Natural Bridge is a cave with double entrances located in the extreme northern end of the Coixtlahuaca Basin. It is a tunnel which seems to have functioned as a sacred subterranean entrance into the basin (see Figure 6.1). Following the streambed up from the Xiuquila River through the tunnel, the steep canyon of this now dry watercourse opens up into a broad, well-watered valley that lies within the basin. The cave is known to the local people as the Puente Natural, or the Colossal Natural Bridge. Since a number of documentary sources (including several Coixtlahuaca codices) refer to this cave, it has

been possible to place it in cosmological, historical, and ritualistic contexts. As I will describe in the section on codex depictions, the cave-tunnel was believed to be the place where Quetzalcoatl descended from heaven. In addition, it was the entrance used both by priests bearing deity bundles and by ancestors of the principal lineage on their way to becoming lords of Coixtlahuaca. Rock art found in its interior suggests protracted ritual use. A Late Postclassic Period carved mountain lion femur found on the cave's floor provides additional insights into this important cave, its sacred nature, and its link to the deity Quetzalcoatl.

This cold, dry, and drafty cave formed in a faulted limestone block through which a stream once flowed. The name Ndaxagua, or Río Rosario, which I have given the cave, is derived from the name given to the area around the stream's headwaters where springs still flow. The limestone tunnel that formed by the undercutting of this stream is approximately 250 meters in length, 50 meters in height, and 50 meters in width. The cave-tunnel is generally oriented along an east-west axis. It has a steep grade, dropping approximately 100 meters over its length, so that its vertically elongated eastern opening is approximately 100 meters below the horizontally elongated western opening. Viewed from a promontory across and above the Xiuquila Canyon, this cave opening resembles a vulva. In contrast, the western cave entrance, as viewed from the vantage point of the Cerro Escalera, resembles an enormous, gaping maw (Figure 6.4).

Because of its orientation, shape, and two very large entrances, the Colossal Natural Bridge must have been regarded as a very special cave. Access to it is difficult, as it lies in a deep, steep canyon filled with enormous boulders; its size dwarfs the human visitor (Figure 6.5). Much of the pictorial corpus found inside the cave consists of images consonant with native views of the Underworld, a place of foreboding where sacrifices were made and visions were sought. Most of the images found along the northern wall seem to have had a divinatory purpose.

The Pictographic Record on the Cave's Walls

The anthropomorphic and animal figures, along with calendar glyphs, depicted on the walls of the Colossal Natural Bridge inform us of a ritual complex derived from an elaborate Classic and Postclassic Period cosmology. The rock art contains a number of styles that are difficult to date, though it seems reasonable to assume that they correspond to different epochs. What may be some of the earliest paintings consist of rhomboid designs and small stick figures of humans and animals. In sharp contrast are the elaborate glyphs with cartouches and bar-dot numerical notation produced during the Classic Period (AD 300–750). This formal style was in use throughout a broad area and is now recognized

Figure 6.4. Steep cliffs above the dry canyon of the Ndaxagua River frame the western entrance to the cave-tunnel. The saddle above the cave gives this landform its name—Puente Natural, Natural Bridge, because it joins the two mountains on either side, and a stream forms a tunnel below it. Photo by the author.

Figure 6.5. The western cave entrance dwarfs a man standing where the stream channel disappears into the cave just below the very large painted *Ñuiñe*-style text and life-sized sacrificial victim shown in Figure 6.10. Photo by the author.

Figure 6.6. Whirling volutes billow from the mouth of a standing representation of a shaman dressed as the Rain God or perhaps Xicani (the sacrificer) on the north wall and near the center of the cave-tunnel of Colossal Natural Bridge B. Photo by the author.

as Ñuiñe (Paddock 1965; 1966:176; 1983; 1989). Ñuiñe materials are distributed throughout the Coixtlahuaca Basin and neighboring Mixteca Baja to the north and west. In referring to Ñuiñe-style glyphs, I use the same letter designation that Zapotec glyphs from the Valley of Oaxaca receive based on the classification scheme proposed by Caso (1928, 1947) and discussed and elaborated on by Urcid (1992). These same designations have been applied to materials from Mixteca Baja Classic Period sites by Moser (1972, 1977, 1983) and Rodríguez Cano (1996:79–89).

The aforementioned sixteenth-century report describes figures with "head armor resembling duck heads" (Velázquez de Lara 1984:227–228). At least five paintings found inside the cave depict anthropomorphic figures with protruding beaklike, buccal masks (Rincón Mautner 1999:Figs. 59, 62, 64). These beaks cover only the mouths of the figures and suggest lips in the act of blowing or whistling. A reasonable interpretation would seem to be that such masks connote breath or wind. Circular lines billow out like whirls from one the largest of these figures (Figure 6.6). The buccal masks are similar to the representations of Classic Period urns from the Valley of Oaxaca and Postclassic renditions of Quetzalcoatl as Wind God in Motolinía (1979:7), Seler's (1963:2:70) interpretations of Codex Borgia, the polychrome vessel of Nochixtlan, and the works of other scholars (Nicholson 1971, 1978; Paddock 1994).

The cave's interior is cold and windy, with very strong gusts during thunderstorms. The sound of thunder and rushing water during and after a rainstorm resonates within it. The wind's strength varies seasonally as well as under highly localized weather conditions, and yet there is also a daily rhythm to wind flow. During the morning, the wind blows gently and steadily from the east through the cave and out the western entrance. As the day warms, the force of the wind, which continues to blow from the east, intensifies. By late afternoon it tends to calm; and as night approaches, the wind direction reverses, blowing from the mountains and out through the eastern opening. The changing wind direction—within the cave's interior from night to day and from season to season—as well as the depiction of figures with buccal masks support the hypothesis that this drafty tunnel was the abode of the Wind God (Rincón Mautner 1995:55–57). However, given that the cave is a passageway into the Coixtlahuaca Basin, it is interesting to note Durán's (1967:1:81) reference to Tlaloc, the Rain and Earth God, as the "Long Cave" or a subterranean road. As stated above, the report from Ixcatlan refers to the tunnel passage as having been made by a "famous captain," in all likelihood, Quetzalcoatl (Rincón Mautner 1995:58–60; 1999:Fig. 46).[2]

High on the northern wall of the cave, near its eastern opening, is a group of paintings consisting of dates and the figures of a seated personage and a full skeletonized figure (Figure 6.7; Rincón Mautner 1999:Fig. 64, 271–278). The composition in red pigment is difficult to see because of the calcium carbonate that has been deposited on it. The panel covers an area of approximately 250 centimeters × 100 centimeters. A full drawing of the entire panel may be seen in Figure 6.7. The seated personage near the center resembles the seated rulers along the right side of the registers on the Lápida de Noriega attributed to Period IIIb–IV (AD 500–750) at Monte Albán (Caso 1965:Fig. 18; Marcus 1983:Fig. 7.5).[3] The cave figure is similarly attired with a buccal mask, a robe, a cape, and a conical hat. The robe and cape are decorated with spots or markings, suggesting that it is a garment made from an ocelot or jaguar pelt.[4] The figure points toward the cave's interior, with a right hand on a left arm. The bent right arm holds a rod that projects upward. Above the figure's head is a mountain glyph with an eye or opening that resembles a crocodilian eye or the entrance to a cave. A human skull (glyph H) rests on the mountain glyph.

To the right of the seated figure, the head of a lord (glyph X) is drawn in profile with an elaborate headdress representing glyph U projecting from a band above his forehead. The coefficient that accompanies this glyph unit is the numeral one. The glyph for the day 2 Alligator (glyph V), characterized by a crocodilian eye depicted above a row of at least three sharp teeth, is also represented. There is a strong possibility that this glyph might also represent the Monte Albán IIIa rendition of a raindrop (glyph C; see Urcid 1992:1:139–143; 2:Fig.

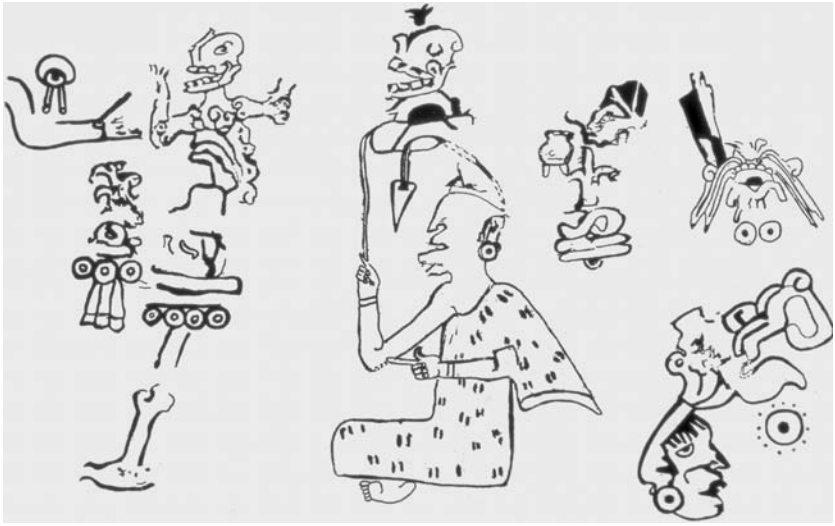


Figure 6.7. Drawing of a Late Classic Period panel in *Ñuiñe* style painted on the northern wall near the eastern cave opening of the Colossal Natural Bridge, Tepelmeme, Oaxaca. Drawing by the author.

4.70). A quadripartite banner protrudes above this glyph and is crowned by a diadem of circles and streamers. Next to it is a cluster of glyphs that are not enclosed by cartouches. These include a trifoliate plant on a snakelike coil (a headless coiled snake, glyph Y?) with the numeral eleven below it and above it, the representation of a monkey's head (glyph O) with a volute emerging from the mouth area like a speech or sound scroll. In front of the monkey's face is a two-legged vessel.

Another cluster of dates may be seen to the right of the seated figure's back. A couple of these day signs also incorporate the crocodilian eye and are accompanied by the numeral one, suggesting origins: 1 Alligator, 1 Serpent.[5] In addition, there are the dates 5 Reed (glyph D, Urcid 1997:Fig. 8) and 10 Moth or Owl (glyph F). Although the interpretation of the latter glyph, which is enclosed by an elaborate cartouche, may seem ambiguous, these two signs may be equivalent, since there is a moth in the region with a wing coloration pattern that mimics the face of an owl.

To the left of the seated figure and toward the cave's interior is the representation of a skeletonized figure whose heart is still in place. The depiction of the heart as a trispiral, also described as a "three scrolled swastika" (Acosta 1959:Fig. 18; Urcid 1992:2:Fig. 5.31), is similar to representations found on a carved stone monument from San José Mogote (Flannery and Marcus 1983:58; Urcid 1992:2:187). It seems to have had a wide temporal and spatial distribu-

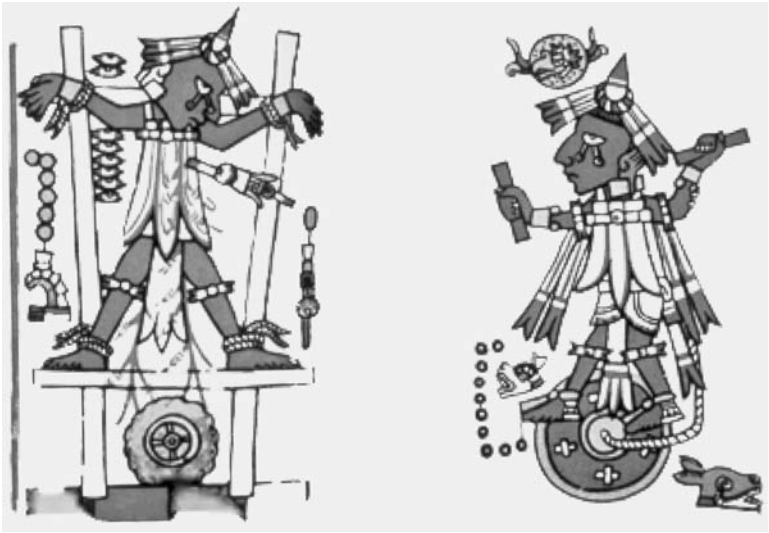


Figure 6.8. Tears flow from the eyes of two princes during their sacrifice, which ends their lineage in the Postclassic Period painted book known as Codex Zouche-Nuttall (after Miller 1975:Pl. 83-84). Their eyes with two teardrops closely resemble the eye and tears depicted in the extreme upper left of the Late Classic Period painted panel in Figure 6.7.

tion, as it is found on monuments from the central valleys of Oaxaca, the Mixteca, and Teotihuacan (Urcid 1992:2:Fig. 6.12).

Another symbol in the composition is a "crying eye," located in the extreme upper left section of the panel. The eye and tears are remarkably like those of the crying captives depicted in the last scenes of Codex Zouche-Nuttall as they are being sacrificed (Rincón Mautner 1999:Fig. 65). In the codex, one of the princes on the scaffold is being approached by an armed and threatening warrior who wears a skeleton mask and a headdress of flints and stars (Figure 6.8). Interestingly, the skeletonized figure on the cave wall also seems to direct its attention at the symbol of the teary eye.[6]

Continuing along the northern wall near the cave's center is a scene depicting the masked man or deity with outstretched arms presented in Figure 6.6. He is engaged in a magical interaction or communication with a deer (Figure 6.9). This anthropomorphic figure has an everted beak buccal mask revealing two large, protruding upper incisors; double tear tracks run from the eye. The anthropomorphic figure resembles Zapotec clay representations either of Cocijo, the God of Rain and Lightning, or of Xicani, the shaman and sacrificer capable of transformation.[7] This latter supernatural was discussed previously as the *yahui* responsible for making caves (glyph Ñ/S; see Urcid 1992:1:160–161, 168–169).

His strange hairdo resembles a band with a braid, yet he lacks the knot that is also used as a defining attribute of Xicani. He wears a black rectangular ornament at the neck that is decorated with concentric circles. The innermost circle is red. He seems to be holding flint knives, implements used to draw blood, especially to cut out the hearts or sever the heads of sacrificial victims. The torso is drawn with two chevron bands that could represent either a rib cage or a crude turtle carapace. Below the droplike incisors is a crudely drawn tongue, perhaps a modified version of the bifid tongue. Volutes suggesting sound, wind, or breath billow from the figure's mouth in the direction of the deer, suggesting an intention to have some effect on the animal. Areas of diffuse red pigment stain the mouth, eye, and upper chest of this male figure. In his left arm, he cradles a small trophy head that also has a Xicani-like buccal mask and a closed eye. Above the trophy head is another small head with a nonretroflexed buccal mask that lacks the lower jaw.

The deer faces the eastern cave opening; its lolling tongue suggests that it is exhausted or dead. The deer's head resembles images of the Zapotec corpus beginning in Monte Albán IIIa, where it is classified as glyph G (Caso 1928:34; Urcid 1992:1:118–120). Spots of red pigment stain the deer's outline, suggesting that the intent was to portray the animal as having been killed or sacrificed after it was caught. When an area is affected by extreme drought, deer, the largest animals in the forest, succumb to dehydration and present symptoms that include an edematous, swollen tongue that can no longer be retracted into the mouth. A similar rendition of a deer in the context of drought is represented in the Codex Dresden (López Castro 1983:Pl. 45), where a clear allusion is made to the Rain God as holding torches as if scorching the earth with drought.

On the south wall, at the western entrance to the tunnel, is a rare example

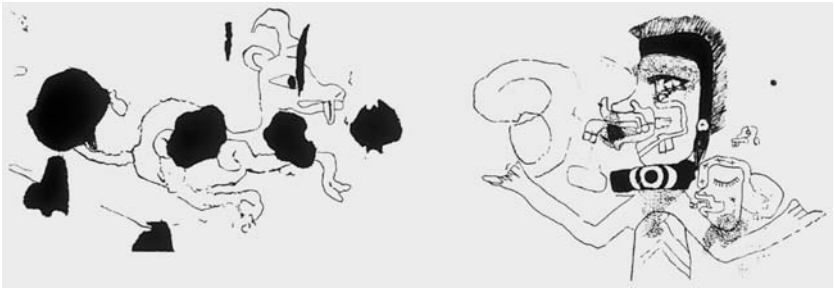


Figure 6.9. Drawing of the Rain God, Cocijo, or Xicani, the sacrificer, depicted in Figure 6.6, who here is facing a deer that seems severely dehydrated. The figure appears to be holding knives as if preparing to sacrifice the deer. This *Ñuiñe*-style drawing is located on the northern wall near the center of the cave-tunnel, Colossal Natural Bridge.

Figure 6.10. Drawing of the *Ñuiñe*-style text and sacrificial victim located along the southern wall and at the threshold to the western entrance of the cave-tunnel. The human figure at the far right is life-sized, and the very large glyph unit of the bundle on the mountain is approximately 240 centimeters long.

of pictographic writing in use during the Classic Period (Figure 6.10). Rather than clusters of glyphs with possible divinatory ritual significance, like those described above, this linear text is in sequence and meant to be read from left to right. The text appears to be older than the panel near the eastern tunnel entrance, possibly dating to the poorly documented Early Ñuiñe phase (200 BC–AD 300; see Rincón Mautner 1995:49–53; 1999:261–262; also mentioned by Bustamante 1997:52–53, and Spores 1997:62–63). The tentative age ascribed to this composition is based on a stylistic comparison with materials from the Valley of Oaxaca. Four glyphic units compose what is one of the largest pictographic "texts" ever reported for Mesoamerica. The composition is unique because of its extraordinary beauty and rarity and its remarkable condition. Most known examples of Ñuiñe writing consist of glyphs sculpted on boulders that were once assembled in a specific sequence, almost all of which have been displaced from their original positions. Since the Ndaxagua text is painted rather than sculpted, it is one of the only known examples of Ñuiñe writing that retains its sequence.

The first glyph unit in the painted text refers to the burning of an offering, perhaps copal, pitch pine branches (*ocote*), rubber, cotton, or tobacco, to the Rain or Lightning God, Cocijo (Córdova 1987:141) on the day 10 Owl (glyph F). The profile of a supine anthropomorphic figure surmounting a cartouche that encloses the day 11 Raindrop (glyph C from the Zapotec *lape;* see Urcid 1992:1:143) constitutes the second glyph unit. Sound or speech scrolls that emerge from the figure's mouth seem directed at a falling projectile. The black stripes running down the cheek and across the eye would seem to indicate a relationship to the god Xipe (glyph P).

The exceptionally large and complex third glyph unit depicts a mountain

glyph surmounting a cartouche with the date 1 Soap Plant (glyph N) in the lower section (Rincón Mautner 1995:46–47). The principal qualifying element above the mountain glyph appears to be the representation of a very special mortuary bundle. Several elements may be discerned, including a headdress decorated with circles and what may be an eye and facial stripes. Surmounting the bundle is a flower and above it what resembles a cut conch shell, flowing water, or an unfolding fern tendril. A sound scroll and a leaf project to either side of the bundle. Two human footprints descend from the mountain glyph in the direction of a coiled rattlesnake with a retroflexed snout. A leaf- or bladelike element emerges from the mouth, while barbs project from the lower jaw. As in the codices, human footprints are used to indicate direction and movement.

A few meters beyond the threshold of the western cave entrance is a representation of a standing sacrificial victim whose arms are tied behind his back (see Figure 6.10). He is bleeding or ejaculating into the stream that flows into the cave. Even though he lacks the buccal mask and clothing, I originally interpreted the unusual representation of the naked, bleeding sacrificial victim by the western cave opening as a penitent Quetzalcoatl (Rincón Mautner 1995:62). I based my interpretation on Motolinía (1979:7), who referred to the ribbon or leather strap tied to Quetzalcoatl's shoulder. Consistent with this interpretation is its reference in the *Leyenda de los soles* of the Codex Chimalpopoca (*Códice Chimalpopoca* 1975:121) in which Quetzalcoatl bleeds his penis over the bones of a male and a female to create the people of the Fifth Sun. The stenciled arm and hand in front of the naked figure at the threshold of the cave could be loosely interpreted as the "signature" of a sacrificial victim (usually a slave; see Sahagún 1989:1:162), although the custom was for the imprints of both hands to be placed on the threshold of the master's doorway.

The Colossal Natural Bridge's Classic Period pictorial legacy probably inspired and served to preserve more ancient mythical-historical traditions. The evidence strongly suggests that the people using the cave during the Postclassic Period appropriated and reworked several of the ideas from the cave paintings and incorporated them into their cultural tradition, which survived in the codices and bone scepter discussed in the next sections. The masked seated figure pointing the way through the cave-tunnel (Figure 6.7) brings to mind the account of Quetzalcoatl leading his people through the mountain as described and illustrated in Codex Ríos (Figure 6.11; Ehrle 1900; see also Rincón Mautner 1995:58n 29; 1999:Fig. 46). The Ñuiñe text on the cave wall also illustrates the basic theme found in the Selden Roll, in which this deity's relic bundle is taken to the Mountain of the Intertwined Snakes. This place name is closely associated with Coixtlahuaca, which, in turn, means "Plain of Snakes." I have also discussed how the bleeding naked man depicted on the cave wall could have been interpreted as a portrait of Quetzalcoatl and ancestor to the royal Toltec lineages

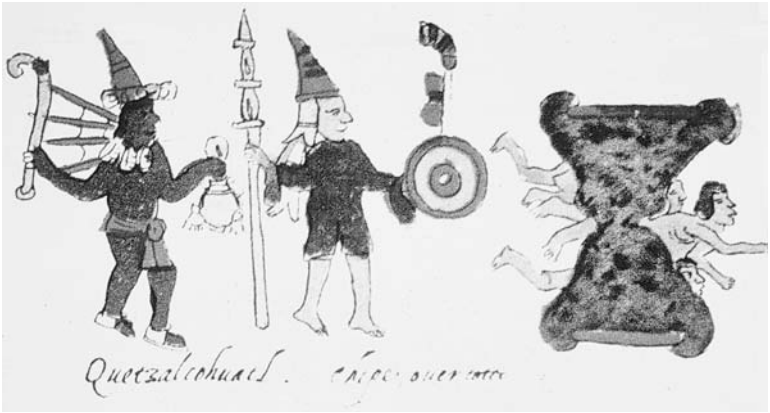


Figure 6.11. Quetzalcoatl and Xipe lead the people through a cave-tunnel, as represented in Codex Ríos (Vaticanus A). After Ehrle (1900:9).

that ruled many of the preeminent kingdoms of Postclassic central Mesoamerica (Rincón Mautner 1995:62).

The depictions of offerings, deer and human sacrifice, the Rain God, and the sound-emitting, water-supplying, perhaps life-giving deity bundle all suggest that ritual activities were performed at the Colossal Bridge. Many of these activities seem to be have been directed at vision seeking and the pursuit of an outcome that was favorable to human survival. Whether for rain propitiation or ruler making, the basic themes are those of fertility and renewal. Evidently, the cave's pictographic record invokes the powerful theme of transformation by referring to life, sacrifice, and death. In all likelihood, the Colossal Bridge was a place used for rituals associated with the shaman's or ruler's transformation during vision-seeking experiences. Transformation is also evoked by the relative size of the paintings found near each of the tunnel entrances. The elements in the panel by the eastern entrance are small compared with the very large glyphs of the text and the full-sized, naked human male on the opposite wall, by the western portal.

The choice of pigments for these compositions may also be of significance. While the panel is painted red, the glyphic units in the text combine black, white, and red; the naked man, to the right of the text, is also painted red.

Depictions of the Colossal Cave-Tunnel in the Coixtlahuaca Basin Codices

Inferences about the ritual significance of the cave at the Colossal Natural Bridge may be drawn from a number of sixteenth-century paintings, known as "*lienzos*,"

that belonged to the rulers of communities in the Coixtlahuaca Basin. Several of these paintings refer to two landforms: the cave-tunnel described previously; and a sacred mountain. Their eventual appropriation, in the reenactment of creation, seems to mark the establishment of the Chocho-Popoloca in the region. Upon arriving in the Coixtlahuaca Basin, the priests leading the people may have been looking for certain signs, which they recognized on these two landforms, so they decided to settle.

The cave-tunnel is most clearly depicted on the Selden Roll as the open maws of two earth monsters that face opposite directions (Figure 6.12).[8] Quetzalcoatl is in the upper register, seated above a multitiered, star-studded heaven. Footprints lead down from heaven to the gaping upper maw that corresponds to the eastern cave entrance. Two pairs of chanting attendant priests face each other across the maw. Their names all incorporate the day sign Flint.

Below them is the western entrance decorated with seven hearts.[9] A *yahui* holds a flint knife in each hand and foot. Flint blades adorn his hair, which is tied in a topknot. The upper entrance and the spaces where four priests once stood can also be seen on the now-defaced Gómez de Orozco fragment (Caso

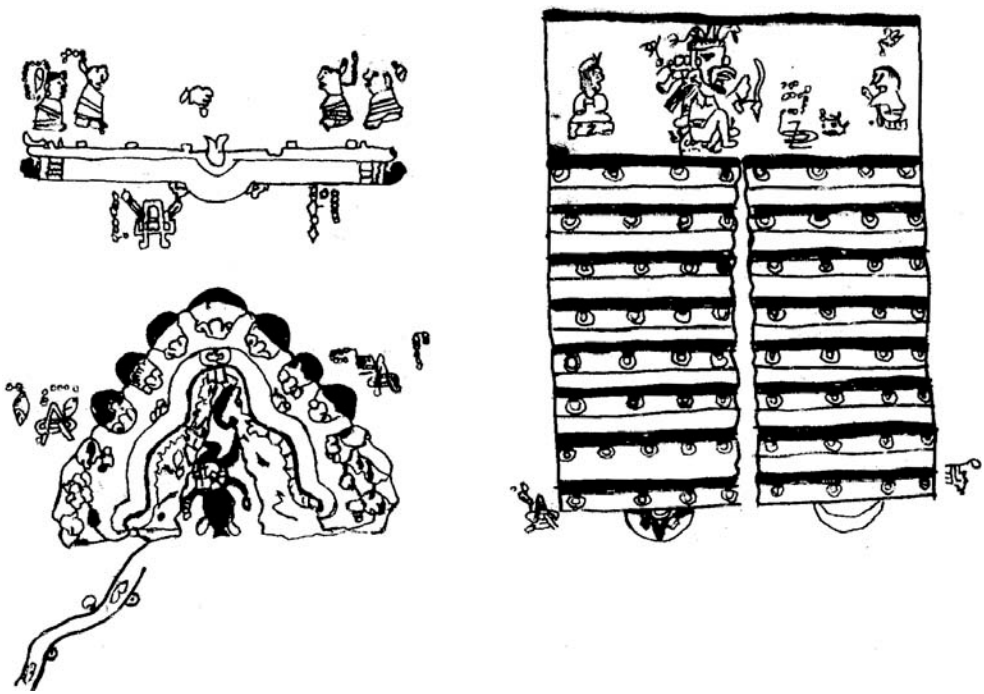


Figure 6.12. Quetzalcoatl seated in heaven and footprints marking his descent into the Colossal Bridge. The two cave entrances are represented as the open maws of two earth monsters. Redrawn by Keith Prufer after Selden Roll A. 72.

1954). There is also a line of footprints that returns to heaven, which may be a reference to Quetzalcoatl's transformation into Venus upon his demise.

On the Selden Roll, another group of four priests pays homage to Quetzalcoatl's mortuary bundle at a palace or temple oracle decorated with the *ollin,* or motion sign, located just outside the cave. In a room located beyond the entrance to this building are seated two naked men, who appear to be giving some form of response. Flames project from their mouths. Their prominent fangs suggest that they possess special powers. The priests are then shown carrying Quetzalcoatl's bundle to a mountaintop, where they make an inaugural or foundation fire (see Figure 6.15). The ceremony seems to have been performed not only to take possession of the land, but also to extol the earth's creation at the place where Quetzalcoatl and Tezcatlipoca tied the Earth Goddess (Rincón Mautner 1995:61–62; 1997:136).

The Colossal Bridge is incorporated into the story of the migration from Chicomoztoc on the Codex Tlalpitepec. Two lines are drawn leaving Chicomoztoc, recognizable by seven dark circles around the larger open maw of an earth monster, the convention used in depicting caves. The line on the left connects to a spring and a cave with a deer's head, which would represent the passage through the Colossal Natural Bridge.

The connection of these two caves seems significant. In all likelihood, the line represents the path taken by the priests who are shown on several Coixtlahuaca codices as deity bearers. This may have also been the path taken by Quetzalcoatl through the underground passageway of the Colossal Natural Bridge (Rincón Mautner 1999:309, Figs. 66 and 76). The second line from Chicomoztoc follows a circuitous path along the right-hand side of the composition, perhaps depicting the wanderings of a migrating people. It leads up to a double mountain place where the Lord 12 Flint and his spouse ruled.[10] These rulers had four children, each of whom married into the principal royal houses of Cholula, Culhuacan, and Mexico-Tenochtitlan.[11] The fourth child, Lord 7 Water, traveled south to the Mixteca and appears to have led his people into the Coixtlahuaca Basin through the cave-tunnel on the Ndaxagua (Rincón Mautner 1995; 1997:136–137; 1999:Fig. 76; 2000:Table 3). On Codex Tequixtepec I, he is depicted on the far right in the lower corner above a locative glyph depicting a fanged, crenellated earth monster that represents the cave-tunnel (Figure 6.13).

Later Colonial Period codices from Coixtlahuaca do not portray the Colossal Bridge with the earth monster/open maw convention. Since the indigenous religion was being replaced by Christian beliefs and cave cults were being actively discouraged, the glyph of the open maw, used in referring to caves, appears to have been substituted for another place-sign in most of Coixtlahuaca's other codices. The substitute place-sign that possibly represents the cave-tunnel of the Ndaxagua on these other codices is also found on the Selden Roll, yet its full

Figure 6.13. The cave-tunnel represented as the crenellated earth monster mountain separates the rulers of the lineage into those who ruled outside the Coixtlahuaca Basin and those who became established at places within it. Codex Tequixtepec I, photo courtesy Honorable Ayuntamiento of San Miguel Tequixtepec, Oaxaca.

meaning has not yet been deciphered. This place-sign consists of a round rock partially cut away so that it presents a craggy ledge. A pot with a human head sits on the ledge. A large sound scroll, in the form of a snake, emerges from the mouth of this humanized pot (see Figure 6.15). The pot may represent a mortuary bundle. Human footprints lead from the mouth alongside the snake. A date 1 Rabbit/7 Death is associated with this glyph for Pot Hill which also occurs on Codex Tlalpitepec (Caso 1961:257) as the Hill of the Pot and Clawed Serpent. As in the Selden Roll, human footprints along the clawed snake's back on Codex Tlalpitepec indicate the direction of movement. Interestingly, the representation of a mountain with a mortuary bundle, as well as footprints associated with a rattlesnake, are thematically similar to part of the Classic Period text that was painted near the cave's western opening (Rincón Mautner 1995:55; 1999:Fig. 58).

On Codex Coixtlahuaca I, the cave-tunnel is represented as a clay pot between mountains through which a stream passes to an open maw below.[12] The snake emerging from a pot represented on Codex Tlalpitepec resembles the depiction of the cave on the lower section of the narrow painting known as Codex Tequixtepec II. On Codex Tulancingo I, the cave is represented as a pot behind the founding ruler, Lord 6 Rain-Heart, with the date 1 Rabbit/7 Death (coincident with the date associated with Pot Hill seen on other codices). On Codex Baranda, the cave-tunnel is represented as three egg-shaped hills behind a pot.

Quetzalcoatl's Scepter

Few cult objects or materials that could be identified as ritual offerings have been recovered from the cave-tunnel on the Ndaxagua (Rosario) River. Numerous small corncobs, as well as abundant Classic and Postclassic Period ceramic potsherds, lie scattered between the cobbles and boulders of the streambed that constitutes the cave floor. No remains of the cotton offerings, which the 1579 Ixcatlan report states were customarily left in the cave during unspecified ceremonies, have been identified (Velázquez de Lara 1984:227–228). Likewise, no remains of hallucinogenic materials such as mushrooms or tobacco, which this report does not mention, have been discovered. In all likelihood, use of such materials in rituals would have been common. From the description of the cave setting and the paintings, it seems logical to infer that the cave was regarded as a sacred place and that people visited it on special occasions. Furthermore, the cave has been looted many times. In the early 1960s, a local schoolteacher who visited the cave found an engraved bone near the western entrance (Rincón Mautner 1995). Remarkably, the bone's engraving provides additional information about the cave, how it was perceived, and the beliefs that may have been associated

with it (Figure 6.14). Furthermore, as an object, it seems directly related to the events described in the codices that describe the arrival and establishment of the Chocho in the Coixtlahuaca Basin.

In an earlier study (Rincón Mautner 1995:59–60), I proposed that the bone could have been an object similar to the scepter that Quetzalcoatl is shown holding in the Selden Roll (see Figure 6.12). The scepter in the painting seems to have been adorned by feathers; the bone has three holes to which feathers could have been fastened.[13] Furthermore, 9 Eagle, the last priest in the group that is bringing Quetzalcoatl's relic bundle through the cave-tunnel and out of the Ndaxagua canyon (Figure 6.15), seems to be holding a similar object, though it lacks the decorative feathers. This priest also carries the shell trumpet and an incense burner. Power objects such as the bone and the mortuary bundle provide a direct link with the deity. Perhaps as a way of legitimizing his authority and right to govern, the ruler would require such objects. More important, if the bone was the handle to a fan, it may have been used in blood sacrifice to blow air on the wound made by the ruler in order to alleviate his pain. In doing so, he may have been summoning the Wind God to aid in his vision quest.

Both the exquisite design and the account on the bone suggest that it must have been a highly prized object. Three symbols for turquoise, cotton bolls, and the numerous references to water underscore its precious nature. In the upper register, Coixtlahuaca's tutelary deities, Mixcoatl and Quetzalcoatl, are represented. Both gods lack several of the accouterments that characterize them. For example, Quetzalcoatl lacks his buccal mask and cut conch necklace. The second figure is a warrior who wears the preeminent sign of rulership, the *xiuhuitzolli* (turquoise) crown; however, the cloud serpent behind him secures his identity as Mixcoatl. Mixcoatl was one of the most important personages of ancient Mexico and regarded as both a great warrior and a great hunter by the Chichimec and as Quetzalcoatl's father.[14]

The masked warrior figure, depicted as descending into the open maw of the earth monster and armed with darts, is also Camaxtle-Mixcoatl, the hunter (Rincón Mautner 1999:299, Fig. 69). He may be following his prey, a rabbit that emerges from the opposite cave entrance, engraved as a second gaping maw on the opposite side of the bone. The "descent" into the Underworld could perhaps refer to a celestial event, in which case the figure would be the closely associated with Tlahuizcalpantecuhtli, the Lord of the Dawn (Nicholson 1971:426).

This interpretation of the scene on the bone is consistent with the cave-tunnel's orientation, since the morning star, Venus, can be seen before sunrise from the cave's lower entrance, which opens to the east. Outside the cave opening where the rabbit emerges are three kneeling male deities involved in a ceremony. The most ornately dressed is the Sun God, a deity associated with jewels and wealth. He holds both arms open toward the Old Fire God located just

Figure 6.14. The drawing of the Late Postclassic engraving on a mountain lion femur from the cave-tunnel represents Coixtlahuaca's tutelary deities, Mixcoatl-Tezcatlipoca and Quetzalcoatl; the two cave entrances as the maws of earth monsters; the dead in the Underworld; and several gods. Drawn by the author from the original located in the Museo Frissell de Arte Zapoteca, Universidad de las Américas, Mitla, Oaxaca, after a 1963 drawing by Parmenter.

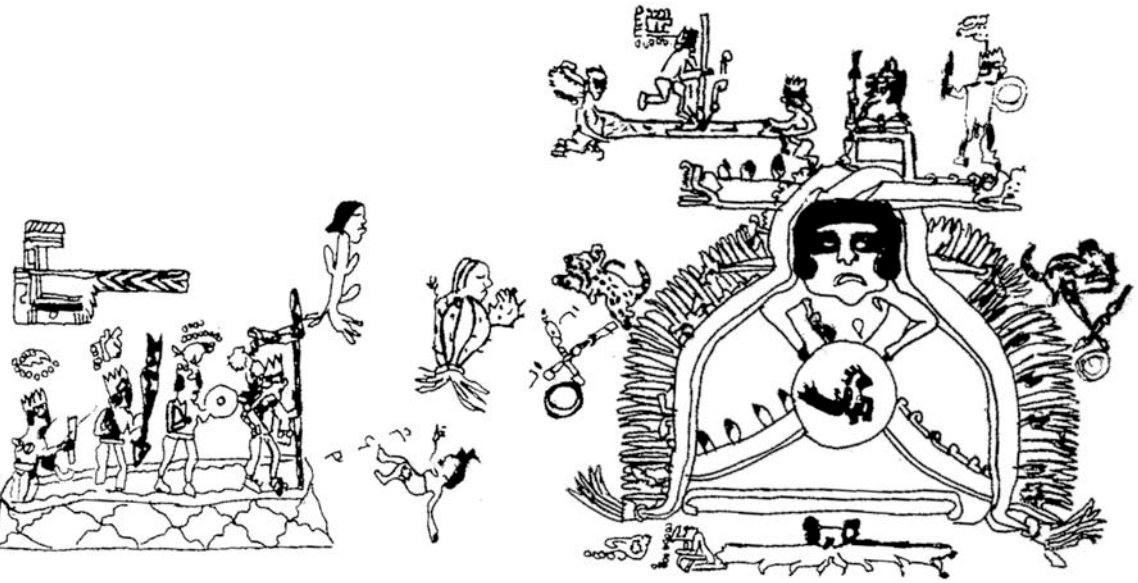


Figure 6.15. Priests emerge from the Ndaxagua Canyon carrying Quetzalcoatl's mortuary bundle to the summit of the Mountain of the Intertwined Snakes. The last priest carries an object similar to the engraved mountain lion femur found in the cave-tunnel, which may have served as a handle to a fan. Redrawn by Keith Prufer after Selden Roll A. 72.

above him on the bone. To the right and below the cave entrance is Mixcoatl, recognizable by the mask and the fire drill he holds. Mixcoatl is credited with inventing the fire drill and giving fire to humanity (Miller and Taube 1993:116). Could these three gods represent the sacred hearthstones?

Between the two cave entrances, three "flying," richly attired male figures are carved on the bone. Like the reclining figure on the tree, though in contrast to other figures on the bone, none of them present pupils within the outline of their eyes. Next to the lower cave entrance, which would correspond to the cave's western portal, are three naked male figures with closed eyes, suggesting that they are dead, perhaps by ritual sacrifice. The dead figure to the right of the lower cave entrance holds a flint knife in one hand. A smoke or cloud serpent emanates from the head of the man at the top of the maw. Were it not for his placement with respect to the cave entrance, the snake, and his nakedness, it would appear that he was sleeping rather than dead, since his eye is closed and his head appears to be reclining on his bent arm. The naked figure immediately to the left of the entrance is difficult to observe clearly because the engraving is very worn in this area. The faint outline of his eye suggests that it is

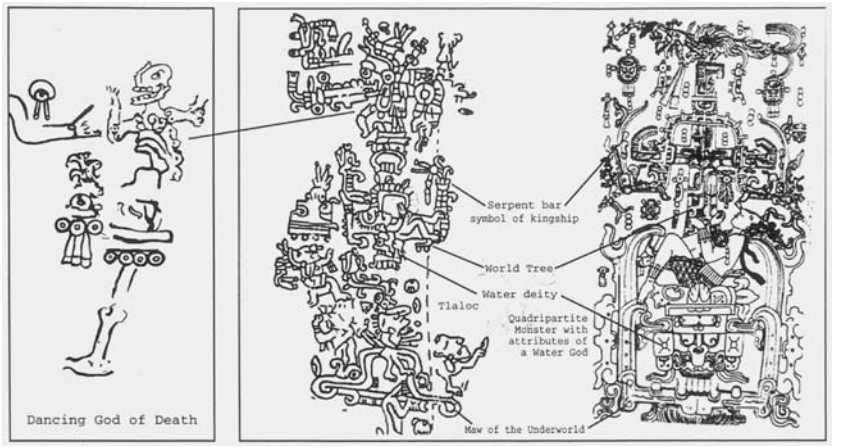


Figure 6.16. Comparisons of the Classic Period dancing skeletonized figure from the cave wall (see Figure 6.7) with the Postclassic engraving of the God of Death on the mountain lion femur in Figure 6.14, and the representations of the death of a ruler on the femur with the sculpted lid of Pacal's sarcophagus at Palenque. Adapted from Schele and Miller (1986:Pl. 111a), after a drawing by Merle Green Robertson.

closed, but like the other dead who are portrayed, enough of his mouth is left to reveal a protruding upper fang. This would appear, however, to be another naked male who is holding his hand close to his mouth. Masks on mortuary bundles and small stone sculptures are often depicted with a fang protruding down from the upper jaw on either side of the mouth, much like old people who are depicted with a "toothy" grin from which only the two upper canine teeth protrude. The flying fanged figures on the bone might be associated with soul flight, as the figures seem to be dead (i.e., they have no pupils and their eyes are closed). Smith (1973:65–71) and Furst (1978:20–21) refer to the ascending and descending properties of fanged figures as *xolotls.* The sharp fangs seen in these figures, as well as on most earth deity representations, suggest that they are an attribute derived from the fangs of the rattlesnake, the animal that unequivocally embodies earth symbolism. It seems that the dead are transformed into fanged earth spirits upon entering the Underworld, as represented by a cave or after interment in a grave or tomb. More recently, the Mixtec term *ñuhu,* meaning "earth" (Smith 1973:66), has been interpreted as referring to ancestors and spirits (Byland and Pohl 1994:114).

Inside the cave is the God of Death dancing over an unnamed personage who is lying on a Tlaloc tree. This dancing god resembles the skeletonized figure on the cave wall (Figure 6.16). Since it is usually rulers or deities who are depicted on ritual, ceremonial, or luxury items such as this bone, it seems probable

that the person on the tree might be a future ruler seeking a vision, or perhaps a dead or dying ruler. The *Historia Tolteca-Chichimeca* (Kirchhoff et al. 1989:171, Facs., p. 35) mentions that it was customary for a future ruler to lie down in the branches of a tree for four days and nights without food or drink. Only after he had endured this suffering was he fit to be initiated as ruler. His nasal septum would then be perforated in a ceremony that marked his anointing as king.

In the alternate interpretation, that of a dying or dead ruler, the scene depicted on the bone closely resembles the Classic Period depiction of Pacal on the sarcophagus lid in the Temple of the Inscriptions at Palenque. Furthermore, because the bone seems to represent the cave entrances at the Colossal Natural Bridge, which are located at each end of an east to west–oriented tunnel, it is possible to infer that the ruler's head on the bone is pointing north while he faces the cave's eastern opening. Pacal was interred with his head to the north (Carlson 1976; 1981:196). These two interpretations are not inconsistent with one another, as the ruler must conquer his fear and come to terms with his own mortality. Being close to death from food and drink deprivation, he could have endured by entering a state of trance. His near-death experience would prepare him to face the hardships of his role. The cycle would be completed once he succumbed to his own death.

Conclusions

This chapter on ancient ritual cave use in the Mixteca Alta gives only a brief glimpse of a rich cultural tradition of considerable time and depth. Reciprocity between the gods and the people makes life possible and allows humans to attain their aspirations. The idea of reciprocity was, and still is, at the heart of cave cults. Caves provide a point of reference for the beginning of time and the subsequent order, legitimacy of rulers, and assistance in times of need. Placing the few instances of Early Colonial Period recorded cave use in a broader historical context reveals that people in several Mixteca communities were suffering some sort of stress. Their rulers and priests were seeking to alleviate the stranglehold of drought, famine, and disease by turning to their religion when Dominican priests caught and made examples of them.

Artifacts recovered from caves in this region are not well documented. Most often they are the result of accidental finds rather than of systematic exploration, mapping, and excavation. Yet the depictions of caves and rituals in Pre- and Post-Hispanic codices underscore their importance in the indigenous way of life.

The difficulties encountered in interpreting the figures, symbols, and, especially, the day-bearer signs painted inside the Colossal Natural Bridge are a re-

flection of the small size of the Ñuiñe corpus, the lack of a comparable cave with which to develop a more appropriate contextual framework, and an apparent variability in the conventions used in representing day bearers. Further complicating interpretation is the fact that several groups of paintings are from different time periods.

The codices refer to the cave-tunnel by linking it to the stories of Quetzalcoatl's descent from heaven, his passage through the Underworld, and the establishment of the royal lineage in the Coixtlahuaca Basin during the Epi-Classic/Early Postclassic Periods. Quetzalcoatl's and Mixcoatl's mortuary bundles are taken by the priest bearers from the temple outside the cave and enthroned on the summit of the Mountain of Intertwined Snakes, where an inaugural fire is made that commemorates the Earth's creation.

My findings about the cave-tunnel in the northern Mixteca, remarkably, support the unity of Mesoamerican concepts regarding the order of the cosmos: from creation to the origins of the people; fertility; sacrifice, death, and ancestor worship; kinship ties, rulership, shamanic transformation, and vision quests; and even spatial orientation. Overall, the ideas appear to be patterned so that they crosscut time, geography, and linguistic and cultural boundaries. In the indigenous view of history as a structured, cyclic phenomenon, the ideas of previous inhabitants, or the "ancestors," are incorporated and reworked, and daily life and history become the repetition of myth.

Cave cults have proved to be particularly difficult to eradicate throughout the Mixteca and Coixtlahuaca Basin. Despite Christianity's relative success, the beliefs associated with caves remain deeply entrenched in the Mesoamerican culture of this area.

Notes

1. Within the broad Nahuatl-speaking area, the beings that own and inhabit caves are referred to as *tlaloques* (servants of the rain god, Tlaloc), as *tepeyolotli* (hearts of the mountain), or even as thundering deities, the original owners of maize and other foods necessary for humankind's sustenance (Broda 1991:470–471).

2. There seems to have been a generalized belief that "bridges," or subterranean passageways through mountains, and even underground houses, were made by Quetzalcoatl (Sahagún 1989:1:217–218).

3. The ruler portrayed seated inside a cave is a very ancient Mesoamerican idea. Formative Period renditions include Monument 1 at Chalcatzingo, Morelos, and Mural 1 at Oxtotitlan, Guerrero.

4. The custom of using garments made from jaguar pelts was widespread among members of the Classic and Postclassic Period nobility. Other Classic Period representations can be found on polychrome Maya cylinder vases. Likewise, the personages on the doorway and wall of the A Portico and one of the warrior factions portrayed on the battle scene mural at Cacaxtla wear jaguar pelt uniforms.

5. Urcid (1996:52, Fig. 5) has reinterpreted this glyph as an unfolded version of glyph U. I had originally interpreted it as a snake (Rincón Mautner 1995:47, Fig. 10a). The central elements resemble the downward-curving buccal mask of the "jaws of the sky" motif (Urcid 1996:Fig. 4); however, its other qualifying elements, such as the crocodilian eye, the double bifid tongues, cranial crests, and tassel, which I referred to in my earlier interpretation, would be missing in the "jaws of the sky" symbol. The "jaws of the sky" occurs frequently in several contexts. A comparison of the profile view of glyph U, mentioned in the above description of the panel, and other examples suggests that the "snake" and glyph U are probably different glyphs, or perhaps the same glyph used in different contexts. One has definite reptilian attributes; the other is avian (i.e., the broad-beaked bird). Urcid (1992:1:173) has suggested that the presence of human attributes was a way of asserting that glyph U does not represent naturally occurring entities. Yet, no human attributes can be recognized in either of these glyphs. Further complicating the interpretation is the fact that glyph U in profile from the Colossal Natural Bridge appears to be a qualifier for glyph X, and Urcid (1992:1:177) mentions that glyph X, as a noncalendrical sign, also occurs with coefficients.

6. My interpretation of the "eye with tears" symbol as a starlike celestial body like Venus is based on the context in the cave: the symbol is next to a skeletonized figure. Eyes, which may be considered modified versions of this symbol, are portrayed along the bottom of bands representing the sky in Postclassic or Colonial Period pictographic manuscripts like the Selden Roll. On this document there is also a representation of a path of flints and stars taken by one of the deity bearers, which may represent either a night journey or shamanic flight.

7. In this chapter, I am revising my earlier interpretation of this figure with outstretched arms as a representation of the rain and lightning god, Cocijo (Rincón Mautner 1999:265–268, Fig. 59). As Xicani, *yahui,* or shaman, the figure is involved in the ritual sacrifice of a deer, which, as is explained in the text, is related to drought and to rain propitiation. During the Colonial Period, blood sacrifice of goats and sheep in caves near Coixtlahuaca seems to have replaced the sacrifice of humans and deer.

8. Burland (1955:14) refers to the lack of footprints between the two cave entrances as a hiatus in the account on the Selden Roll that divides the heavenly preamble from the earthly story (see Figure 6.12).

9. I identify the maw of the earth monster decorated with seven hearts on the Selden Roll as the western entrance to the cave-tunnel. Burland (1955:14–16) refers to this representation as the "Hill of Flowers," "Cave in Flower Hill," and "Cave in the Hill of Flowers" (see Figure 6.12).

10. This Lord 12 Flint and his spouse, who had the same name, were the third rulers of the dynasty. They ruled at a place that is represented on Codex Tlalpitepec as a mountain with a blooming agave plant. On Codex Tequixtepec I, the same rulers are shown at a place characterized by two snow-capped mountains. A tree emerges from the saddle between the peaks. The saddle incorporates the representation of either a river or a basin filled with round elements that resemble tamales or the hominy used in pozole. The same place is referred to in Codex Coixtlahuaca I as a river filled with similar objects and festooned with green feather headdresses at the foot of twin peaks. These place-signs may all refer to Tamoanchan or Tollan. Furthermore, the snowcaps may refer to either Popocatépetl and Iztaccihuatl, or to Poyauhtecatl (Pico de Orizaba) and the Sierra Negra, which sometimes is covered by snow.

11. The reference to the children of the 12 Flints indicates that Coixtlahuaca's ruling

family was kin and equal in stature to the highest-ranking noble houses of Postclassic Central Mexico.

12. The representation of the open maw on the Codex Coixtlahuaca refers to a different limestone bridge, or *pont d'arc,* which is located on the Xiuquila River, not far from the cave-tunnel. The top of this second natural bridge has been transformed into an irrigated grove of fruit trees and coffee known as the Huerta de Juquila (i.e., Xiuquila). The grove lies about four kilometers downstream (north) from the confluence of the Ndaxagua and the Xiuquila Rivers (Rincón Mautner 1999n70, Fig. 74).

13. A bone scepter or fan handle from the Tenango Cave also has perforations to which feathers could have been attached (Winter 1989:76).

14. Mixcoatl is a deity often associated with both Camaxtle and Tlahuizcalpantecuhtli (Nicholson 1971:426–427), with a celestial or star-associated role, as the transformed soul of the sacrificed warrior (Seler 1904a:264–265). After re-creating the earth, Tezcatlipoca changed his name to Mixcoatl and honored the gods by lighting fires with fire drills. In his analysis of the Selden Roll, Burland (1955:33) identifies the second deity bundle brought into the basin on the path of flints and stars as Yaotl, another name by which Tezcatlipoca was known. The figure on the bone lacks the striped body paint, an attribute associated with Camaxtle or Mixcoatl (see Miller and Taube 1993:116; Nicholson 1971:426–427).

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PART 3

THE MAYA REGION

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CHAPTER 7

Some Notes on Ritual Caves among the Ancient and Modern Maya

EVON Z. VOGT AND DAVID STUART

Introduction

Caves and hills or mountains are arguably the most prominent natural features of the Maya landscape, and they have for centuries been the focus of ritual and communal activities. Whether we look at the karstic limestone lowlands, the piedmont regions to the south, or the volcanic terrain of the highlands, caves and hills have long provided essential models for an interrelated set of crucial concepts in cosmology and ritual (Awe 1999; Bassie-Sweet 1991, 1996; Brady 1991, 1997; Brady and Veni 1992; Brady et al. 1996; Burnett et al. 2002; Freidel et al. 1993; Gossen 1999a; MacLeod and Puleston 1979; Schele and Freidel 1990; Stone 1995; Thompson 1959; Vogt 1969, 1993, 1981).

In this chapter we attempt to discern widely distributed and conservative patterns in the ways caves and hills have been understood and used by the Maya. We focus on ethnographic data and also the results of recent advancements in deciphering textual sources from the Classic Period. The two vantage points, one Pre-Columbian and the other modern, show a remarkable degree of overlap, and we believe it is from these convergences that we can discern the long-lasting and most-essential Maya beliefs surrounding the surface and interior of the landscape.

Our detailed ethnographic treatment will focus on the relatively well studied region of Highland Chiapas, although many of the shared patterns we see among those communities are certainly more widespread. We conclude with an examination of how caves are ambivalent, boundary-line settings (between this world and the supernatural world) that, as posited by Edmund Leach and Victor Turner, actively generate ritual.

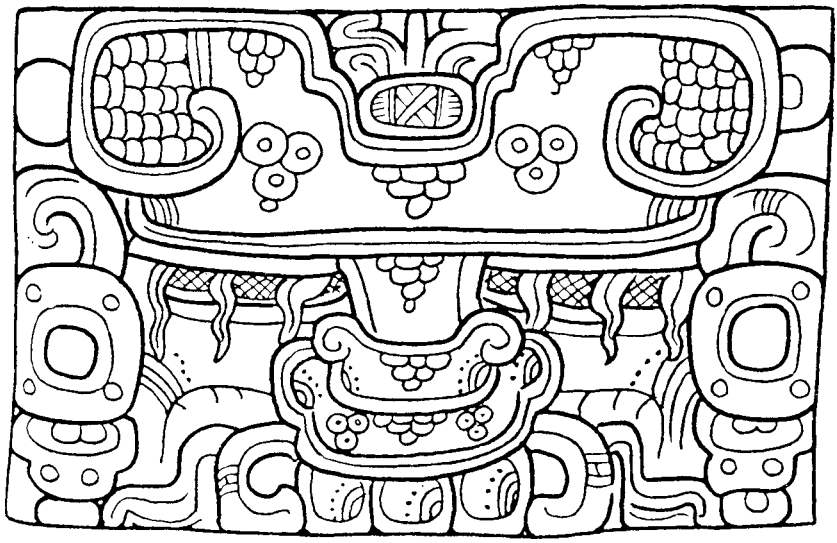


Figure 7.1. The animated mountain, or *witz,* from an Early Classic Maya vessel. Drawn by David Stuart.

Mountains and Caves in Ancient Maya Religion

A number of years ago Vogt (1964) made the observation that Maya temple-pyramids of the Classic Period replicate sacred mountains and their summit shrines, examples of which can today be found throughout much of Chiapas and Guatemala. This idea has been borne out by several lines of evidence, not the least of which is the extensive comparative body of evidence concerning mountain-pyramids both within and outside of Mesoamerica (Scully 1991; Townsend 1982). More specific support comes from the textual and iconographic evidence of Classic sources, which explicitly name or label ritual architecture as *witzob,* or mountains (Stuart 1997). Indeed, the animate mountain image (Figure 7.1) is one of the most common elements of ancient Maya iconography and is used to specify the names of ritual locations and shrines. We will discuss below certain evidence that suggests an explicit conceptualization of temple-shrines as the cave interiors of mountain-pyramids.

For the present-day Maya, the essential connections of people and communities to the earth generally are expressed in the cosmological architecture of caves and mountains. For the ancient Maya, one could argue that much the same was true, since ceremonial centers were literally constructed as arrays of mountain-pyramids and cave-temples. And, as is true today among numerous traditional communities (to be discussed below), iconographic and epigraphic

evidence strongly suggests that mountains and their architectural counterparts were conceived in ancient times as residences of ancestors and possibly co-essences (animal-spirit companions) of humans. Perhaps the most explicit representation of this concept appears on a selection of sculptures from El Peru, Guatemala, depicting large *witz* ("hill") masks beneath the feet of standing rulers (Figure 7.2). Within the two eyes of the masks, as if they were windows for seeing into the earth, we find portraits of ancestors, in one case, a male and a female figure meant to represent the mother and father of the king. The funerary pyramids of Classic architecture, holding the actual remains of ancestors within tombs, sometimes referred to as "houses" (*atotob*) in the afterlife, can also be seen as reflecting the same spatial relationship (Figure 7.3).

Excavations and archaeological surveys conducted since the 1960s clearly attest to the importance of caves in the ritual geography of the ancient Maya, but until now there has been no evidence of caves being mentioned in the inscriptions of that period. The recent suggestion by Stuart that a common element of the script reads **CH'EN** or **CH'EEN,** "cave," would, if correct, change this situation drastically.[1]

The "Cave" Hieroglyph

The sign in question (Figure 7.4) is the so-called impinged bone element, which has been the topic of considerable discussion among epigraphers. It is one of the most frequent glyphs known in the Classic inscriptions and in the codices. If in fact its reading is **CH'EEN**, there is every indication that caves were a central topic of discussion in Maya inscriptions.

The details of the evidence in support of this new reading are presented elsewhere (Stuart 1999), but a few basic points can be made here. The representation of the sign is difficult to discern, but early variants clearly show a bone motif with side indentations within the standard rounded form of a main sign. In later examples a half-darkened field was added, and the bone was sometimes changed into a mandible or, more commonly, a detached eye. Also, there are similarities between these variants and the sign read **MUK** or **MUKNAL**, "burial," which also shows a half-darkened field but with a skull within (see Stuart 1998). The sign in question therefore has strong visual affinities with themes of death and the Underworld.

The associations can be expanded once we see that the glyph corresponds to a recurrent motif in Maya iconography: eyes and bones against a darkened background. In iconographic settings this seems to specify some blackened space with Underworld associations, as shown, for example, on the Vase of the Seven Gods (Figure 7.5). The thematic connection to death and the Underworld is

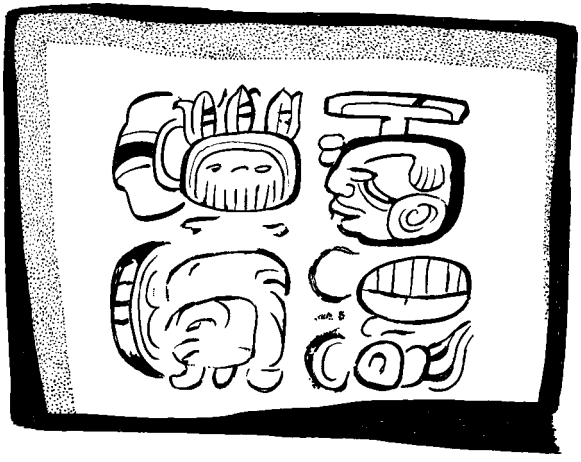


Figure 7.2. El Peru, Stela 31, basal register. Photograph by Ian Graham; courtesy Corpus of Maya Hieroglyphic Inscriptions.

Figure 7.3. A royal tomb named as a "house" (*atot*) of the deceased. Painted wall from Tomb 6, Río Azul, Guatemala. Drawn by David Stuart.

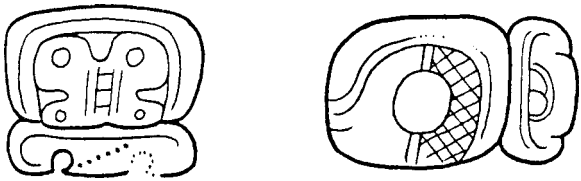
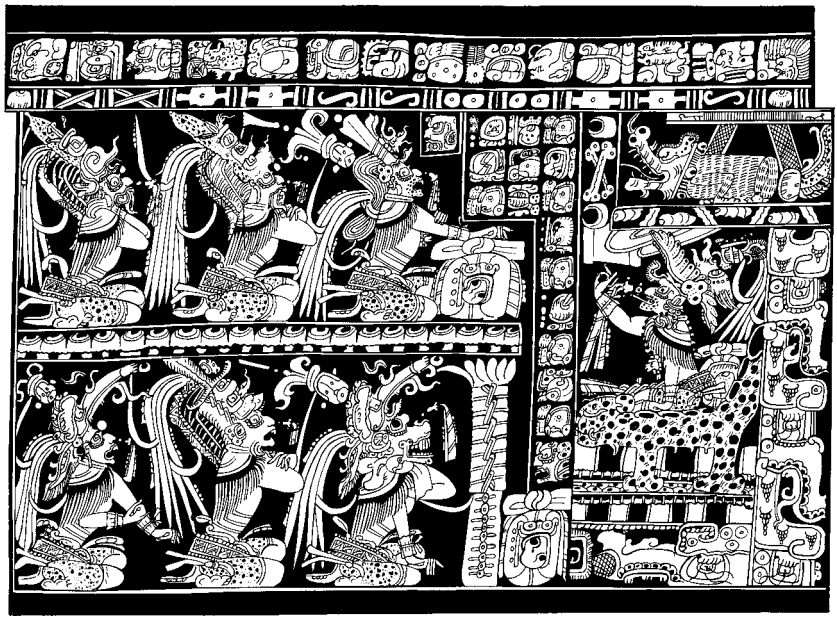


Figure 7.4. The putative **CH'EEN**, "cave," hieroglyph in its Early and Late Classic forms. Drawn by David Stuart.

Figure 7.5. The Vase of the Seven Gods. The "bones and eyes" motif above the throne of God L, at right, may indicate a cave setting for this creation scene. Drawn by Diane Griffiths Peck, after Coe (1974).



echoed by the appearance of the same motif on bats' wings, as represented on Nebaj-style polychrome vases and other decorated ceramics of the Classic Period (Figure 7.6).

For many years before the **CH'EEN** reading suggested itself, there existed strong indications that the "impinged bone" hieroglyph served in some way as a location sign, because of its very close association with place names (Stuart and Houston 1994:12–13). For example, the sign may follow the verbal sign **OCH**, meaning "to enter," where it must somehow specify a place that is enclosed or that is hollow. A parallel verb phrase in the inscriptions is **OCH-WITZ**, meaning "enters the mountain" (Figure 7.7), referring, perhaps, to the descent into a cave for some sort of ancestral ritual. The sign also often takes the locative prefix sign **tu**-, for *t-u-* "in his/her its . . . ," sometimes in association with different

verbs. On an inscription on Panel 1 from El Cayo, for example, we find the verb phrase *muhk-aj t-u-?,* meaning "he was interred in his 'x'," possibly in reference to the burial of an individual within a cave. In other instances, we find the prefix **TAHN-na**, for *tahn-,* "within . . . ," before this possible **CH'EEN** sign, as in a recently discovered text from Temple XIX at Palenque (Figure 7.8). In this usage, the bone sign seems to alternate with **HA'**, "water," in parallel texts.

If we consider the evidence in sum, we have the following assumptions with which to work: (a) the sign is a logogram, or word sign, that refers to a kind of location or space into which one can "enter," "sit," or "be buried"; (b) visually, the sign has strong death associations, with a special connection to Underworld and bat symbolism; and (c) the sign's phonetic value ends in the consonant *-n.* Taken together, an attractive hypothesis in agreement with all three points is that we have a sign with the value **CH'EEN**, "cave." Admittedly, other readings might exist, but the convergence of the evidence around "cave" makes considerable sense in the numerous contexts in which we find the sign.

One important example is from a painted text from the walls of the ritual cave of Jolja, Chiapas, which we will feature in our ethnographic treatment of the Chol Maya (see also Alejos García 1994:95; Reise 1981; Stone 1995:87–90; Thompson 1975:xxxvi). The text opens with the revealing phrase (applying the new reading) *hul-iiy t-u-ch'een,* "he arrived in his cave" (Figure 7.9). The walls of the cave exhibit many other Pre-Columbian paintings, including several hieroglyphic texts, indicating that it was a pilgrimage or ritual center in ancient times and continues to be in modern times (Bassie et al. 2002:5–10). This particular inscription would seem to record the "arrival" at Jolja Cave of a Maya lord during the Early Classic Period. It provides an interesting parallel case to more extensive and later texts from Naj Tunich, Guatemala, which record "arrivals" of various visitors over a several-year period (Stone 1995).

An important and recurring ritual term in the inscriptions is *chan ch'een,* "sky-cave." This consistently appears in connection with local toponyms, seemingly to describe some quality or category of place. A typical example is in the architectural dedicatory expression found at Palenque: *pat-l-aj Lakamha' chan ch'een,* "it is built at Lakamha', the 'sky-cave.'" The combination of the terms is curious, and we know of no direct parallel in historical Mayan languages. Nonetheless, it is interesting to entertain the possibility that "sky-cave" presents a spatial opposition that indicates some universal totality, rather like the K'iche' term "mountains-grass." *Chan ch'een* thus may be a Classic Period term corresponding to the idea of "world."

An alternative interpretation is perhaps more interesting and far-reaching in its implications. We have noted that "sky-cave" is intimately associated with local place names, like *Lakamha'* for ancient Palenque. In a great many cases, place names associated with the "sky-cave" references are simply emblem glyph

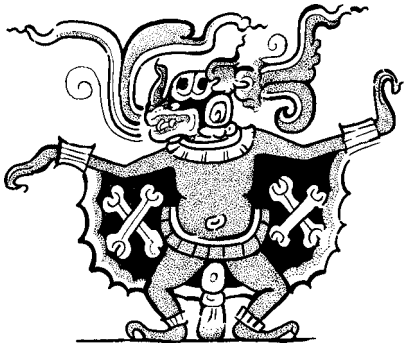


Figure 7.6. "Cave bat" from Nebaj-style polychrome (K4018). After Kerr (1992:452). Drawn by David Stuart.

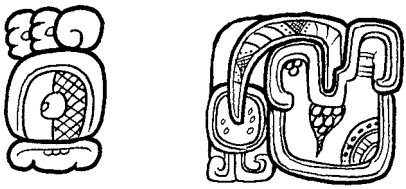


Figure 7.7. Glyphic expressions for *och-ch'een* (a), "enters the cave," and *och-witz* (b), "enters the mountain." Drawn by David Stuart.

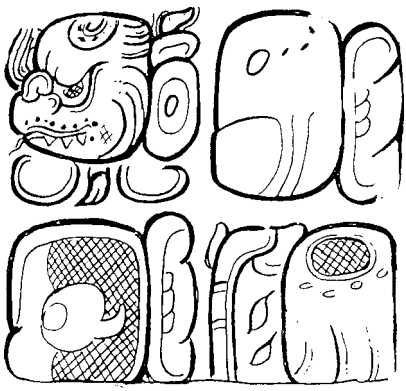


Figure 7.8. The expression *ut-iiy tahn ch'een,* "it happened before the cave," from the platform of Temple XIX at Palenque. Drawn by David Stuart.

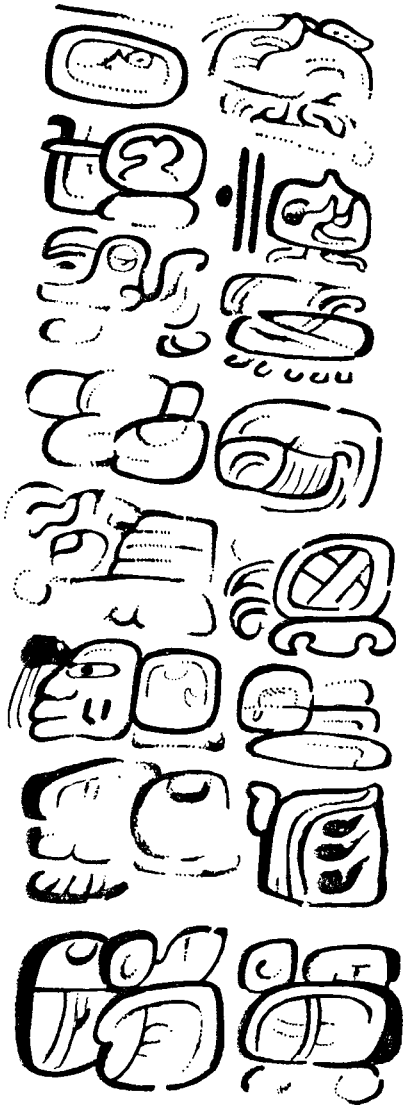


Figure 7.9. Painted text from Joloniel Cave, Chiapas. Drawn by David Stuart, from photographs by Frans Blom.

Figure 7.10. Tikal, Altar 8. Drawn by William R. Coe, after Jones and Satterthwaite (1982:Fig. 30).

signs that we know refer to individual political units or kingdoms (Stuart and Houston 1994). The "caves" mentioned in such references, rather than describing buildings, might be far larger in conceptualization, corresponding to the names for the kingdoms themselves. That is, we see some evidence to suggest that a good many place names in the Classic inscriptions, including emblem glyphs or polity names, are specified as *cave names* in origin.

The well-known emblem glyph of Tikal, for example, was probably read **MUT** or **MUTUL** in ancient times and appears with the sign **CH'EEN** in a variety of inscriptions (Figure 7.10). One setting is in the simple statement *tan-ch'een Mutul*, "inside the cave of Mutul." In another context, the glyphic place name Yax Mutul is graphically fused with the owl-like head variant of the **CH'EEN** sign to indicate the cave location of a bound captive who, presumably, is about to be sacrificed. The sacrificial rites within caves that are so apparent ar-

chaeologically might therefore be directly portrayed in Classic representational art.

The importance of springs and water holes—an important type of feature subsumed under the word *ch'een*—comes through very clearly in the Classic architecture and inscriptions. An important text discovered in 1998 in Temple XIX at Palenque (see Figure 7.8) closes with the dedicatory phrase *ut-iy tan ch'een Lakamha',* "it happened before the *ch'een* at Lakamha'," referring, it would seem, to a culminating ritual which took place at or within the building. Interestingly, Temple XIX is located directly in front of the mountain spring from which emanates the Otulum stream, passing through the heart of Palenque's ceremonial center. Lakamha', "Large Waters," was the name of Palenque in ancient times and probably more specifically applied to the present-day Otulum. The construction of the site of Palenque around this stream and its point of emergence from the mountain very likely says something about the spring's ceremonial and conceptual importance.

A similar architectural pattern can be seen at Dos Pilas, Guatemala, where the major acropoli of Dos Pilas's center and the neighboring complex of El Duende were oriented northward to align directly with conspicuous, upwelling springs (Stephen Houston, personal communication, 1990; Brady 1997). It can be no coincidence that the toponyms associated with these acropoli are based on the word *ha',* just as we find at Palenque (Stuart and Houston 1994). Moreover, the references to these places in the Classic inscriptions routinely refer to them as *ch'een,* in this instance, probably meaning "spring," although large caves are also associated with these groups (Brady 1997).

The associations of caves with the ancient ceremonies of rainmaking are well established, at least in some areas of the Maya Lowlands (Andrews 1970). One very important example is La Pailita Cave, located in the central Petén of Guatemala and reported by Graham (1997). Inside the low overhanging shelter was a "life-size" masonry effigy of the rain god Chaak, seated on a throne and covered with modeled stucco. The figure held an axe against his chest and was wearing a breechclout, a pectoral ornament, and elaborate earspools. Its style and the vast numbers of sherds found nearby suggest a Late Preclassic or Early Classic date for the sculpture and many of its associated ritual activities.

In the Classic Maya evidence, we therefore see that toponyms corresponding to individual communities or, sometimes, to larger polities were identified, in large part, with caves or, by extension, springs. We believe that this pattern in the Classic sources is a direct reflection of the ancient Maya (and Mesoamerican) belief pattern in which caves are seen as places of political and communal foundation. In the following section we describe specific manifestations of these beliefs as they are found among traditional Maya communities of Highland Chiapas.

Ethnographic Patterns

Tzotzil Maya

The rugged limestone and volcanic mountain terrain reaching into the clouds of Highland Chiapas is the visible surface of the Tzotzil world, a large quincunx in quadrilateral form called Balamil. The center of this visible world is a "navel," located in the ceremonial centers of each of the contemporary *municipios.* The world rests on the shoulders of the Vashak-men, the local version of the "four-corner gods" or "sky bearers." Vinahel, "the sky" above the earth, is the domain of the sun, the moon, and the stars. 'Olon Balamil, the Lower- or Underworld, is also a quincunx. The visible sacred world is characterized by strong emphasis on two basic features of the natural topography: *witz* and *ch'een.*

Almost all the mountains and hills near Tzotzil settlements are the homes of Totil-me'iletik (literally, "Fathers-Mothers"), or ancestral gods. They are the remote ancestors of the living and are the most important deities, judging by the frequency with which people think about them, pray to them, and perform rituals dedicated to them. They are pictured as elderly Tzotzil Maya living eternally in their mountain homes.

Next to the ancestral gods, the most important deity is Yahval Balamil, the "Earth Owner," who lives inside the earth. Obviously descended, with some transformations, from a Pre-Columbian Underworld god, Yahval Balamil is now pictured in many Tzotzil communities as a large, fat Ladino living underground with piles of money, herds of cows, mules, horses, and flocks of chickens (Vogt 1969, 1981, 1993). He also owns all the water holes and controls the lightning and the clouds—believed to emerge from caves—as well as all the products of the earth that people use—trees cut to build houses, mud used for walls, limestone for lime, and so on.

In Zinacanteco belief, the Earth Owner rides on a deer and uses iguanas as blinders for his mount and a snake for a whip. The shell of a land snail is his powder horn for making skyrockets and shooting his shotgun, both of which are the bolts of lightning. It follows that one cannot use land, or any of its products, without compensating the Earth Owner with appropriate ceremonial offerings.

Vogt has had a number of interesting conversations in which he has attempted to convince Zinacantecos that clouds form in the air, rather than in caves. One of these conversations took place in a hamlet on the rim of the Chiapas highlands while watching storm clouds in the Grijalva River Lowlands several thousand feet below. Vogt finally had to concede that, given the empirical evidence available to Zinacantecos living in their highland terrain, their explanation does make sense. For, as the clouds formed rapidly in the air and then streamed up and over the highland ridges in much the same way that fog

comes in from the Pacific and pours over the coastal range in northern California, they did give the impression of coming up from caves on the slopes of the Chiapas highlands. Given the Zinacanteco's premises and the evidence observable from the day-to-day behavior of clouds, their belief is understandable (Vogt 1969:387).

The Zinacanteco caves are visited and ceremonies performed there annually. To illustrate: 'Avan Ch'en (He Shouted Cave, named for an episode in a myth that relates how the Earth Owner came to the door of the cave and shouted) is one of the important caves visited by the procession of shamans from the water-hole group called Bik'it Vo' (Small Water, from the water hole's diminutive size) in the hamlet of Paste'. Here, during the K'in Krus (Day of the Cross) ceremony in early May at the end of the dry season, the shamans offer candles, copal incense, and lengthy prayers that urgently petition the Earth Owner to send the summer rains (Vogt 1969).

Every Zinacanteco *ch'een* provides a means of communication with the Earth Owner, but this communication is regarded with the deepest ambivalence. On the one hand, there are glorious myths about how men have acquired great wealth in money and livestock by entering caves to visit him. Perhaps the most familiar tale relates how a man emerged from 'Avan Ch'en with a silver crucifix and sacks full of coins loaded on a mule. He met a local Ladino, who was astonished by the Zinacanteco's riches and challenged him to compare wealth. As they unloaded and counted their respective piles of coins, the Maya's pile grew larger and larger and outstripped that of the Ladino. The magical crucifix he had acquired from the Earth Owner made money (a scarce commodity) for the Maya!

On the other hand, Yahval Balamil needs many workers, and there is always the danger that a man may be captured and forced to work inside the earth until the iron sandals provided by the Earth Owner wear out. Furthermore, evil Zinacantecos practicing witchcraft may enter caves and sell the souls of their victims to Yahval Balamil. Indeed, a really dangerous witch can sell the souls of *entire* hamlets to the Earth Owner.

This ambivalence—a combination of hopeful enticement and sheer terror—that Zinacantecos have toward caves and Yahval Balamil is well illustrated by an excerpt from Vogt's field journal on the all-night lineage and water-hole ceremonies performed in the hamlet of Paste'. These include prayers and offerings to the four-corner gods, to the ancestors, and to the Earth Owner. Vogt has participated in a number of these all-night affairs. Here is a quote from his journal of May 6, 1960 (Vogt 1969:694–695):

> At 4:30 A.M., the procession of shamans climbed down the steep trail to *Bankilal Sch'ut Ch'en* (literally "older brother his stomach cave") which is a deep

> limestone sink. Here the ritual had some very special aspects. The shamans were much quieter, and there was an aura of fear hovering over the procession. With piles of copal incense burning in the censers, the candle offerings were tied together and stuck up into a natural hole in a limestone rock which is said to be the huge stomach of *Yahval Balamil,* himself! The chanting of the prayers seemed endless, especially on the part of . . . the shaman who specializes in curing people who have had their souls "sold" to the earth-owner.

The most common form of witchcraft in Zinacantan is *'ak'chamel,* literally, "giving illness." Shamans called *h'ak'chamel h'ilol* are specialists in giving illness and also in counterwitchcraft, that is, throwing the illness back at one's enemy. These witchcraft rituals are performed in front of crosses in caves near the hamlets in which the participants live. The ritual may consist of using small candles of seven colors, which the shamans cut in half and light upside down; alternatively, they cut the small candles into thirteen pieces and burn them as they say their evil prayers (Vogt 1969:406–410).

In the Tzotzil Maya *municipio* of Chamula, the earth is believed to be laced with caves and tunnels which eventually reach its edges. Earth Owners live in the mountain caves and provide all forms of precipitation, including the associated clouds, lightning, and thunder. Snakes are the familiars and the alternate forms of Earth Owners. Only Earth Owners, snakes, and demons inhabit the internal cave networks of the earth (Figure 7.11) (Gossen 1974:21).

In the Chamula worldview, caves are also symbolically linked to the sweat baths that every household builds and customarily utilizes daily for family baths. The sweat bath–as-cave is a strong association in Chamula, and there is a rock shelter in the hamlet of Laguna Petej called Pus Ch'en (Sweat-Bath Cave), which is said to represent an Underworld sweat bath where the sins of the dead are baked away before judgment (Groark 1997:26).

Moss Mountain (Tzontevitz), the highest in the central Chiapas highlands and the most sacred of all mountains to the people of Chamula, lies to the east of the ceremonial center and within Barrio San Juan, the highest-ranking of the three barrios (Gossen 1974:20). The co-essences, or animal-spirit companions, of the Chamula have two aspects, a senior and a junior. The senior aspect lives in a corral on the third level of the sky, where it is tended by the senior aspect of Saint Jerome (a saint often shown in Spanish images with a lion lying at his feet), known in Tzotzil as Totik Bolom (Our Father Jaguar). The junior aspect of the animal spirit lives in a corral in Moss Mountain, where it is tended by the junior aspect of Saint Jerome (Gossen 1975:450–451).

In Chamula the shrine on the summit of Moss Mountain consists of a cave on the western side of the mountaintop. The crosses are placed inside the cave in such a manner that Chamula praying to the crosses face east toward the rising sun. According to Gossen (1999a:15–16), Moss Mountain is the ances-

Figure 7.11. A Chamula Tzotzil converses with the Earth Owner and his wife in a cave home. Note the wings on the female, which express the association of earth owners with angels; also note the snake, which is the familiar of the earth owners. Drawn by Marian López Calixto, after Gossen (1999a:Fig. 2).

tral home of San Juan, the patron saint of Chamula, in both his senior and his junior aspects, and this cave opening is called "San Juan's window." Gossen adds (1999a:15–16): "Although they built the church in San Juan Chamula together, the senior aspect of this saint retired to this mountain home once the community was founded . . . This mountain, and the shrine at San Juan's Window, therefore, mark the sacred abode of the community's principal ancestor and also the dwelling place of animal alter egos of all of the living . . . [San Juan] is, quite literally, the 'oldest' Chamula ancestor whose soul is greeted on the Days of the Dead."

According to Linn (personal communication, August 8, 1998), Chamula cur-

ing parties visit the shrine on top of Moss Mountain and leave offerings when an illness is especially serious—for example, if the animal soul is in grave danger or if the patient is under the spell of a strong witch. Cargo holders also visit the shrine on Saint Jerome's (Father Jaguar's) Day, decorate the crosses, and leave offerings. Gossen (personal communication, August 7, 1998) adds that following the 1994 Zapatista takeover of San Cristóbal, the Chamula cargo holders, accompanied by the shamans, made a pilgrimage to the Moss Mountain shrine to enlist the aid of the mountain gods in keeping the Zapatistas out of Chamula.

The similarities in cosmological symbolism between the Chamula San Juan's Window on top of the most important sacred mountain and the temple-shrines of Classic Maya pyramids—possibly the *chan ch'een,* sky-cave, mentioned in Classic Maya glyphs—is striking. We suggest that there is an unmistakable continuity here from the temple-shrines atop Classic Maya pyramids to the concept underlying San Juan's Window in contemporary Chamula. We also suggest that the symbolic linkage of sweat baths to caves in Chamula may be another continuity from the symbolic sweat baths that Houston (1996) proposes were the function of the sanctuaries inside the temples of the Cross Group at Palenque in the Classic Period. Significantly, these sanctuaries are replete with "cave" hieroglyphs, and the iconography displayed within the Temple of the Foliated Cross, in particular, marks its space as an artificial cave.

According to Holland (1962), mountains have a crucial role to play in San Andrés Larrainzar, another Tzotzil community:

> These sacred mountains are referred to as *ch'iebal* in Larrainzar, and as *ch'ibal* in other Tzotzil dialects[2] . . . Conceptually then, the sacred mountains may suggest the family tree and mythological places of origin of their respective patrilineages. The companion animals of the same patrilineage all occupy the same sacred mountain . . . The sacred mountains, like the heavens of the Maya, have 13 horizontal levels. For the Tzotzil, the sacred mountains symbolize the sky, and to ascend one is tantamount to rising into the heavens. Each level is presided over by distinct ancestor gods. The strata of the sky are presumed connected by the sacred cottonwood tree; while those of the sacred mountains are imagined as linked from bottom to top by a huge stairway, in many ways suggesting the ancient Maya pyramids. Each level has a certain number of companion animals which correspond to specific individuals in the patrilineage. Each companion animal has a specially designated stool; pine needles with flowers are scattered about the floor, and each seat is surrounded on three sides by pine branches . . . The social relations of the spirit world are rigidly structured along generational lines just as they are in Tzotzil society. The companion animals of the elders and curers are lineage gods which occupy the highest level of the sacred mountain . . . they protect and defend their inferiors by providing

for their physical needs and curing their illnesses, and in this capacity they act as intermediaries between men and the gods.

The elders are responsible for punishing transgressors with witchcraft. In this capacity, they transform themselves into malevolent entities, such as owls, hummingbirds, eagles, king vultures, butterflies, rainbows, whirlwinds, and balls of fire, and appear to their enemies as omens of death. The companion animals, or *naguales,* of the most powerful *principales* (elites) of Larrainzar occupy the most important seats in the thirteenth level of the sacred mountain. The companion animal of the *principal* of *principales,* a giant jaguar, has the most imposing position, from which he consults directly with the ancestor gods in matters concerning the rule of his inferiors. Holland (1962:6–8) adds: "Adams' (1961) archaeological survey shows that the Classic Maya migrants into highland Chiapas settled on steep ridgelines, bluffs, hilltops, and sharp pinnacles, probably for defensive reasons. In late Post-Classic times there was a shift from these headland settlements to more concentrated settlements around the larger valleys, probably accompanied by the dispersed hamlet pattern. As this happened, the original headland settlements may have evolved into the sacred mountains and places where ancestor worship developed."

Tugrul Uke (1970) has published an interesting account of a counterwitchcraft ceremony he witnessed in a cave near San Andrés Larrainzar center. Using *aguardiente,* copal incense, and white candles and praying before a large cross inside the cave, the San Andrés Larrainzar shaman and his wife reportedly succeeded in "cutting the hour" of (i.e., ritually killing) three enemies who were attempting to kill him. The photos of the shaman and his wife performing the ceremony are especially vivid.

Guiteras-Holmes (1994:60–62) reports that in the Tzotzil *municipio* of Chenalho the rain clouds come from caves in the mountains that are doors to the abode of the Rain God, who is called Anhel.[3] A small frog, called X'antun, is the custodian of access to the caves. On certain days the doors to the caves are open, which means, on the one hand, that the caves are dangerous, because people are exposed to direct contact with the beings who have the power to punish them. On the other hand, it is on these days that prayers may be received by the rain gods. At the three agricultural ceremonies performed each year, the people gather on the hillsides to fire off skyrockets to urge X'antun to open the doors of the house of Anhel so that he can be prayed to directly and people can ask for life and sustenance from the Holy Earth. Guiteras-Holmes (1994:60) adds, "Anhel is the rain god, the lord of the mountains, the corn-giver, the master of beasts, and the god of the waters. He watches over the cornfields planted around the foot of the mountains and on the summits and procures the necessary rain for them." Anhel is owner of the thunderbolt produced by pounding

on his drum. He appears in dreams as a saint image or a man. Some nights he is perceived as a head rimmed by fire and with a long tail. His instrument is the lightning bolt, which is said to be his *wayhel,* or co-essence. Anhel is one and multiple. He inhabits a single mountain and all of them (Guiteras-Holmes 1961:290; 1994:60–61).

The maiden mother of maize, X'ob, is the beautiful daughter of Lord of the Mountains and the Rain, the daughter of Anhel. She gives people the ability to eat maize, the *ch'ulel,* or inner soul, of their sustenance. She is both one and infinite. There is a *x'ob* for every cornfield, for each ear of corn (Guiteras-Holmes 1994:62).

Totilme'il is the father-mother of life, an ancestor. In his animal epiphany, the hummingbird, he is guardian and preserver of people (Guiteras-Holmes 1961:292). When the world was inhabited by gods, the *totil-me'il* lived on the earth (Guiteras-Holmes 1994:63).

Kohler (1995:18–19) describes the mountain gods of another Tzotzil community, Chalchihuitan, as being *yahwal witz,* or "owners of the mountains"; they are also called *anhel.* They live in the interior of the approximately one hundred sacred mountains in the Chalchihuitan region. *Anhel* also means "lightning," which serves as the guns of the mountain gods. The mountain gods are owners of important animals hunted for meat; they are the providers of rain; and they are guardians of the vital essence of maize, the *shch'ulel 'ishim.* These gods resemble Ladino ranchers engaged in keeping livestock, but their corrals do not contain cattle; rather, they contain white-tailed and red (brocket) deer. The white-tailed deer serve as their mounts. Snakes and toads guard their residences. From the mountains the gods send clouds and rain.

In a myth, one of the mountain gods has three daughters: Me' Bot, or Mother of Hail; Me' Taiv, or Mother of Frost; and Me' Chom, or Mother of the Cornfields. The last resembles an *indígena;* the other two are Ladinas. The three of them eat only incense and candles.

The mountain gods have diverse characters; some are magnanimous; others are miserly. Together with the sun god, these mountain gods are most commonly prayed to in agrarian ceremonies and also for treatment of illness.

Tzeltal Maya

Reporting on the Tzeltal *municipio* of Oxchuc, Villa Rojas (1969:205) emphasizes the importance of sacred caves: "Each *paraje* is bound by religious ties to a given cave where a cross, the supreme sacred symbol, is kept. The name of the *paraje* is generally taken from the name of the cave. Sacred caves of secondary importance also exist. The mystical regard for caves is based in the belief that they are the places from which issues the lightning to punish the natural

elements (hail, wind, storms) which often threaten and destroy the cornfields." He adds (1969:215), "A few generations ago the most distinguished members of each lineage were buried in the cave after which the *paraje* was named, the bones and ashes of the dead being placed in large jugs or urns . . . These caves are still places for worship but not for burials, the cross connecting all members of the lineage is kept there, as well as, in some instances, small crosses belonging to important members."

Some of the best data on the Tzeltal come from Pitarch Ramon (1993, 1996) and his work in Cancuc. He reports that the *ch'ulel,* or inner soul, of a person is found in the heart and also in a cave in the interior of a mountain. There are four of these caves, each occupied by the inner souls of members of the four phratries that comprise patrilineal clans.

The sacred mountains are located outside the territory of Cancuc in what is conceived of as the directions of the four corners of their world (Pitarch Ramon 1996:35–36). All these sacred mountains are pyramidal in form and divided into thirteen horizontal levels. On the three upper levels are the inner souls of the Cancuqueros: the top level comprises the eldest; the second level down, persons aged twenty to forty; and the third level down, persons under twenty years of age (Pitarch Ramon 1996:37–38). The *ch'iibal* is a "nursery of souls," a "garden of infancy." In this *ch'iibal* the souls of infants of all of the phratries are embraced and cared for; they are nursed by women older than twenty, carried around by women under twenty, while men bring food, play with them, and take them on journeys. The women who care for the souls of infants are not their Cancuc mothers, but are, rather, their fathers' sisters, because infants belong to the father's phratry in this patrilineal system (Pitarch Ramon 1996:40–41).

In these great houses in the mountains, religious and civil officials are selected and installed. All of these officials are subordinate to a woman called the Muk'ul-Me'el, who is in charge (Pitarch Ramon 1993:53).

Long prayers are chanted for these sacred mountains during curing ceremonies, for example (Pitarch Ramon 1996:38; Vogt's translation):

Holy living mountains,
Venerated living mountains.
Where you are gathered,
Where all of you are,
Holy mothers,
Holy fathers,
Great House,
Great Mansion,
On your benches,
On your stools,

On your [Ladino-style] chairs,
On your large chairs,
With yellow-feathered chickens,
With yellow-haired dogs,
With yellow chairs,
With yellow stools.

Mauer (1983:114–116) reports that the residents of Guaquitepec, a Tzeltal community in the *municipio* of Chilon, believe that the mountains are alive and are the seat of a great power—*bayel stul*. The mountains, called *ch'ul witz* (*ch'ul* is the Tzotzil word for "holy" or "sacred"), are the fountains of life for the people; it is there that they plant maize, gather firewood, and draw their water, which gushes out from the mountains. Three or four mountains are "really alive" (Mauer 1983:116), and their caves are residences for the Virgin—the mother of maize, the Angel—the protector of wildlife, as well as various saints and a cross. The people are afraid to enter these caves except to make offerings and pray, because the mountain gods might become angry and shut the doors to the caves. The earth, Ch'ul Lum, is considered to be a benefactor, but also wishes to consume everything it produces. Lightning is called Chahwk, and is considered to be the wife of the Ajaw, the Lord of the Cave.

Nash (1970:5–6, 23–26, Pl. 1 and 2) reports that the Amatenango ancestors, Me'tik-Tatik, live in a cave in a sacred mountain called Amawitz located northwest of the center. On the summit of this mountain is a rock supporting a shrine called Hol Shan (Head of Palm). Behind this shrine is the Cave of the Ancestors, in which the ancestors are believed to live. It was from the mouth of this cave that the ancestors looked out over the valley and advised the people to settle in the valley below, where there was a better water supply than on the mountain. On the Day of the Cross, May 3, the shamans and religious officials traditionally visited the Cave of the Ancestors to light candles and incense. The leading shamans went into the cave, where there was a lake and a beautiful field, to ask the ancestors for rain and good crops; then they emerged and told the people what the ancestors had said.

According to Hermitte (1964:54–59), the caves in the hills surrounding the Tzeltal community of Pinola are inhabited by many powerful deities—Thunderbolt, Meteor, Whirlwind, and the Sombrerón (Man with the Big Hat)—all making these places dangerous for ordinary persons. Thunderbolt and Meteor also reside in water holes. The animal-spirit companions are kept in the caves and guarded by the powerful deities. These animal companions are fed special food by the toad, who is the wife of Thunderbolt. Thunderbolt is the chief of everything; Sombrerón is the shepherd of the wild animals. It was customary in the old days to say a prayer to Thunderbolt and Sombrerón to request their

permission before hunting animals in the woods. The caves are far from each other, but the souls that inhabit them can communicate easily by flying or by traveling along subterranean passages between caves.

Tojolabal Maya

While there is scant information on sacred mountains and caves per se in the ethnological reports on the Tojolabal, early archaeological reports by Blom (1954) and Johnson (1954) give accounts of caves in which were discovered urns containing human ashes (from cremation), human bones, as well as textile fragments in a pot in Chiptik Cave. Lenkersdorf and Van Der Haar (1998) suggest that Chiptik Cave may be Cueva Chawal, in which the contemporary Tojolabal perform ceremonies (see below).

Humberto Ruz (1982:63) reports on a supernatural figure called Niwan Pukuj (Large Demon), or Niwan Winik (Large Man), who dwells in a large cave. He sits on an armadillo and has a large deer as a mount.

Lenkersdorf (1996) and Lenkersdorf and Van Der Haar (1998) also emphasize the importance of sacred caves where ceremonies are held, especially for K'in Mayo (La Fiesta de Mayo), beginning on May 3 and lasting until May 9. In the community of San Miguel Chiptik these rituals take place at 'Olom Ha (Cabeza de Agua—Headwater), a spring at the base of a mountain where a small river with a swift current originates, as well as at the Cueva Chawal, which is located on the side of a mountain and believed to be the home of San Miguel Arcángel, the patron saint of the community. The rituals include processions to the caves in which men carry banners that are kept in the church (along with the flutes and drums). Flutes, drums, violins, and guitars are played; both men and women dance; skyrockets are fired; copal incense is burned; and prayers are offered to San Miguel. On May 4 there is a pilgrimage to the fields to make offerings and pray for the crops. On May 8 men ride horses and attempt to run lances through rings suspended from a rope held by two forked poles (Lenkersdorf and Van Der Haar 1998:101–104).

Lenkersdorf (1996) also has one reference to mountains as *tantik witz,* or "fathers mountains." He suggests that mountains may be viewed as part of a life-giving cosmos which require respect from humans. Hence, the worship at caves provides access to the givers of life and springs of water (some emanating from caves), which are the vital sources of water for the region.

Chol Maya

Pérez Chacón (1988:214–215) reports that for the Chol community of Tila the mountain called San Antonio contains San Antonio Cave, which has a cross

and a stone image of the Señor de Tila, a black Christ figure that now serves as the patron saint of Tila.

Holy water is believed to emerge from the head of the stone image in the cave. This cave is visited to make offerings for crop fertility and to cure illness. Based on data from a Q'eqchi'-Maya informant, Burnett et al. (2002) report a belief that the rocks in caves "are alive" and that the water emerging from stone images in caves is conceived as the sweat of Mother Earth. They also report that stalactites are believed to be breasts, and likening the dripping of water onto the ground to the "breast-feeding" of the earth. Stalagmites are called erect penises, and when the two cave formations meet, a man and a woman are mating—all of which are powerful symbols of fertility. It is no wonder that the Maya break off pieces of these cave formations and place them on their family altars.

A myth about the origin of the church of Señor Tila is related in the community. There were three attempts to build the church. The first was at Misija, but the site was visited by Señor Tila, and he was displeased because the location was too humid. The second attempt occurred at Chulum Chico, which Señor Tila decided had too many anthills. The third unsuccessful attempt took place in the cemetery of the town of Tila, but Señor Tila did not like this site either. Finally, on the fourth try the present site of the church met with Señor Tila's approval. But then people from San Cristóbal came to make off with the riches in the church, so Señor Tila left to hide in the cave in San Antonio Mountain. After some time elapsed, Señor Tila returned to his proper niche in the church, which is the site of large pilgrimages every year in January (Pérez Chacón 1988:308–315).

According to Whittaker and Warkentin (1965:81–85), as happens among the Tojolabal, Chol men and women perform ritual dances in sacred caves, but these occasions often result in adultery when the women's round skirts come off and the men throw the women down (i.e., copulate with them), either in the caves or in the woods on the way home. Whittaker and Warkentin (1965:135–138) also describe the "cave god" and the "cave devil," who can grab a person's "*ch'ujlel*" (soul, spirit); it is where the "*ch'ujlel*" of "*xwujt*" (translated as "witch doctor" by the authors) can talk to the cave god who has sold the spirit of an ill person to the devil. When the witch doctor goes into the cave to ask that the spirit of his patient be released, the cave god throws the spirit out flying.

Cruz Guzmán et al. (1978:116) describe how Chol mythology presents the "Owner of the Mountain" as living in a mountain cave where he keeps watch over all the animals.

Jolja Cave near Joloniel, mentioned earlier in connection with the glyphic paintings it contains (see Figure 7.9), has been investigated by Bassie and her colleagues (Bassie et al. 2002; see also Shesena H. 2002), who report that this cave complex actually contains three caves:

> The name Jolja ("at the head of the water") reflects the cave's location at the headwaters of the Istelja River. The headwaters are situated at the 900 meter mark, halfway up the east side of Misopa' Mountain. At this location, the river emerges from a cave mouth on a white cliff face and cascades down a steep gorge into the valley below . . . A second cave mouth is located to the right of the river cave. To the left and slightly higher on the cliff is a third cave. It is this dry passageway that contains the Classic Period mural and inscriptions. The local Chol refer to all three caves as the Cueva de Jolha . . . This cave is still used by the local Chol Maya of the nearby community of Joloniel for their Day of the Cross ceremonies, and attendance at this annual event exceeds 500 people.

Bassie et al. (2002:8–10) also note that the Day of the Cross ceremonies performed by the Chol on May 3 contain many Pre-Columbian elements, because May 3 occurs at the beginning of the rainy season. The setting-up of the cross assures that "the water will start flowing again" in Jolja Cave (see Whittaker and Warkentin 1965:77–78). Bassie et al. also suggest that the Tumbala region was of importance to the Maya for quetzal feathers. The indigenous name for Tumbala was K'uk' Witz (Quetzal Mountain), which, along with other evidence, has led Audrey Korelstein (1988) to hypothesize that male quetzals were trapped for their colorful plumage in this mountainous region at the northern edge of the Chiapas Highlands.

Manca (1995), Marion (1994), and Morales Bermúdez (1999) have deepened and extended our knowledge of the ritual use of Chol sacred caves. Manca, who worked for the Secretaría de Salud Pública in Tila, reports that caves have a special place in Chol culture. They are the dwelling places of *xibaj* (evil spirits) as well as of *witz chen* (good spirits), the place of origin of the Chol people themselves, and of the Black Christ (the patron saint of Tila); they are also the site of trials that make up the rite of passage for a person becoming a *xjut* (shaman) and the place where the shamans take their patients for curing ceremonies. In the origin myth of the Chol, Ch'ujtiat (Holy Father, who is both primeval father and mother) created the earth by taking it out of his navel. The earth was very soft at the beginning, softer than water or a cloud, more like a soft breeze. Symbolically, Ch'ujtiat's stomach, full of new life, was like a cave. In Chol, a cave is called *ch'en tun,* literally, "hole rock." A cave near Tumbala became a privileged place where the ancestors of the Chol were born and where they settled. In Tila the patron saint is the Black Christ, who appeared in a nearby cave (Manca 1995:224–225).

Another important origin myth reported by Manca (1995:225–226) is that of the *tigre* (jaguar). When the hero twins were traveling over the earth, they encountered a large cave with many rocks in the form of jaguars. Only one of

the twins had the courage to touch one of the jaguar rocks, which turned into a live jaguar. The other twin was so jealous that he killed his brother and threw him toward a lake. The jaguar watched and then approached the dead brother and brought him back to life. After that, the jaguar was his constant companion, his *nagual*. The jaguar is the most powerful animal companion and always serves as the spirit companion of a Chol shaman.

The myth also describes how Ch'ujtiat first found maize in a cave. A bolt of green lightning cracked open a rock under which he discovered kernels of maize (Manca 1995:226).

Caves also have a crucial role to play in the making of a Chol shaman (Manca 1995:229). A novice shaman not only pays his respects to the saints in the churches, including the important Black Christ, but also must also show his courage by meeting the spirits of the Underworld in a journey through the cave called Tumbuluch, or Cha'ba Otiot (Sacred House) by people living in Tila. This cave is located on the southwestern edge of the town of Tila, according to Bassie (personal communication, May 30, 2002), who reports that Tumbuluch is the name of a stream that flows adjacent to the cave and that the local people call the cave Cha'ba Otiot. Further, the novice must visit Uran, the Lord of the Mountains, the Lightning, and the Animals. The animals are ferocious until they are calmed by Uran after he receives two bottles of *aguardiente* and grants the novice shaman's request that he be taught how to cure illness. In the curing rituals performed after this experience, the shaman takes patients into the caves to pray to the Underworld spirits, both the *witz ch'en* (good spirits) and the *xibaj* (the evil spirits).

Ethnographic Patterns and Variations

These ethnographic data clearly highlight the crucial importance of caves and mountains in the cosmology of Highland Chiapas. For the most part, these sacred caves are located at the base, or in the sides, of mountains. Whether caves are also found under, or closely linked to, prominent Pre-Columbian archaeological sites in Chiapas, as Brady (1997:614) hypothesizes for centers in the Maya region, is not yet clear.

The common elements in this ethnographic depiction of the sacred geography that emerge from our Highland Chiapas data include the following:

1. Caves and mountains are closely interrelated geologically and symbolically.
2. The caves and mountains are believed to be inhabited by either the essences (inner souls) or the co-essences (animal-spirit companions), or both, of all living members of the group that pertains to the cave and/or mountain.

3. The souls of living members of the community are "embraced" (i.e., guarded, cared for) by mountain deities described most frequently as ancestors or by the souls of older living members looking after the younger members, especially the infants (see the Cancuc data).
4. The mountain caves are portals to the Underworld and the source of lightning, thunder, clouds, and rain, which are controlled by the mountain gods who live in these caves with their virginal daughters. These daughters spend their time fluffing cotton, which will be transformed into rain clouds by the fertilizing lightning bolt of Anhel. The rain-laden clouds then issue forth from the mouths of caves, beginning the rainy season and bringing life to the land (Morris 1987:105–119). Sometimes the lightning is used to punish living members who have misbehaved, but more often it is employed to bring the rainfall needed for the maize fields. In nearly all cases, important sacred caves are ones from which springs or streams emanate. They provide the crucial water for the household, for livestock, and for garden plots during the long winter dry season.
5. Cave "doors" are believed to be open on certain days, and the entrances are sometimes guarded by toads or snakes. We note that snakes are also commonly seen on Pre-Columbian images of the *witz* (hill) mask.
6. The shrines for communicating with the mountain gods are now almost always Catholic-looking crosses located at the entrances to or inside of caves and at the foot and summit of sacred mountains. Rituals which include offerings of copal incense, rum, and burning candles take place at these cross shrines.
7. Where one mountain is of central importance to a community, it is always located to the east; hence the ritualists face the rising sun when communicating with the gods.

The basic variations we perceive in this Highland Chiapas ethnographic depiction are as follows:

1. In some cases (in Zinacantan and Chamula), a marked differentiation occurs between the Fathers-Mothers ancestral deities living in "houses" inside the mountains and the Earth Owners who inhabit caves. The ancestral Fathers-Mothers are pictured as elderly Indians; the Earth Owners are portrayed as greedy Ladino landowners.
2. Some communities (San Andrés Larrainzar and Cancuc) believe mountains have levels like pyramids and describe the higher levels as containing the co-essences of the eldest and most powerful members of the communities.
3. Some (San Andrés Larrainzar, Oxchuc, Cancuc) believe the animal-spirit companions of different patrilineages inhabit different caves or mountains;

others (Chamula, Zinacantan) report that all of the co-essences dwell in one mountain. Further, Zinacantecos report that while all of the co-essences are kept in four corrals in the mountain east of the ceremonial center, ancestral deities inhabit both mountains located around the center and local hills that are the abodes of ancestors of water-hole groups and patrilineages.

4. Some (Chalchihuitan, according to Kohler 1995) do not have ancestors inhabiting sacred mountains, but do have mountain gods who are owners of wild animals such as deer that are ridden by these gods.
5. The use of caves for shamans' performance of witchcraft ceremonies has been reported for Zinacantan (Vogt 1969:406–412) and San Andrés Larrainzar (Uke 1970), but is undoubtedly widespread in the Chiapas Highlands.
6. Manca's interesting data on the Chol (1995) add a number of distinctive patterns that merit further investigation in the Tzotzil and Tzeltal communities of Highland Chiapas. These patterns include the belief that the Chol people originated in a cave; that the patron saint, as well as the jaguar which serves as an animal-spirit companion, especially for shamans, and the first maize seeds were all found in caves; and that caves are involved in the initiation of new shamans, who must make a journey through a large cave and display courage in encounters with the spirits of the Underworld. Later, these shamans take their patients into caves as a crucial part of curing ceremonies.

This variation we now see in the Chiapas highlands is most probably the result of different historical episodes in the encounter between the Pre-Columbian Maya and the conquering Spaniards. There has been, to use Watanabe's (1990) felicitous phrase, "recombinant patterning" in Maya syncretism. The syncretism of Maya and Spanish elements in the concepts of ancestors and Earth Owners living in caves in sacred mountains serves to situate contemporary Maya communities morally, historically, and physically. As Watanabe (1990:144) writes about saints, ancestors, and Earth Owners, "Saints substantiate the ongoing vitality of local life; ancestors anchor the ever-changing present into the undeniable precedents of the past; and earth owners personify inescapable encompassments by natural as well as human realities." These human realities include, of course, Ladinos' control of the political and economic system, as well as their large landholdings in many parts of Chiapas. Hence, the Earth Owner is now perceived as a greedy landowner by many of the contemporary Maya.

The Tzotzil and Tzeltal Maya approach to variation from community to community concurs with the interpretation offered by Gillespie and Joyce (1998) of the fluidity found in the Pre-Columbian Maya deity imagery. The authors view the Pre-Columbian deities pictured and described in the sculptural iconog-

raphy and glyphs as serving as metaphorical representations of dynamic social and cosmic processes. The contemporary Earth Owner may be variously perceived as a mountain god who controls the lightning, thunder, clouds, and rain for the Maya crops; as an angry ancestral god who uses lightning bolts to punish unacceptable behavior; or as a fat, greedy Ladino landowner who needs many workers on his plantations and requires those whose souls have been "sold" to him to work until the iron huaraches he provides wear out.

Conclusions

By their very structure, caves in the limestone formations of Maya country are passageways between the visible world of the earth's surface and the interior of mountains and the nether regions of the Underworld. In this borderline position, caves are prime examples of the boundary between the natural and the supernatural, between the human and the superhuman domains of the Maya cosmos. Turner (1964) and Leach (1964), among others, posited that these ambiguous, boundary-line settings were sacred and generated taboos and rituals in human societies.

Pre-Columbian and contemporary Maya data reinforce this hypothesis. The Pre-Columbian use of caves for elaborate rituals has now been widely demonstrated. As Brady (1997:603) describes so cogently, "the most sacred locations are those that combine the fundamental elements of earth and water in a unified sacred expression of the power of the earth . . . the cenote, a cave feature, defines the center. According to Eliade (1969:37–47), the center is where the three levels of the universe meet. Caves, as breaks in the earth's surface, were seen by the Maya as entry points into the Underworld and, therefore, as features that transcend world levels." A multiplicity of shrines with Catholic-looking crosses at the edge of or in caves near contemporary Maya communities, as well as the widespread use of enigmatic plants, such as the bromeliads, in decorating these cross shrines, underscore this symbolism among the modern Maya.

Bromeliads are "air plants"; that is, they grow on trees, but have no roots in the ground, nor are they parasites. Rather, they derive their water from the mist or raindrops that fall into the plants. They are nourished by leaves from the host tree that drop into a kind of nutritious soup that forms at the base of these plants. Plants that live in the air on the branches of trees, but that are not parasites, form a meaningful, and appropriately ambiguous, symbolic icon for use in rituals performed at the mouths of or in caves at the edge of this world—that is, in the passageways to the supernatural world inside mountains or deep inside the Underworld of the Maya.

Whether or not the Classic Maya utilized bromeliads to decorate shrines at

the entrances to caves, we do not know. But that caves in Maya country were, and are, the focus for elaborate rituals marking the passageways into the Underworld with its earth owners who control the clouds, lightning, thunder, rain, springs, and streams that provide the necessary water for people, animals, and crops, is abundantly clear. As recent hieroglyphic evidence may suggest, however, caves in Classic Maya cosmology were seen as the abode of many types of gods and as the location of important "creation" events (a notion that has obvious parallels elsewhere in Mesoamerica). In these capacities, caves also were key elements in defining the religious and even political identity of ancient urban communities. Future work will refine these interpretations, but both ancient and modern evidence reveals an essential and meaningful continuity in how caves were used and conceived of in Maya thought.

Notes

1. The transcription of Maya hieroglyphic signs (i.e., the **CH'EEN** glyph) follows the widely accepted convention of using boldface to express sign values. (The internal vowel of the Classic word *ch'een* is reconstructed as long, although this is not always seen in modern forms.) Italicized words less specifically apply to modern or Classic Mayan terms or phrases under discussion (i.e., the word *ch'en*). We should also note that for historical and modern Mayan words we have retained the spellings and orthographies of our sources, rather than modifying them for overall consistency.

2. The word *ch'ieb'al* or *ch'ibal* seems to be a noun derived from the root *ch'ih,* "to grow."

3. Anhel is derived from the Spanish word for "angel," introduced in the sixteenth century. It is also used in other Tzotzil communities.

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CHAPTER 8

Shamans, Caves, and the Roles of Ritual Specialists in Maya Society

KEITH M. PRUFER

As physical spaces that can be glossed under the Yukatek term *ch'e'en,* rockshelters, underground passages, and springs all represent places in nature appropriated by the Maya for exercising religious activities related to earth deities and ancestors. Until the 1990s, however, *ch'e'en* did not form an integral part of most discussions of Pre-Columbian Maya society. Since the 1980s, caves have become increasingly recognized in archaeological and epigraphic investigations of settlements and ideology. The rapid evolution of Maya cave archaeology since the 1990s has spurred developments in both field methods and interpretation. Archaeologists are now investigating more specific questions concerning the nature of rituals performed in caves and the types of actors involved in those events.

Initial investigations of caves in the southern Maya region tended to focus on large caves, perhaps because the extensive dark zones facilitated attributing the archaeological contexts to ritual activity. What is needed, but has not yet been achieved, is a detailed examination of how variability in cave morphology, artifact assemblages, and relation to surface sites affects the types of activities conducted in caves. Archaeological, ethnohistorical, and ethnographic data indicate that caves were used for a variety of purposes, including large-scale pilgrimage activities, public politywide ceremonies and validation of space, the seclusion of shamans, mortuary activity, group and individual rituals related to agricultural success, personal health, and the accumulation of wealth and social status (Adams and Brady 1994; Brady and Prufer 1999; Gossen 1974:294; McGee 1990:58–59; Sanmiguel 1994; Schackt 1984:18–19; Villa Rojas 1969:241).

While it is well established that caves used in Pre-Columbian times were the loci of ritual activities, there is a good deal of variation within each cave in terms of patterns of utilization. At a minimum, there appears to be a widespread distinction between twilight-zone public-ritual activities and activities in more restricted dark-zone areas. Brady (1989; also see Brady et al. 1992) first proposed, based on contexts from Naj Tunich, Guatemala, that variability in cave

artifact assemblages between cave zones might reflect the status of participants. He posited that in Naj Tunich's large semilight entrance area, public rituals were conducted and speculated that these might have involved elite community members as protagonists. Conversely, artifact distributions indicated that dark interior cave passages might have been restricted to more private ritual activities, though these activities might also have been intended to facilitate elite ritual agendas. While Brady's distinction appears to be accurate, it addresses only a single dimension of the complex social and religious interrelationships in which cave sites were embedded—those involving elite members of a political organization. In order to understand how a particular cave, or part of a cave, was used, one must address all of the major social components that were operating in that particular situation.

The basic concept that different parts of caves were used for different activities also seems well established (Prufer 2002). If we assume that there are discernible patterns to these activities (reflected in artifacts, cave types, or by comparison or contrast with surface site contexts), the isolation of specific contexts will allow us to investigate those activities more accurately and perhaps identify categories of social actors. It seems likely that ritual specialists were deeply involved in all aspects of cave and rockshelter activities, both public and private. It is also likely that the same ritual specialists were involved in activities at surface sites. However, ritual specialists are notoriously ambiguous, and some of their activities may be more individualized, less public, and less clearly defined in the archaeological record.

I first review the status of ritual specialists called "shamans" in current anthropological thought. The study of ritual and ritual specialists has been fraught with contention and lack of consensus regarding the role of inspirational practitioners in modern and traditional societies and categories and definitions of ritual actors. Next I discuss several ethnographic studies that examine the multiple ways ritual specialists operate in different societies—as actors in political, healing, illness, and formal religious arenas. If we more clearly elucidate the roles of contemporary and historical ritual specialists, it becomes easier to understand how broadly these types of individuals may have affected prehistoric societies. I then examine ethnographic and ethnohistorical data from Mesoamerica to show that regionally based analogical models can inform archaeological interpretation. Finally, drawing on archaeological data from the Maya Mountains of southern Belize, I focus on a number of cave contexts in order to identify variability in artifact and cave types and distributions that may indicate the activities of different types of ritual practitioners.

Ritual Specialists in Anthropological Perspective

The discussion of ancient Maya cave use almost always refers to some type of specialized religious activity and, therefore, in all likelihood, to the actions of ritual specialists. Since the role of ritual specialists in nonindustrial societies has received considerable attention in the anthropological literature, this has strongly influenced the way archaeologists interpret contexts considered to have been utilized by such specialists. They play an important role in both technologically modern and traditional societies, and examination of ethnographic studies indicates that ritual specialists operate in multiple ways in different societies.

Here, I refer to the specialists involved in many ritual cave activities as "shamans." I do not do this without acknowledging that there has been a great deal of criticism of the use of this term to describe a wide range of ritual specialists, and that there are problems associated with generalized cultural evolution that tend to obfuscate religious complexity (Geertz 1966; Taussig 1980:221). Among the strongest criticisms is that "shamanism" refers to a specific type of inspirational religious practice found only in archaic, minimally complex tribal societies, primarily in Siberia, where the term was coined (Hamayon 1994; Laufer 1917). However, since the term has gained wide currency in describing the activities of many types inspirational religious practitioners, I follow the lead of Thomas and Humphrey (1994:3), who assert that replacing the problematic term "shaman" will not lead to "more conceptual precision."

The study of shamanism, among the many forms of religious expression, has remained one of most widely addressed and, sadly, one of the least agreed upon. Durkheimian and Weberian focuses on the sacred versus the profane and on evolutionary processes of the rationalization of religion have tended to cast the subject of ritual specialists into ahistorical and decontexualized frameworks. These ignore the imbeddedness of different forms of religious expression in society and replace historical contexts of multifaceted and changing ritual behaviors with laundry lists of typological features.

Eliade (1964:182), perhaps the authority most frequently cited by archaeologists, has described the shamanic practice as "psychopomp," the practitioners as guardians of the human soul, and their practice, shamanism, as a "technique of ecstasy." This shamanic ecstasy "signifies the soul's flight to heaven, its wanderings about the earth, or its descent into the subterranean world, among the dead" (Eliade 1964:8). Eliade's shamans undertake these ecstatic journeys for four reasons: first, to meet the celestial god face to face and bring him an offering from the community; second, to seek the soul of a sick man; third, to guide the soul of a dead man to its new abode; or fourth, to add to their knowledge by contacting higher nonhuman beings (1987:205).

In his discussion of North American shamanism, Eliade (1964:298–299), on

the one hand, accepts Park's (1934) definition of shamanism as "all the practices by which supernatural power may be acquired by mortals, the exercise of that power either for good or evil, and all the concepts and beliefs associated with these practices." On the other hand, Eliade qualifies shamanism, distinguishing the ecstatic qualities of the shaman from those of the priest and from the "antisocial" actions of the sorcerer. Such distinctions clearly are not only simplistic in assignment of roles, but, as will be discussed below, largely inaccurate. Even Eliade (1987:205) acknowledges problems with differentiating sorcery from shamanism when he discusses the difference between "white" and "black" shamans and emphasizes that, among the Siberian Altaic people, the latter is more adept at negotiating travel to the Underworld. He asserts that, among "North American" shamans, the normally "benevolent" shaman may be interpreted within his or her community as being malevolent and engaging in sorcery, witchcraft, or revenge (1987:217). He also insists that the role of shaman is restricted to individuals whose "soul is believed to leave his body and ascend to heaven or the sky or to the underworld" (1987:202), thus excluding inspirational practitioners whose activities revolve around spirit possession.

Some archaeologists have adopted these points, but this restricted notion of shamanism has been challenged by Lewis (1989:43–44). Lewis argues that the distinction represents a "Hegelian contrast" and notes that shamanism and spirit possession frequently co-occur, even among the Siberian and Central Asian peoples who provide the examples Eliade drew on. Russian ethnographers have leveled similar criticisms at Eliade's generalized theories of shamanism. Basilov (1997:47nk) points out that Eliade's 1951 treatise on shamanism is "helpful for its scope but remarkably inaccurate on details of Siberian shamanism."

Ultimately, the problem is that Eliade is a true believer in shamanic communication with the divine, a bias that tends to be reflected in his writing. He therefore insists on distinguishing "true" shamans from "hucksters," a point that ignores completely their performance of many of the same social roles and further detracts from any analysis, culture specific or comparative, of how shamanism affects religious or ideological systems in a society.

This is not to ignore the contributions of generalized comparative studies. They have illuminated some of the remarkable similarities in shamanic practices worldwide and, likely, through time. These include the shaman's ability to mediate forces on the celestial, the terrestrial, and the underworld planes; the presence of a "cosmic" axis, or world tree, linking these planes—general features that link shamanic training in different parts of the world; and the role of the shaman in preventing or mitigating soul loss in the healing and illness complex (Alekseev 1997; Eliade 1964:110–139, 217, 259–267, 298; Eliade 1987; Furst 1994:4–8; Layton 2000). Overreliance on these types of assessments provides context-free models based entirely on imagery that does not necessarily tell

us what shamans do, nor do these models necessarily apply to all inspirational practitioners in all places at all times (Humphrey 1994:192).

"Shaman" is currently used to define a dizzying number of religious actors represented in a plurality of social forms, ranging from hunter-and-gatherer societies to industrial states. Since the 1980s, anthropological studies have focused on the place of shamanism in the context of history and political complexity and have linked aspects of its practice to the development and decline of state formations (e.g., Atkinson 1992:314–315). These studies, it is important to note, reveal the complex manner in which shamans operate in both religious and political arenas. Shamanism is no longer seen just as "elementary or primitive as a symbolic system or form of religion" (Hamayon 1994:76), but as operating on any number of political, religious, social, and economic levels in societies of varying political and economic complexity. It is also viewed as constantly changing in response to political and historical circumstances (Atkinson 1992; Graham 1995; Hill 2002; Layton 2000:179; Taussig 1987).

In extreme cases, shamanic ritual can sometimes be seen as being about nonritual social and cultural processes, as opposed to being a direct reflection of them (Turner 1992). In many cases, shamans may be seen as being ascriptively placed outside of the structure of a social system, or as voluntarily placing themselves outside of the normative behaviors of the "status occupying actors" (Turner 1974:233).

Regardless of whether ritual specialists operate with the sanction of status-occupying actors, or on the fringes of the social structure, they are generally politically motivated (Atkinson 1992). It is precisely the indeterminacy and ambiguity of their practices and beliefs that make shamans such a pervasive and potent force across a range of social, political, and temporal boundaries.

The foregoing discussion has important implications for the archaeological reconstruction of behaviors in relation to the sacred landscape of caves. The application of the traditional generalized model of shamanism will tend to minimize variability in the interpretation of contexts and to confine these interpretations to the realm of belief. To remedy this, archaeological data need to be interpreted in light of the potential breadth of shamanic practices in contemporary and past societies rather than assigned specific functions or traits. Deficient interpretation is partially due to the tendency of archaeologists "to accept those methodological conventions of . . . comparative religion, and history that favor belief systems" rather than to see ritual and the actions of religious practices as a "disciplined and skillful behavioral practice" that leaves material residues (Walker 1995:70). As the next section will show, ritual specialists operate on different social, political, and ideological levels in modern and premodern society. By being aware of the range of possible roles they play, it may be possible to illuminate wider social, economic, and political processes.

Variations in Shamanic Institutions

This chapter began with a discussion of variability in the use of caves based on both geomorphological qualities and types of religious expression. In other words, I suggested that cave ceremonies involved at least two types of activity (public political/religious, and private sociomedical/religious), possibly determined by physical setting, and likely by the involvement of different types of ritual protagonists. To support this distinction, I have selected three examples to illustrate the roles of shamanism in different types of social organization from different parts of the world at different times. They cannot be compared in terms of specific transposable features, nor can they be used as equivalents for the ancient or modern Maya. What they do is demonstrate some of the variability in the ways shamanism can be deeply intertwined with systems of power and authority, often in contested ways.

Hugh-Jones (1994) compares ethnographic data on the training, status, and symbolism associated with Amazonian shamanism from such diverse groups as the Yanamamo, the Achuar, and the Bororo, as well as other Arawakan and Tukanoan speakers. Among these distantly related linguistic groups he distinguishes two ideal types of shamanism: vertical and horizontal. Vertical shamanism is characterized by hereditary transmission of knowledge within a small elite segment of society; the actors are morally unambiguous and powerful and play an important role in ritual activities related to social reproduction. More closely (though not exclusively) associated with ranked societies, vertical shamans are concerned with matters of descent and are recognized as possessing knowledge in the form of mythological canons. They engage in verbal transmission of power and are generally older and less active than horizontal shamans. They officiate at rites of passage and, when engaged in healing, avoid the use of hallucinogens as well as direct contact with patients.

By comparison, Amazonian horizontal shamans are associated more with egalitarian societies that place emphasis on the forest, societies where secular and sacred power are more clearly distinguished. They are morally ambiguous, transmission of knowledge is nonhereditary, and they are only marginally involved with rituals of social reproduction. Horizontal shamans are considered powerful, as opposed to knowledgeable, are associated with jaguars and hunting, are considered aggressive, and are feared. In healing they may rely on hallucinogenic substances and have direct contact with patients. Their dangerous and marginalized nature associates horizontal shamans with messianic prophets of millennial cults (Hugh-Jones 1994:46–47).

Shamans among the Tukanoans of the Vaupes River (Hugh-Jones 1994:38) are divided into two categories: *yai* (jaguar), or *payé* and *~kubu* (priest).[1] The *payé* utilize hallucinogenic snuffs from which they derive visionary powers that

allow them to cure. The power of these snuffs comes from jaguars, as well as from thunder and lightning. *Payé* are also marginalized individuals, living away from the community and often feared and ostracized. *Payé* are taught by nonrelatives, and there may be payment in exchange for training. The Desena *payé* have knowledge of their ecosystems that makes them economically important. During hallucinogenic trance states, they visit animal masters to obtain information about the location of game and fish, then pass that information on to hunters (Hugh-Jones 1994:38–41).

Jaguar imagery is common in Amazonian shamanism. Among the Canelos Quichua of eastern Ecuador, jaguars represent the animal transformation of the shaman (Whitten 1976:847), and among the Kogi of northern Colombia, jaguar lords and shaman priests inhabit the darkness and the netherworld, which stands in opposition to shamanic forces that are associated with light (Reichel-Dolmatoff 1987:106).

The powers of the *-kubu* come from their extensive knowledge of mythic history. The traditional knowledge associated with the position is transmitted patrilineally and based on the commitment to memory of extensive myths, spells, chants, and ceremonies. This knowledge is used throughout their career in the execution of their duties: making food safe; diagnosing and curing illness; divining; conducting community rituals; and mediating with ancestors (Hugh-Jones 1994:41–42).

Descriptions of the role of shamanism and chiefship in precolonial eastern Polynesia suggest that the two institutions competed for access to divine forces that controlled crop fertility, success in fishing, and the general welfare of the people. Thomas (1994:15–16; see also 1988) points out that, although in a crude sense "chiefs tend to be more prominent when shamans are marginal and vice versa . . . the forms of agency are themselves mutable and subject to various transformations according to political, historical and cultural circumstances." Hence one should not assume that shamanism is unrelated to dominant forms of hierarchy. While chiefship was the preeminent form of authority in the Tonga-Fiji-Samoa area of eastern Polynesia (a colonizing force that migrated from western Polynesia), its scope and effectiveness were not uniform everywhere. Strong competition existed between conquering chiefs and indigenous leaders, and authority was sometimes diluted through junior lines that remained when sacred indigenous persons withdrew in the face of "usurping chiefs" from other islands (Thomas 1994:17).

It is thought that ecological decline in the Marquesas Islands precipitated by swidden-induced erosion and compounded by increased food production demands for elaborate feasting, although an exceptional case, led to the decline in the power of divine chiefs. The loss of irreplaceable soils produced an overdependence on breadfruit, which is susceptible to periodic drought and to destruction

during episodes of warfare. The chiefs lost their ritual preeminence as a result of being unable to protect the fertility of food production. At the same time, there is evidence that while the power of chiefs was in decline, the ritual stature of shamans was on the increase. This was in part due to the chiefs' rarely having any power outside of the individual tribal valleys, while shamans, called *tau'a,* were recognized as potent forces across whole islands. The chiefs emphasized their "vague" relationship with ancestors as a form of power; this was contrasted with strong identification of *tau'a* with gods. Further, the *tau'a* appear to have been installed by institutionally-sanctioned priests of the chiefdom, which could indicate an indirect link between the shamans and the chief (Thomas 1994:21–23). Here, the relationship between political institutions and shamanic individuals was a mutable one in which shamans operated within mainstream institutions and on the fringes of society, and shamanic influence was gained at the expense of chiefly authority (Thomas 1988:60).

We also see examples of the intertwining of political divinity and actions of ritual practitioners who operate outside of ascribed political roles, and the marginalizing of shamans elsewhere in Polynesia. In nineteenth-century Hawaii, it was observed that shamans were a "very eccentric class of people [who] lived apart in desert areas" (Thomas 1994:18, citing Malo 1951). This marginalizing is documented by their presence primarily in peripheral places, such as the small and remote island of Niihau. In the Marquesas there is also a correlation between shamanism and political decentralization in the southern islands, which were more politically fractured, and less shamanism in the northern islands, where chiefship was more centralized and society more ranked (Thomas 1994:27).

Humphrey (1994) points out that Asian shamanism can manifest itself in more than one form, operating alongside and at the same time contesting political hierarchies. Drawing examples from historical documents of the twelfth- and thirteenth-century Mongols (though not from Chinese dynastic states), she suggests that "inspirational practices were deeply implicated in the formation of inner Asian states. Even after such states were bureaucratized and their ritual made liturgical, 'the marginal' was still necessary for the legitimization and identity of the center, just as the imperial court was for the self-definition of people of the periphery. Shamanic and inspirational practices were contexts for making such links" (1994:193). She goes on to assert that when the Mongol states were in their formative processes, shamanic discourse, with its emphasis on prophecy and interpretation, especially as it related to cosmic or natural events (the example she provides is that of efficacy of hailstorms in diminishing the potency of ones' enemies—success at warfare being seen as divine sanction), was an integral coalescing factor. Once a state coalesced, shamanic imagery was replaced with ancestral kinship imagery, with an emphasis on personal power, though still not without appropriating "the cosmic imagery of sha-

manism" (Humphrey 1994:194). However, it is likely that the balance of these two competing enterprises was factored differently between the center and the periphery. At the center, once the state was firmly established, it developed liturgical, "backward-looking," and highly ritualized religious practices, as opposed to the more spontaneous and decentralized shamanic activities that helped fuel their development (Humphrey 1994:208).

These examples indicate that archaeologists need to distinguish between ritual activities performed for political reasons (legitimization of power or of relationships to ancestral deities) and those performed by specialists involved in the illness and healing complex and other activities that are not clearly linked to the political fortunes of ruling elites. The categories are not static; institutions of ritual specialization compete with each other for access to authority and power, and the social roles of specialists can change along with political institutions.

The Faces of Shamanism in Maya Society

Ritual specialists in contemporary Maya societies engage in many of the types of activities that characterize shamanism in the foregoing examples. Hence, there is no reason to believe that in the past these specialists did not engage in ritual-political/religious discourses from within existing hierarchies and at their margins. An exhaustive discussion of all the manifestations of shamanism in present and historical Maya societies is not possible here, but a few examples illustrate the variability and complexity of Maya shamanic practices. What is clear about Maya shamans and their activities is that they do not constitute a fixed canon; their activities are variable within and between groups, though they all participate in larger Mesoamerican ideologies (Monaghan 1995:307–312; 2000:32).

In the early historical period, and as early as 1552, chroniclers recognized that religious expression presented itself in different forums, each with its own practitioners. Shamans, called "witches" or "sorcerers" by the clergy, were considered less of a threat to the church than were more institutionalized forms of indigenous religion, referred to as "idolatry." Indigenous state religion, though it was hardly liturgical, tended to associate itself more with Maya elites and political systems. Even within the institutional state religion, there was more than one sphere, operating at both the community and the household levels, as evidenced by the presence of household lineage gods as well as community gods (Farriss 1984:290–291, 507nn7, 8). There is some evidence that specialists who continued to practice indigenous religions in the sixteenth century came from groups of local schoolmasters (Scholes and Roys 1938:605), who may or may not have been elites.

Modern shamanic practices are incorporated into official hierarchical institutions in many indigenous communities. The *cofradía,* or cargo system, present

in many Maya communities, though of Spanish origin (Foster 1959, 1960), also clearly contains syncretic elements of Pre-Columbian institutions. In Santiago Atitlán, not all the offices of the *cofradía* are shamanic. Two, however, are occupied by shamans who are responsible for the performance of rituals, and the institution itself functions as a vehicle to assist the sun in its daily path across the sky (Carlsen and Prechtel 1994:86). The first shamanic office is that of the *nabeysil,* who is the priest in charge of sacred bundles. He holds the position for life and must take a vow of celibacy. The second is the position of *teninel,* which is a held for only one year. The term *teninel* translates as "to shoulder," and the cargo holder is responsible for carrying the deity Mam once a year during Holy Week (Carlsen and Prechtel 1994:86). Both the sacred bundle and the concept of burden have clear Pre-Columbian ideological counterparts (Freidel et al. 1991; Mendelson 1958; Price 1974; Schele and Miller 1983).

That shamanism would be associated with hierarchical institutions is not surprising, given the imbeddedness of ritual institutions in many Maya societies as well as the ecological focus on terrestrial deities and landscapes that characterizes Mayan religions (Monaghan 2000:24–25). In the Tzeltal Maya community of Oxchuc, the indigenous political and religious institution of the *calpule* is arranged both hierarchically and by ascribed status. Institutionalized community authority is integrated into seven offices, four of which are achieved by progressing up a strict hierarchy. The offices from *dzunubil* on up are sacred and open only to people with superior knowledge, recognized moral status, and expert experience in church ritual and in the indigenous ceremonies practiced in the caves, water holes, and special mountains. These cargos are thus obtained not by automatic advancement, but by special merit, which is usually not acquired until an advanced age. The top three offices represent an intersection between achieved life statuses and ascribed supernatural qualities: while individual knowledge is paramount, the high representatives of the *calpule* must also have a powerful *nagual* through which they can learn about the private lives of their subordinates (Villa Rojas 1985:420–421).

Not all *nagual* owners are community leaders, however. The common name for those who possess a *nagual* is *agchamel,* which translates to "maker of disease," a term that is not favored by some people because of its association with sorcery. The term *pikabal,* which means "pulse taker," is used to refer to those who possess a *nagual* but are involved in the illness and healing complex. This category is more ambiguous and contested. Competition among *pikabales* may take the form of accusations of sorcery. *Agchameles* can also, under unusual circumstances, sell malevolent services to others (Villa Rojas 1985:531–532). However, the ambiguity of such individuals has been documented elsewhere, and in many cases there is considerably more speculative accusation of sorcery than admission of being engaged in harmful acts (Nash 1967).

Watanabe (1992) discusses the presence of at least four types of shamans

in the Highland Guatemalan community of Santiago Chimaltenango. Three are recognized under the general rubric "*chmaan,*" which translates literally as "grandfathers." The skills of these ritual specialists are not institutionalized, though they are consulted to resolve a number of critical issues, including success in agriculture and rectifying personal misfortune or illness. However, there is a clear hierarchy in the epistemology of curing. Each specialist has a specific range of potential cures, and failure by one leads to consultation of a more powerful specialist (Watanabe 1992:188). The first line of defense against a presumed illness is the consultation of a female *xhb'ool,* or herbal curer. Most illnesses are regarded as "afflictions of God" that necessitate restoring the patient's soul to a previous state of equilibrium. *Xhb'ool* also operate as midwives and use anointments of *aguardiente* and herbs sprayed into a patient's face to return the blood to normal. If the cure does not work, the patient consults an *aj q'iij,* which literally translates as "person of the sun/day(s)/time." These individuals are diviners and use a combination of calendrical knowledge and casting of seeds to ascertain the nature and cause of an affliction. The *aj q'iij* is consulted to determine propitious days for community rituals and projects, thus making him a consultant for institutional practitioners. In cases of affliction, the *aj q'iij* determines if the cause is an offended spirit making trouble for the patient. If this is the case, a number of *costumbres* (literally, "customs," but the word refers to culturally specific actions) in the form of interventions, are prescribed and are performed by the *aj q'iij* on behalf of the patient. These include the offering of candles and incense (*poom te chaamb'aj*). The offerings are considered neither a payment nor a sacrifice, but are "things for praying to god" (Watanabe 1992:190–191). This is not a single community phenomenon. The activities of such diviners (day keepers) are also discussed in detail, with striking similarities, by Barbara Tedlock (1992) for the nearby community of Momostenango.

Should the prayers of the *aj q'iij* fail to resolve the misfortune or illness, a more drastic type of intervention is called for. The *aj mees* is the most powerful type of shaman. His name literally means "person of the table," which refers to the small stools or tables he uses as an altar. *Aj mees* communicate directly with the *witz,* or mountain lords, on behalf of clients, and this consultation comes with a heavy price: the patient becomes the "child" of the altar of the *aj mees,* and when he dies his soul is sent into the employ of the specific *witz* (earth lord) to whom the *aj mees* is beholden. *Aj mees* are known for their extensive knowledge of sacred geography and can recite the names of many mountains and other sacred places (including the cross in front of the community church). The spirits, when they respond, do so in the form of small speaking saints who carry whips made of snakes and speak in deep voices in Spanish (Watanabe 1992:188–189).

The *aj mees* is the only shaman powerful enough to confront the power of a *ky'aawil,* who is the most dangerous and malevolent of the ritual special-

ists. Watanabe's informants were necessarily vague about the specific powers of *ky'aawil* individuals, since they bring sickness and slow death to those whom they bewitch. The power of the *aj mees* and the *ky'aawil* may be close to equivalent, since it takes an exceptionally strong *aj mees* to locate the sorcery perpetrated by the *ky'aawil*.

There is an element of foreignness associated with the *aj mees,* who is described as not being from the community or as having been an immigrant from another community. These *aj mees* individuals are said to be the reason why shamanism has fallen into disfavor in recent years (Watanabe 1992:189–193).

Carlsen and Prechtel (1994) outline a hierarchy of shamans in Santiago Atitlán that includes a category titled *aj'mes.* They dispute, however, that the term relates to practitioners' association with the "*mesa,*" or table-altar. Instead, they claim that the word translates literally as "sweeper" and that among Atitecos the *aj'mes* is a practitioner who "sweeps one's road." Their typology of Atiteco shamanism also represents a hierarchy of curing powers, ranging from midwives to herbalists to day keepers to snakebite specialists to the *aj'mes.* They also have a category of malevolent sorcerers who remain the most poorly defined and least identifiable in the community of specialists (Carlsen and Prechtel 1994:100–104).

Similarly, Barbara Tedlock (1992:74, 111, 124–126) discusses a category of shamans in the hierarchy called *ajnawal mesa.* These individuals are considered dangerous, hold séances at midnight, and intervene with the Earth Lords who dwell in the mountain. They are highly feared and often thought to be witches (*ajitz*) who can cause illness. They are also greatly respected and often chosen as lineage heads and civic leaders, attesting to their potential for movement in a ritual hierarchy.

In Yucatán hierarchies of religious specialists called *h'men* (plural, *h'menob'*) include a plethora of differences in practice and status (Bartolomé 1978). While the most common *h'menob'* are herbalists (*dzadzac*), there are two types of diviners, one of which uses corn (the *ah-kin*) and another of which is responsible for predicting weather and past or future events (the *ah-boot*). The latter diagnoses what type of "air" causes an illness and exorcises it. Those who deal with physical trauma are called "bonesetters" (*utskinah-bac*), and those who deal with psychological and emotional conflicts are referred to as "great teachers" (*nohoch maestro*). While any of the *h'menob'* can preside over collective rituals for agriculture, hunting, beekeeping, or rain prayers, the overlap of the roles is evident in that whichever one officiates at the rain ceremony is referred to as *nohoch maestro* (Bartolomé 1978:78).

Owing to the ambiguous and often marginalized nature of shamans, the literature is frequently uneven in reporting their activities. Accounts thus may reflect general community mistrust, to say the least, and, more likely, fear of

inspirational practitioners who operate outside of mainstream institutions. Significantly, shamanic practices that involve practitioners who utilize caves or those who intervene with cave-associated deities (such as the *witz*) sometimes seem to involve individuals who are more likely to be distrusted, feared, or otherwise marginalized. In discussing the multilayered universe, Hanks's informant, an inspirational ritual practitioner, acknowledged but asserted ignorance of Underworld deities. In this shaman's view of Yukatekan cosmology, the sky was vertically hierarchical in terms of celestial spheres, while the spirits of the Underworld were viewed as horizontally equivalent, which may indicate a privileging of celestial religious hierarchies over those considered more dangerous. Hanks believed that there were other shamans who "traffic[ked] with underworld spirits [and who] differentiate[d] sectors of the underworld." However, due to the "top secret" and dangerous nature of this type of knowledge, his informant was unable to provide Hanks with any information concerning these practices (1984:134, 160n4).

The Tzotzil fear caves for their association with sorcery and because they are portals to dangerous Earth Lords (Fábrega and Silver 1973). Sorcerers' malevolent activities are believed to take place deep inside cave passages. While there are some *h'ilol* (healing shamans) who are willing to make journeys into caves to recover those souls sold to the Earth Lords, "this procedure is highly reprobated and informants will furnish few details," though features cognitively associated with caves, such as rockshelters, springs, or small cave openings, are utilized in parts of pilgrimage circuits and community rituals (Fábrega and Silver 1973:260–261). That the use of features in the landscape can be secret is evidenced in Silver's (1966) analysis of Tzotzil shamanism in Zinacantan, Chiapas. He found that the most powerful shamans (*h'iloletik*) are divided into two groups: those who cure and those who can cause illness. The latter utilize caves for malevolent activities, operate independently of the usual shamanic institutions, and have different paraphernalia. Many "good" *h'iloletik* are reputed to have no knowledge of how caves are used, though some secretly use caves to recover souls taken by witchcraft (Silver 1966:45, 219). However, like Hanks, Silver found informants extremely reluctant to discuss these activities.

Caves and Shamans: A View from the Maya Mountains

Archaeological data are inherently difficult to interpret in terms of assigning social roles to actors in religious activities. However, variability in cave data may indicate the presence of different types of ritual specialists in Pre-Columbian ceremonial activities. In our study area, two small Late Classic communities in the Maya Mountains of southern Belize (Figure 8.1), investigations since 1992

indicate that both cave type and proximity to settlement may have been factors in different types of utilization. These Maya Mountains communities offer a rare and relatively unspoiled laboratory in which to explore community-wide cave utilization. Located in a rugged, remote, and unpopulated area of Belize, eleven Early to Late Classic communities and over one hundred caves have been documented in the karstic flanks of volcanic mountains. Owing to the difficult terrain, the number of cave sites recorded likely represents just a fraction of those that exist. We investigated two moderately sized Late Classic centers located near the headwaters of the Bladen Branch of the Monkey River (Figure 8.2) and forty-seven caves and five rockshelters near the sites of Ek Xux and Muklebal Tzul over a four-year period (Prufer 2002).

There, Brady's conceptual framework appears to be supported. Activity in caves with cavernous semilight entrance rooms appears attributable to public ceremonial activities and to activities performed in rockshelters, which are, for the most part, well lighted and easily accessible. It is likely that all the caves and shelters were part of ritual circuits traveled by different specialists as part of their religious duties. Such circuits are fundamental to the organization of specialist-mediated activities across the Maya area (Hanks 1990:337; Redfield and Villa Rojas 1934:176; Sosa 1985:343–344; Wauchope 1938:143).

Caves located at the eastern margins of the two communities appear to have evidence of public use. Specialized artifacts from these sites have correlates with excavations from within the civic ceremonial areas of the surface sites, in some cases possibly linking these activities to local elites. Repeated use and smashing of large effigy censers, multiple non-elite mortuary interments (both primary and secondary), complex architectural modifications, and generally outwardly focused altar constructions appear to be represented.

At Chab'il Uk'al, a rockshelter located 250 meters east of the Ek Xux site core, we uncovered evidence of multiple and likely extended use—probably for public rituals—as well as associations between the shelter and ceremonial structures at the surface site. The rockshelter is a low west-facing overhang surrounded by large boulders, which gives the site an amphitheatre-like appearance, with the hypothetical audience potentially looking into the rockshelter toward a stone altar (Figure 8.3). When the site was discovered in 1992 by adventurers (who were later responsible for its looting), a large, approximately one-meter-high effigy censer was standing atop a stone altar at the back of the rockshelter, facing outward. The vandals photographed this feature, copies of which are on file with the Belize Department of Archaeology (Figure 8.4).

By the time we investigated the site in 1997, it had been vandalized and the complete censer was missing. However, the area was strewn with fragments of large cylindrical flanged effigy censers. In total, we recovered over four thousand censer fragments from the surface and from shallow excavations, representing

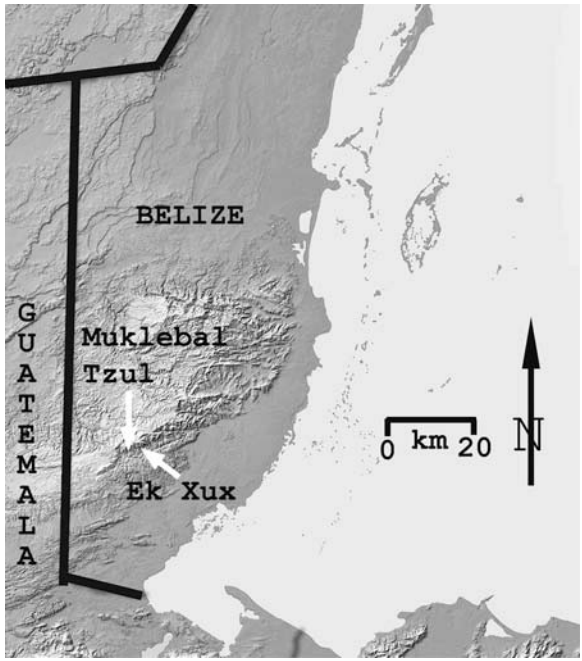


Figure 8.1. The Maya Mountains, Ek Xux, and Muklebal Tzul. The southern Maya Mountains are largely derived from limestone overlying earlier volcanics. Base image courtesy NASA/JPL/Caltech.

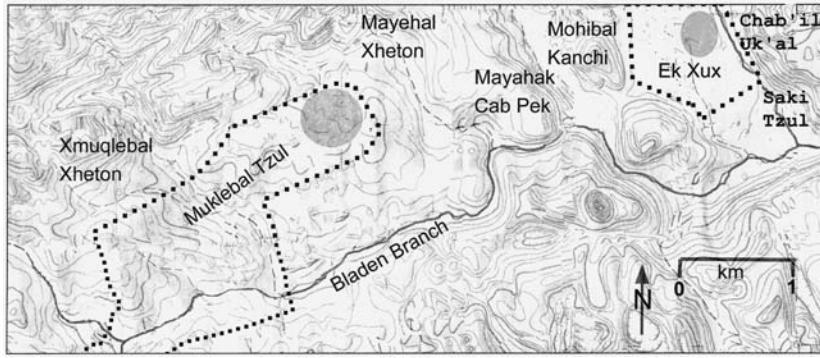


Figure 8.2. Ex Xux, Muklebal Tzul, and cave sites discussed in the text. In keeping with policies of the Belize Department of Archaeology, the exact locations of archaeological caves are not given. Drawn after Director General of the Military Survey (1983).

a minimum of forty-seven vessels. Most of these were likely large (in excess of one-half meter in height), painted blue, red, and black, and many contained residues of burned resins, likely copal incense. Also recovered were almost five hundred grams of partly carbonized incense resin; three intact mammal crania that may have been sacrificial (tapir and peccary);[2] a calcite crystal carved in the form of a tooth; over 125 *candeleros* (Figure 8.5);[3] the remains of several smashed polychrome vessels, most of which were reduced to fragments so small that reconstruction was impossible; and several disarticulated human bones.

Attempts to reconstruct the effigy censers were unfruitful. Given the number

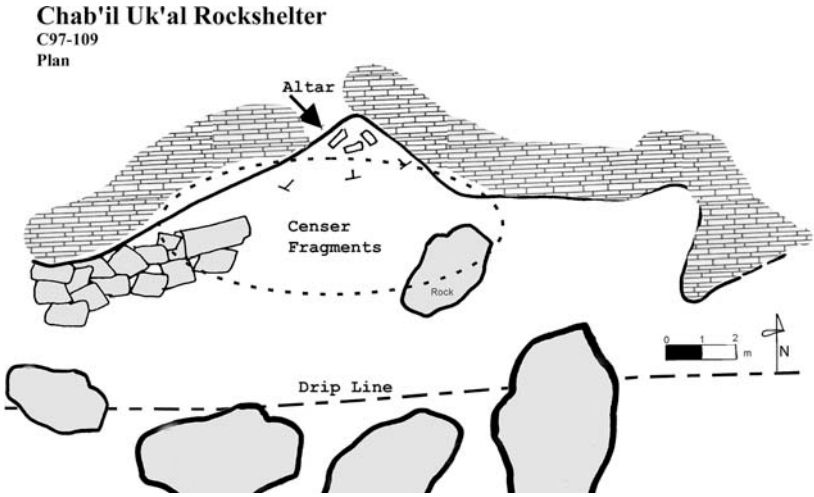


Figure 8.3. Plan view of Chab'il Uk'al rockshelter, showing location of the altar where a flanged effigy censer stood prior to its being looted.

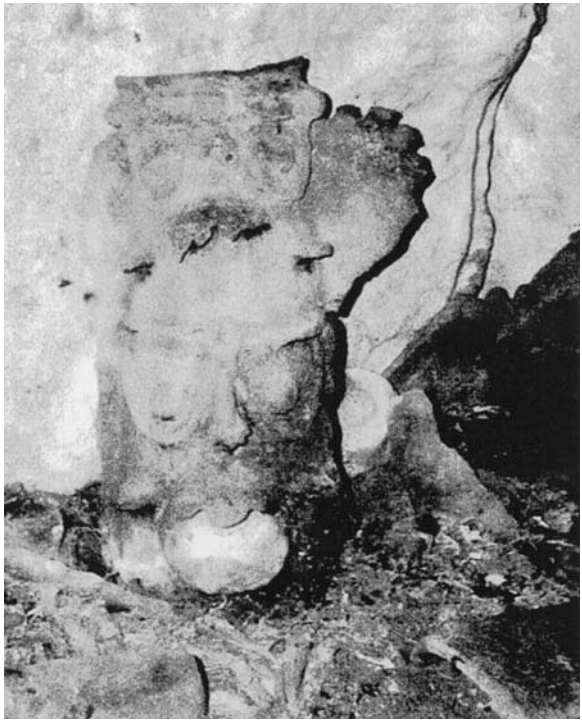


Figure 8.4. The censer that stood in Chab'il Uk'al before it was looted. The photograph was obtained from an unknown source who visited the rockshelter prior to its looting. Photograph on file at Belize Department of Archaeology.

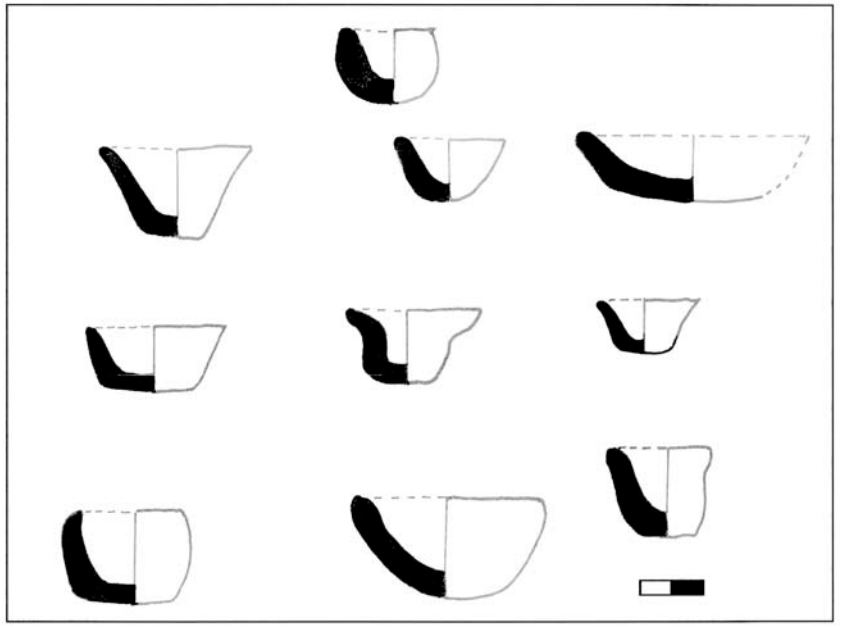


Figure 8.5. *Candeleros* recovered from Chab'il Uk'al. Many contained partially carbonized residues of resins suspected to be copal incense.

of censer sherds and the fact that many of the pieces were quite large (flanges and body sherds in excess of thirty centimeters in length), we originally felt that we would be able at least to partly reconstruct some of these vessels. However, we discovered that most of the pieces were not present at the site; no complete rims, bases, or flanges were represented in the assemblage. This led us to speculate that either portions of the vessels were removed from the site after they were smashed, or that the vessels were broken elsewhere and only pieces were placed at the site. Two facts favor the former possibility. First, we know that at least one complete censer was present at the site prior to its being looted—the one that was photographed in 1992. Second, the copious amounts of incense residue on the censer fragments and the large amount of partly burned resin found at the site support the premise that these vessels were utilized then destroyed as part of activities performed in the cave.

We found two fragments of similar censer material in the semilight zone of a large cave to the west of the site core, and a single fragment in the light zone of a cave located slightly east of Chab'il Uk'al. We found effigy censer fragments in only one of the other twenty-four caves we investigated in the Ek Xux settlement area. However, during excavations at Structure 23, a small temple on the eastern margin of the site, we recovered numerous effigy censer fragments simi-

lar to those found at Chab'il Uk'al. Effigy censers were not recovered any other excavations at Ek Xux. Interestingly, Structure 23 is the closest nonresidential building to Chab'il Uk'al, and if the space between the two sites were cleared of vegetation, the rockshelter would be clearly visible.

The 125 *candeleros* recovered from the rockshelter provide another link between Chab'il Uk'al and the surface site materials. While these are occasionally found in other caves in the region (as isolated finds), they have never been recovered in such quantities. However, at Ek Xux Structure 15, a temple building associated with a stela plaza and located at the western edge of the site, we recovered two caches containing 104 *candeleros* during excavations. Hence, the two dominant types of artifacts found at Chab'il Uk'al have correlates at the most complex groups at Ek Xux (and not in any other excavated site contexts) and only very limited correlates at other cave sites. It is likely that activities conducted at Chab'il Uk'al were somehow linked to ceremonial activities of political-elite segments of the community. As Rice (1999) has noted, effigy censers are linked to the activities of elites in Classic Period contexts. That these activities were political does not preclude them from being shamanic; in fact, some of the materials found at the site, including modified calcite crystals and evidence of the burning of incense, indicate that ritual specialists were involved in activities at Chab'il Uk'al (Brady and Prufer 1999).

If Chab'il Uk'al was a cave site used for public ritual associated with elite segments of the Ek Xux community, the rockshelter and cave entrance of Mayehal Xheton, located near Muklebal Tzul, may have had a similar function (see Figure 8.2). Like Chab'il Uk'al, Mayehal Xheton is located on the eastern margin of the surface site, though about six hundred meters from the site core. Modifications to the rockshelter suggest that activities were focused outward. The cave can be divided into roughly two general areas: a well-lighted entrance that resembles a rockshelter; and a series of dark-zone passages (Figure 8.6). With the exception of one difficult-to-reach upper passage, the rest of the cave has been looted, likely since 1992. Looting may have been by the same person or persons responsible for the looting of rockshelters in the Ek Xux Valley about the same time.

The entrance chamber (Figure 8.7) consists of a series of platforms below the entrance to the cave's dark zone. This area has clearly been looted; the only artifacts we recovered were a small collection of sherds, several of which had already been disturbed (some were set on rocks outside of the drip line). The opening has a cathedral-like appearance. Portions of the rockshelter floor have been leveled and a series of plastered and painted masonry platform altars face out toward a series of large limestone outcrops on which an audience could have sat. The largest of the plastered platforms measures 6 × 1.5 meters and is 30 centimeters high. Below this platform are a series of smaller platforms or ter-

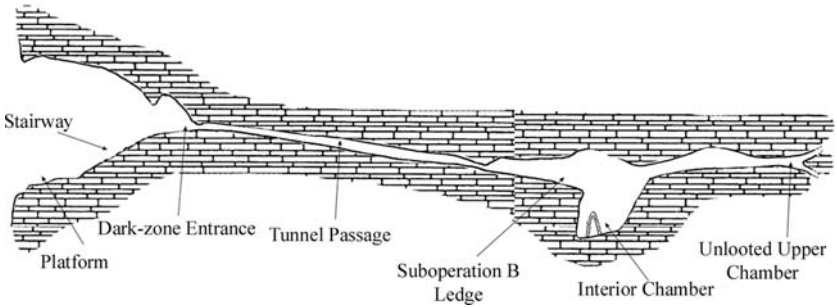
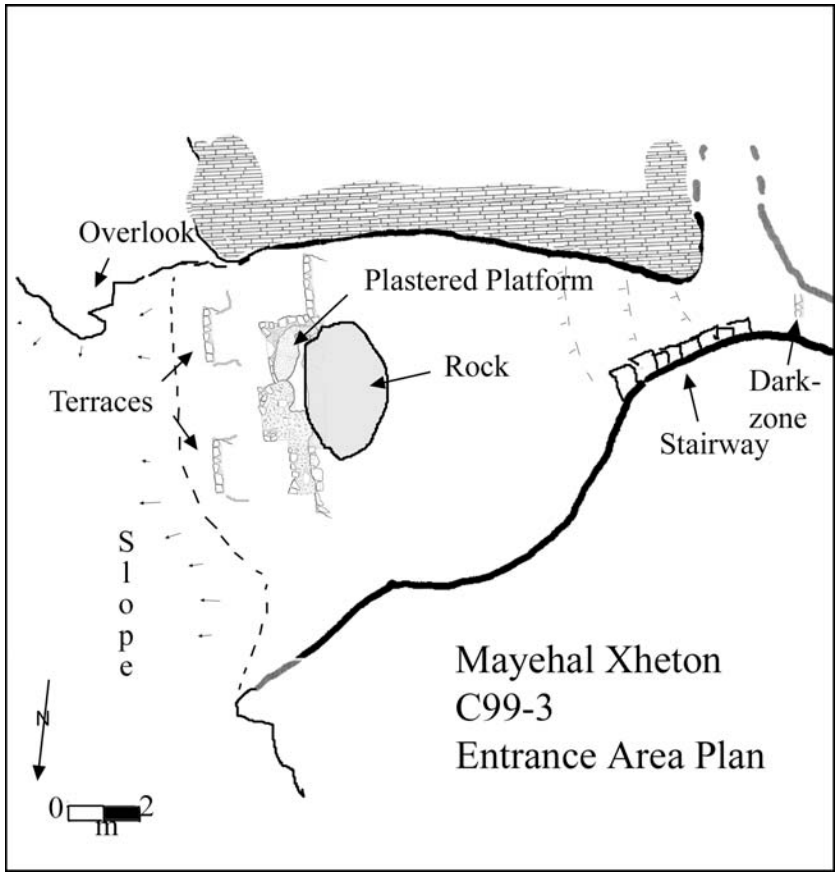


Figure 8.6. Profile of Mayehal Xheton cave, showing the well-lighted entrance and dark-zone chambers.

Figure 8.7. Plan view of the entrance area to Mayehal Xheton. The platforms all face outward, away from the cave entrance, indicating that activities were directed toward the audience rather than the dark-zone opening.



races. Behind the central platform a large rock blocks access to and the view of the entrance to the cave's dark zone. On top of this rock there is a small abstract petroglyph. Behind this rock a talus slope leads up and into the cave. This slope at one time had a narrow stairway along one edge, and remnants of that façade are still intact. This stairway terminates at a series of walls that restrict access to the entrance to the dark zone.

Mayehal Xheton is a complex and interesting cave site. The opening area is very much like a rockshelter in appearance. The investment of labor in leveling the floor and constructing the complex plastered and painted platforms attests to its importance. I would argue that the focus of these platforms was not into the cave, but outward, toward an audience that could have been seated on the adjacent outcrops. The largest platform abuts a boulder that blocks the view into the cave from the platform altar, but not that of an audience viewing the entire performance area. In other words, the platform is like a stage, facing out toward an audience. There is evidence of burning on top of this plastered and painted platform, and behind the boulder a layer of ash and carbon thirty centimeters deep indicates multiple burnings of what was likely incense. One possible scenario suggested by this arrangement is of an actor on the platform altar with incense burning behind him or her while others ascend or descend the stairway leading into the cave, all of which an audience could watch. Displays like this were likely intended to impress upon an audience the links between the actors involved and the ancestral beings and Earth Lords who were rooted in the earth and accessed by way of the cave. In all likelihood, these types of displays were of a political nature, intended to reaffirm the connections between status-holding individuals and their legitimating supernatural forces inside the cave (which is itself a metaphorical and physical link between the surface world and the interior of the earth).

Once inside the cave, the entire context and function changes. Spaces in the dark zone of Mayehal Xheton were likely not public areas, and an audience probably did not view activities performed there. The focus inside the cave was between the actors and whatever forces they intended to supplicate or make requests of.

While the focus of activities at Chab'il Uk'al and Mayehal Xheton may be linked to public ceremonial activities, possibly associated with politically dominant community segments, activities in other rockshelters suggest a far more multifaceted role for caves. Mortuary practices at three other rockshelters in the Ek Xux Valley appear to have involved nonelite segments of the community, though they may well have been of a public nature. The sites, Mohibal Kanchi, Mayahak Cab Pek, and Saki Tzul all contain multiple interments accompanied by simple grave furniture (see Figure 8.2). Burials, both primary and secondary, single and multiple, contain males and females of all ages. The pattern of rock-

shelter mortuary activity at Ek Xux is significant because there is no evidence of other mortuary activity anywhere at the surface site. Preliminary testing over a period of three years failed to find any evidence of burials either in the site core or in outlying residential structures.

This pattern contrasts dramatically with Muklebal Tzul, located less than three kilometers to the south, where 20 percent of all residential structures contain substructure chambers, and half of those chambers contain burials. It should be noted that, with the exception of one tomb that we found during an excavation, we documented all tombs based on the presence of collapsed roof slabs or visible entrance shafts or doorways. To date, every excavated structure has contained at least one tomb. There are likely many more that have not collapsed or that have entrances that are obscured. The excellent vaulted construction of the buildings and tombs has likely preserved a large number that have not been identified. Further, fewer than ten structures at the site have been looted, and those that have all contain tombs. Interestingly, while the Ek Xux Valley has at least four major rockshelters, the valley that circumscribes Muklebal Tzul has only one (Mayehal Xheton), and it is devoid of mortuary activity.

At Mohibal Kanchi rockshelter, there is evidence of what may be the interment of a family unit. The site is located less than one hundred meters from a series of residential groups, and less than three hundred meters from the site core. During the profiling and expansion and salvage of a looter's pit, we encountered a male buried face up and fully extended. The secondary burial of a child (around nine years of age) had been carefully placed across his knees. We originally thought the child was also a primary burial until we noted in situ that the two humeri had been reversed and the vertebrae were not in their proper order. The skeleton had been carefully arranged to imitate a properly articulated burial, but with significant misordering of specific bones (Figure 8.8).

Kneeling on the shoulders of the male were the flexed, but properly articulated, remains of a female in the fetal position. This individual's head had been removed and placed alongside the cranium of the male (Figure 8.9). We found the remains of an infant (younger than one year) fifty centimeters to the north of this group. Skeletal pathologies indicate that the two adults led fairly difficult lives, with evidence of arthritis, healed fractures, and degenerative damage to their spinal columns consistent with carrying very heavy loads (Saul et al. 2002). We found four stingray spines beneath the skull of the male. No other grave goods were directly associated with the burials, but artifacts found in surrounding looter's fill and on the cave surface include carved jaguar (P. *onca*) canines, a carved limestone polishing stone (likely for polishing plaster),[4] and a variety of fragments of slipped and unslipped Late Classic ceramics.

Another rockshelter, Mayahak Cab Pek, is located at the western margins of the Ek Xux Valley, 250 meters from the nearest settlement and over 5 kilometers

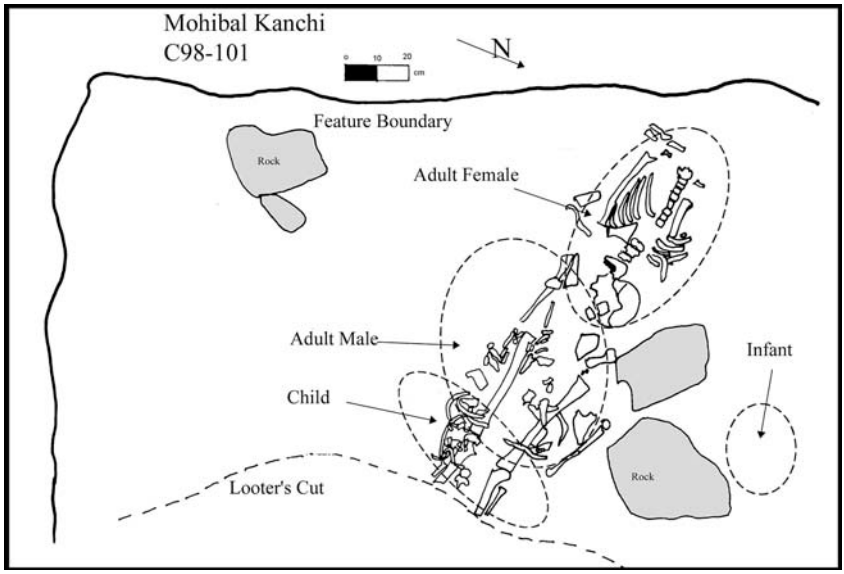


Figure 8.8. Plan of human burials at Mohibal Kanchi.

from the site core. It was used as a cemetery from the Protoclassic through the Late Classic, the entire time Ek Xux was settled. Our excavations at Mayahak Cab Pek uncovered evidence of three types of mortuary treatment. First, we found the remains of an adult male, face down, with his articulated head resting in a large Protoclassic Caribal Red, Peten Gloss dish (Figure 8.10). Alongside the cranium and inside the dish, we found the partial remains of a bird egg (genus/species as yet unidentified). The flexed remains of an infant, placed on a bed of rocks, were found slightly to the east of and below the feet of the male; this may have been an earlier, unassociated interment.

Second, in another excavation unit, we recovered the primary remains of a female and an infant. These burials were flexed and interred in a circular pit, then covered with a layer of heavy rocks. Third, a large subsurface, rock-lined cairn contained hundreds of disarticulated and mixed human bone fragments, representing at least three individuals. At Mayahak Cab Pek, little attention seems to have been paid to the presence of previous burials when new interments were undertaken. During the construction of the cairn, the lower limbs of at least two individuals buried less than thirty centimeters below the current ground surface were cut off. We found a large number of calcite crystals in association with the burials. Other artifacts found include abundant Late Classic ceramic sherds, primarily bowl and large jar forms, which mirror the types of materials found in nearby caves. A single surface feature—a rectangular stone construction—also

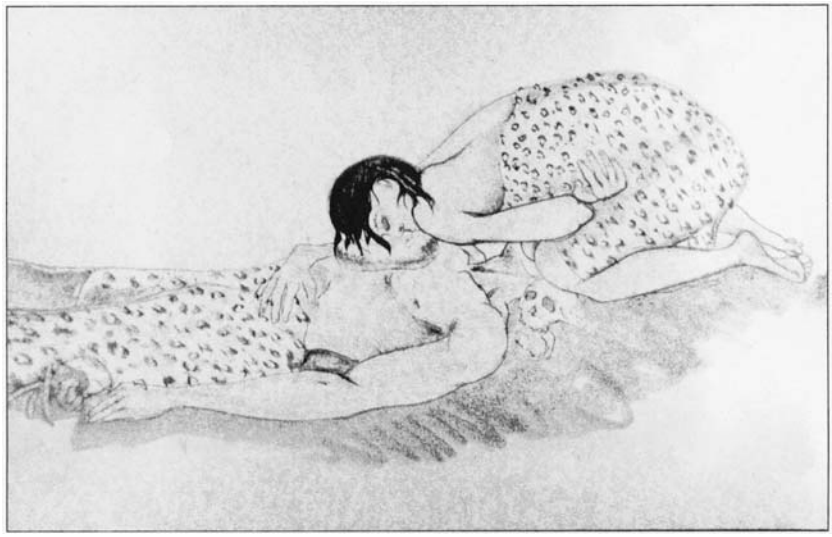
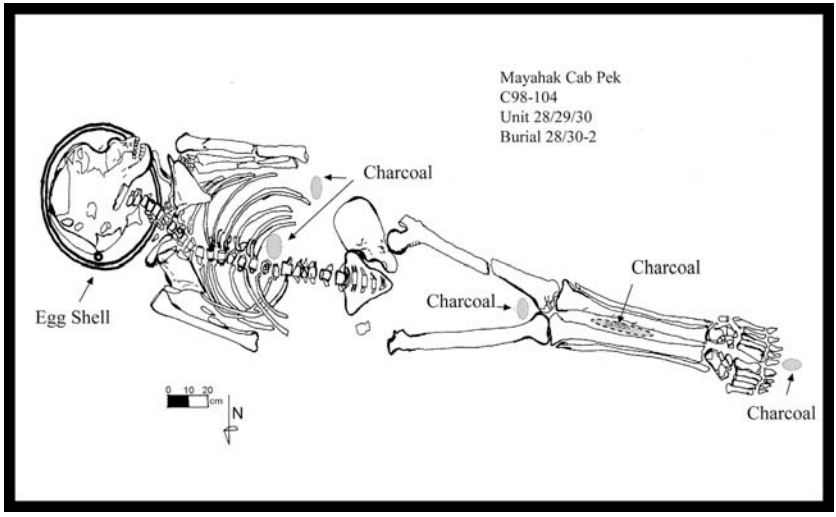


Figure 8.9. Artist's Reconstruction of possible family unit at Mohibal Kanchi. Courtesy Frank and Julie Saul.

Figure 8.10. The remains of a face-down male with his head resting in a large Protoclassic bowl at Mayahak Cab Pek rockshelter.



contained evidence of multiple burials. Unfortunately, it had been disturbed by looters, making an assessment of the integrity of the interments impossible. A spire-lopped conch shell that likely functioned as a horn was recovered from this feature. With less than 5 percent of the rockshelter excavated, it seems likely that we have found only a fraction of the burials and types of interments present at the site.

At Saki Tzul rockshelter, a large overhang located nine hundred meters southeast of Ek Xux, investigations have just begun, but are revealing a similar pattern of mortuary use. Multiple subsurface interments, accompanied by simple, if any, grave goods, are thought to occupy most sheltered areas. We found human skeletal materials across the surface of the shelter, and probing revealed additional burials. We excavated the complete skeleton of a female whose body had been disturbed by digging activity sometime in antiquity. We found numerous bones of other individuals intruded into this burial. There is a strong possibility that Saki Tzul may have functioned as a mortuary site for the Ek Xux community.

These rockshelter burials are intriguing on a number of levels. Features such as the cairn at Mayahak Cab Pek, where large amounts of skeletal material representing numerous individuals were deposited, indicate specialized treatment of human remains. Such deposits were probably constructed and filled with remains in a manner facilitated or conducted by some type of ritual specialist. The presence of modified limestone crystals there and in other burials is an indication of the presence of some type of religious practitioner (Brady and Prufer 1999). Other contexts, such as the placement of the cranium in a bowl, or a feline figurine and stingray spines as grave goods, surely were the result of emicly significant activities of a religious nature, though ascribing specific meaning to a category of specialists is not possible. More puzzling is the presence of rockshelters with multiple burials surrounding Ek Xux while none are present at the rockshelter near Muklebal Tzul. Clearly, preferences for mortuary treatment differed between the two communities, with emphasis at Muklebal Tzul placed on the construction of substructural tombs (which may have been cognitively seen as pseudo-caves) while the residents of Ek Xux preferred to utilize rockshelters to inter the dead.

If publicly utilized caves and rockshelters contain difficult-to-interpret evidence of use by elite members of communities or those able to mobilize extensive resources for site modification or as cemeteries, evidence of dark-zone activity is even more ambiguous in terms of identifying the role of protagonists who utilized these caves. Cave dark zones often contain remains of objects mentioned in the ethnographic and ethnohistorical literature as possessions of shamans involved in divination or in the illness and healing complex. Materials such as cut crystals, wooden benches, disarticulated skeletal material, and organic materials

such as cacao beans and copal incense, have been recovered from the dark zones of caves in the southern Maya Mountains. While the evidence that these objects were utilized exclusively by shamans is not conclusive, it is worth bearing in mind that cave dark zones are imposing environments, physically dangerous and environmentally inhospitable. In addition, cave dark zones are ethnographically known to be feared places, the abode of particular deities and demons, negotiation with whom can have perilous effects and is generally left to the devices of specialists versed in such activities (Gossen 1974:87; Hofling 1991:185–192; Vogt 1969, 1990:122). (For more detailed discussion of why caves are considered dangerous, see Chapter 7, this volume.)

The majority of the caves we investigated near Ek Xux and Muklebal Tzul are small and have dark-zone areas. Generally, there are two patterns in the use of these caves. Cave entrances have small scatters of ceramic materials just inside the drip line. Dark-zone chambers have evidence of burning and offerings of complete and partial ceramics, organic materials, and lithics. Most of the caves are small, and the restricted size of many of the interior chambers indicates that activities were limited to one or a few individuals. This, coupled with the knowledge that those utilizing the caves did not enjoy the luxury of battery-powered lights, but were likely utilizing hot, smoky torches, probably further speaks to the restricted nature of dark-zone cave activities. The vast majority of artifacts recovered from these caves are ceramic offerings, the most common being sherds of bowls or large jars used for burning incense. These are often accompanied by other ceramic materials such as complete, though empty and often inverted, jars and complete or partial bowls not used for burning.

This pattern is by no means all-inclusive or representative of every cave in the study area. There is a good deal of variation, with some dark-zone caves containing unique or unusual artifact assemblages. Near Ek Xux, the Chiue Hix Cave contained a large number of fragmentary Peten Gloss Ware polychrome plate rims. At least twelve vessels, none of which could be reconstructed, were represented, forming the largest class of artifacts in the cave. At nearby Raspaculo Cave, a small, dark chamber less than forty centimeters high, the assemblage was dominated by waxy slipped, thick-walled plain censers. Many of the sherds were heavily burned, and none could be reconstructed beyond a quarter of the original vessel. While these types of artifact-specific assemblages are not the norm, they do speak to the individual nature of many cave activities.

Certain types of artifacts recovered in dark zones indicate the activities of shamans, and their contexts in inaccessible dark zones make them unlikely candidates for association with elite activities. We recovered a carved wooden bench in the dark zone of a difficult-to-access cave located in the Muklebal Tzul Valley. The bench, measuring almost 2 meters × 35 centimeters, was found in association with several monochrome vessels showing evidence of incense burning.

Two forked wooden sticks of unknown function were embedded in the earth next to the bench and braced by small rocks at their base. We recovered a similar, but smaller, bench or stool accompanied by a decapitated, but reverently treated, individual from a small mortuary cave outside of this study area (Prufer N.d.).

Benches and stools fit well in underworld and shamanic contexts. Figurines from burials at Santa Rita Corozal, Tikal, and Jaina Island depict supernatural individuals seated on small four-legged stools (Chase and Chase 1986:16; Coe 1973:56; Moser 1973:56). A seventeenth-century account from Highland Guatemala describes a cave where a wooden "idol" was found standing on a low stool surrounded by offerings of food and incense (Gage 1958:281). Objects such as benches likely served both as "altars" on which ritual objects were placed and as seats through which powerful individuals could negotiate supernatural relationships with ancestors and underworld deities. Many contemporary Mayan groups use tables as household altars. Among the Highland K'iche', for example, celestial deities are given space on top of the table, while stones placed under the table represent the terrestrial deities (D. Tedlock 1985:164). The placement of benches or stools in an underworld setting likely represents a metaphorical model of the universe utilized by specialists, as they are by the modern Maya, and described in extant mythological descriptions, such as the *Popul Vuh,* where benches are used by deities (D. Tedlock 1985). These types of objects are also associated with elite power and the legitimization of divine ancestry. Benchlike altars are portrayed on Classic Period iconography as the seats of powerful individuals, and these seats are often depicted as poised between the material world and the supernatural realms where ancestors reside (Schele and Miller 1986:112). However, it is likely that, given the nature of these objects as facilitators of mediation between human and supernatural realms, they were not the exclusive purview of elites, but instead had a more basic function as part of shamanic tool kits.

Several larger caves have multiple chambers. At Xmuqlebal Xheton Cave, located at the margins of the Muklebal Tzul Valley (see Figure 8.2), we found a large mixed-artifact assemblage, as well as numerous trappings of specialized ritual activity, in the dark zone (Figure 8.11). The cave consists of six chambers on three levels and is difficult to access, requiring ropes to negotiate the vertical entrance. The majority of the vessels in the cave were large unslipped jar forms, of which thirty-two were recovered. We found these both as isolated vessels and in clusters. The majority of these were inverted, but of those found upright, four had large bowls covering them as lids. Seven were stacked, and, in one case, they were stacked four high. Other artifacts included a complete basalt *mano,* likely from the Guatemalan Highlands; large chunks of hematite-based pigment; and several dozen fragments of carbonized pitch-pine torches.

By far the most unusual artifact is a wooden figurine of a male deity or human

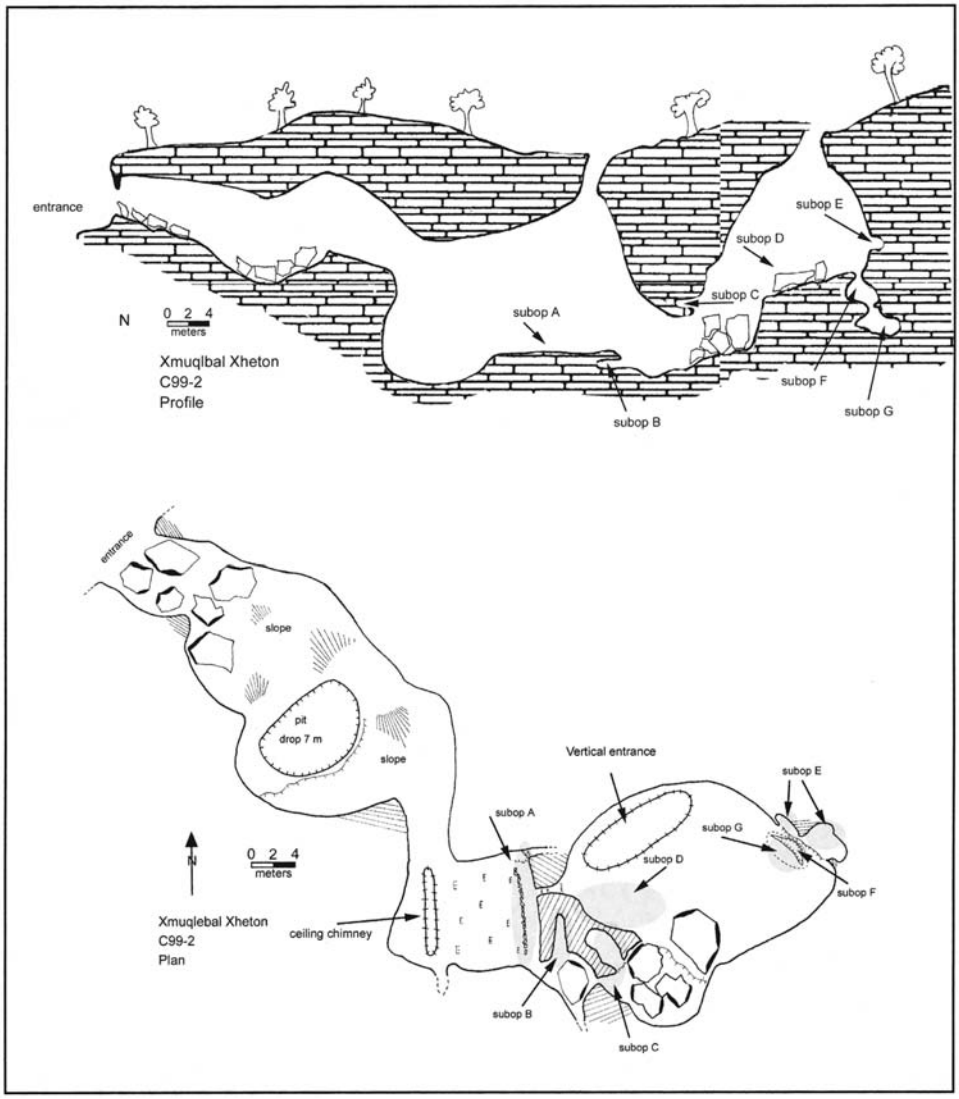


Figure 8.11. Profile and plan maps of Xmuqlebal Xheton Cave.

(Figure 8.12). The figurine is carved from a cylindrical piece of wood twenty-nine centimeters long and three centimeters in diameter (Prufer et al. 2003). The upper body and head are carved in the round. The lower portion of the figurine, including the legs and a garment, is carved in low relief. Both earlobes are drilled and may have had attached ornaments that are now missing, though we made considerable effort to locate them in the cave. The figure also

has a headdress or hair that projects over the back of the head and connects to the body at the middle of the back. In the individual's left hand is an object that appears to be a fan.[5] The right hand once held an object, possibly a staff, but that object also is missing. The artifact has been radiocarbon dated to AD 700 +/-35, calibrated AD 690–781 (AA36481), making it contemporaneous with the occupation of Muklebal Tzul. Most Maya depictions of figurines come from ceramic or monument iconography, where they are clearly shown as the ritual paraphernalia of elites and symbols of status and power, most frequently as God K (Coe 1980:254, and Fig. 55; Coggins 1988; Reents-Budet 1994:Fig. 1.3). This is not God K, however, and it is likely an ancestral deity or historical personage, possibly from the nearby Muklebal Tzul site (Prufer et al. 2003). While it may represent an elite individual, it remains that these types of objects are also associated with a number of other types of individuals, including merchants (Thompson 1970:137) and shamans (Landa 1941:160; Redfield and Villa Rojas 1934:107–109; Roys 1965:xvi; Wisdom 1940:431). It may well be that in Pre-Columbian times, staves or figurines were greatly elaborated, with

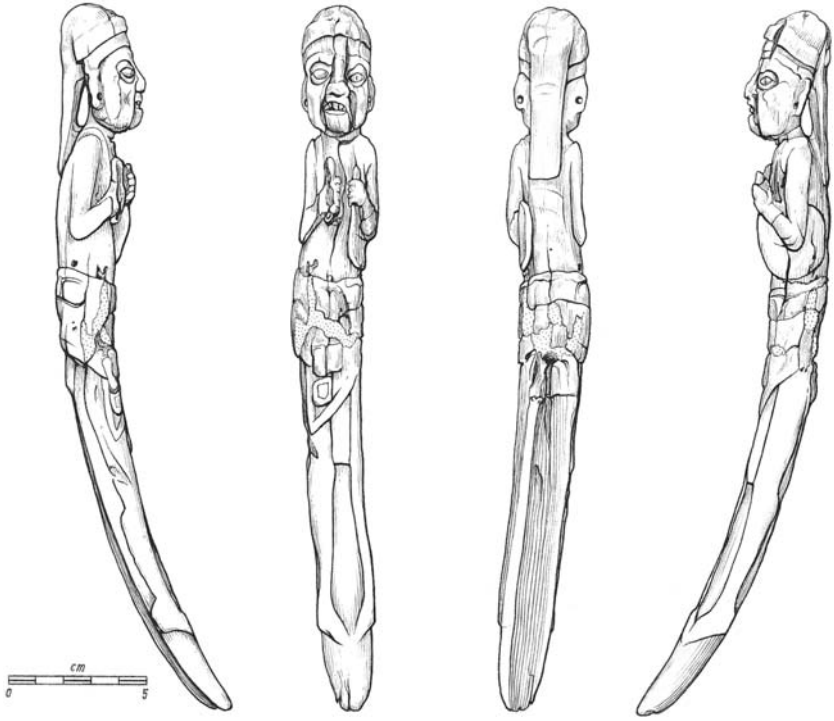


Figure 8.12. Scale drawing of the Xmuqlebal Xheton figurine, which represents a historical figure or ancestral deity.

many statuses having their own staff of office. Our limited knowledge of them is largely due to preservation of elite texts and iconography on durable materials as well as lack of preservation of wooden materials such as figurines in common contexts.

Conclusions

This chapter explores the multiple ways that ritual specialists operate in social communities to help us better understand who the actors were in ancient Maya cave rituals. Expanding discussions of the roles of shamanic and inspirational practitioners to include political, social, and medical levels can only enhance our ability to interpret observable cave contexts that otherwise might be merely described as the result of ritual activities. Maya ritual specialists, like their counterparts in all other societies, were deeply involved in complex social and political networks that were never static, but subject to change in both motivation and expression. The remains of these individuals' activities are manifested differently in different contexts. Comprehending the potential dimensions of these manifestations may help illuminate the deep complexities of Pre-Columbian belief systems.

While the role of ritual specialists has long been linked to elite institutions and the fortunes of divine kingship, the presence of shamanic individuals operating outside of mainstream political institutions or at the margins of society has been inadequately discussed in archaeological literature. Caves, however, are the best context in which to explore the roles of these individuals in ancient Maya society. Well-preserved in situ deposits representing the indisputable remains of ceremonial behaviors allow archaeologists to begin to explore data in terms of what types of ritual protagonists were responsible for their deposition. Comparative ethnographic, ethnohistorical, epigraphic, and archaeological surface-site data can be more fully utilized as analogical tools when target contexts are clearly defined remains of ritual activities. Overcoming these obstacles is the first step in being able to determine who was involved in these activities and why.

As discussed above, the blending of public and private cave activities is reflected in rockshelters located near the settlement zone of the ruin Ek Xux. These contain multiple interments with unelaborated grave furniture as well as a variety of artifacts commonly associated with dark-zone cave activities. In some caves with both large entrances and extensive dark zones, there are clear differences between artifact types found in the semilight zone and those found in the dark zones. These data imply that it may be possible to discern the activities of at least two types of ritual practitioners. First, those who operated within the

political hierarchy may have utilized semilighted cave areas as an arena for public rituals intended potentially to legitimate elite ancestral ties and the sanction of earth deities; it is likely that some of these individuals were ritual practitioners, elites, or both. Second, some specialists who operated in the dark zones of caves, out of view of the public, may have been individuals not so politically aligned. The dark and dangerous nature of those zones, both physically and in Maya spatial conceptions, likely made them the purview of specialists involved in the illness and healing complex; material evidence reflects what were likely small, highly private rituals aimed at earth deities for more individuated purposes.

A principal point of this discussion has been variability among and between different types of caves. Further, this chapter asserts that caves were fundamental ritual features in the ancient Maya worldview. Contemporary and historical accounts of the role of caves in creation mythology and the afterlife reinforce the concept that "nature" is a culturally defined term. Caves were not just natural features worshiped by the Maya—they represented principal avenues for communication with venerated deities whose activities were believed to affect all segments of society. These features were utilized, replicated, and embedded in all aspects of Maya ceremonial life. Ritual specialists mediated the relationships between earth-focused spiritual forces and society, not just at the level of political authority, but also with regard to the needs and aspirations of non-elite Maya. Caves represent the principal locations that reinforced the ability of ritual specialists to negotiate power relationships within communities in a variety of ways. Our ability to interpret the multifaceted dimensions of Pre-Columbian religions is dependent on our understanding of the potential breadth of the social actors involved.

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The concepts outlined in this chapter developed from conversations with Jonathan Hill, C. Andrew Hofling, Don Rice, Pru Rice, Tim Pugh, and, especially, James Brady.

Notes

1. The tilde preceding the morpheme in *-kubu* indicates nasality (Kaye 1971).

2. All the animal crania were disturbed from their original context by the looters, though they can be seen atop a rock in a photograph taken by the looters in 1992. We observed that all of the crania (which are friable because of age) displayed what appeared to be kill holes in the right parietal bones, leading us to speculate that they may have been sacrificed or damaged as part of the cave ritual. While other mammal bones were found in the rockshelter, they do not represent, in total, the remains of the animals whose crania were recovered. It remains possible, but not likely, that the mammals were the victims of predator attacks after the site was abandoned.

3. *Candeleros,* which were likely used for burning incense, have been found at numerous sites, including Copan (Willey et al. 1994:214–218).

4. Similar limestone blocks were found in a cave in an adjacent valley. The sides of these stones, while polished from use, are not smooth enough to have been used to burnish pottery. One of the recovered blocks had residues of limestone plaster on its longitudinal surface, leading to speculation that they may have functioned to polish plaster. They have also been found at Copan (Willey et al. 1994:242).

5. This is a feature not uncommon in Late Classic iconography (Schele and Miller 1986:143, 152). While there remains a possibility that the object may be a shield, its position tucked under the arm matches that of numerous objects depicted on ceramics and monuments that have been interpreted as fans. Coggins and Ladd (1992:270) note that one of the figurines recovered from the Cenote of Sacrifice at Chichen Itza may be holding a handled fan in the right hand. In Late Classic iconography, a clear image of such a fan tucked under the arm is shown on the Chama Vase from the University Museum of Philadelphia (Kerr Archive, Vase K-593; see www.famsi.org/kerr).

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CHAPTER 9

Cave Stelae and Megalithic Monuments in Western Belize

JAIME J. AWE, CAMERON GRIFFITH, AND SHERRY GIBBS

Introduction

Investigations by the Western Belize Regional Cave Project (WBRCP) have documented three caves in western Belize that contain vertically standing megalithic monuments. Because these monuments resemble stelae found in Maya sites, we are applying the term "stelae," although we recognize that the cave examples in western Belize are shorter than most surface-site monuments and bear no inscriptions. It is equally important to note that, unlike speleothems, which were sometimes placed in an upright position and rarely modified, the stelae in these caves were produced from either slate or limestone and generally display evidence of modification. The monuments were also erected within recessed cave chambers and are accompanied by cultural materials that are associated predominantly with ritual activity. Because stelae are chiefly discovered within the central plazas of major surface sites, and because they are traditionally associated with ancient Maya rulership, the occurrence of these monuments in subterranean contexts offers intriguing new data on Pre-Hispanic Maya cave activity and has important implications for our understanding of Maya cave ritual (Figure 9.1).

Archaeological Context

Between 1992 and 1998, the WBRCP recorded a total of four stelae in three caves in the western Cayo District of Belize. Two of the monuments were found in Actun Tunichil Muknal, one in Laberinto de las Tarántulas, and the other in Actun Chechem Ha (Awe 1994a, 1994b). Actun Tunichil Muknal and Laberinto de las Tarántulas are located approximately 2.5 kilometers from each other (Figure 9.2) in the upper Roaring Creek Valley. Chechem Ha Cave lies approxi-

mately 20 kilometers to the west of Tunichil Muknal, within a range of limestone hills that overlook the western banks of the Macal River (see Figure 9.2).

Actun Tunichil Muknal

Actun Tunichil Muknal (Cave of the Stone Sepulchre) was first discovered, named, and explored by geomorphologist Tom Miller in 1986 (Miller 1989, 1990). A British speleological expedition (Marochov and Williams 1991; Roberts 1990) visited the site in 1989 and published the first map of the cave system in 1991 (Figure 9.3). The investigations conducted by the WBRCP began in 1993 and continued into the summer of 2000.

Actun Tunichil Muknal is approximately five kilometers in length and has a perennially active stream, which flows through the major cave passage (see Figure 9.3). The cave has five entrances. From north to south these include the Main and Upper Entrances, the Sinkhole Entrance, and the South Entrance. In addition, the cave is also accessible at its western extremity. The Main (or downstream) Entrance resembles a double gothic-like archway with a deep blue pool below and serves as the primary access point into the cavern.

During the course of archaeological investigations, we identified four major loci of prehistoric Maya activity in the cave: the Upper Entrance Chamber, the Sinkhole Entrance, the Stelae Chamber, and the Main Chamber. The Upper Entrance Chamber contains several small alcoves, one of which has a low masonry platform and is one of only two sections of the cave with cultural material dating to the Early Classic Period. The Sinkhole Entrance can be divided into two sections: a high, narrow, breakdown room; and a series of narrow and interconnected tunnels and crevices. The latter contain numerous fragments of broken pottery, including some Early Classic material amid a predominantly Late Classic assemblage.

The major area of ancient cultural activity in Tunichil Muknal is the Main Chamber. This large area lies about 500 meters south of the Main Entrance and is within a high-level passage that splits off from the river passage upstream then rejoins the streamway about 50 meters to the southwest of the Stelae Chamber. The Main Chamber is approximately 350 meters long and about 50 meters at its widest point. Its floor consists of a series of travertine dams that descend gradually toward the eastern entrance of the chamber.

The northwestern section of the room is covered with an area of active cave formations amid a series of massive columns. Cultural remains within the Main Chamber include more than one hundred whole and fragmented Late Classic Period pottery vessels, several *metate* and *mano* fragments, small pieces of jade, pyrite plaques from a mosaic mirror, chipped stone tools, and the skeletal re-

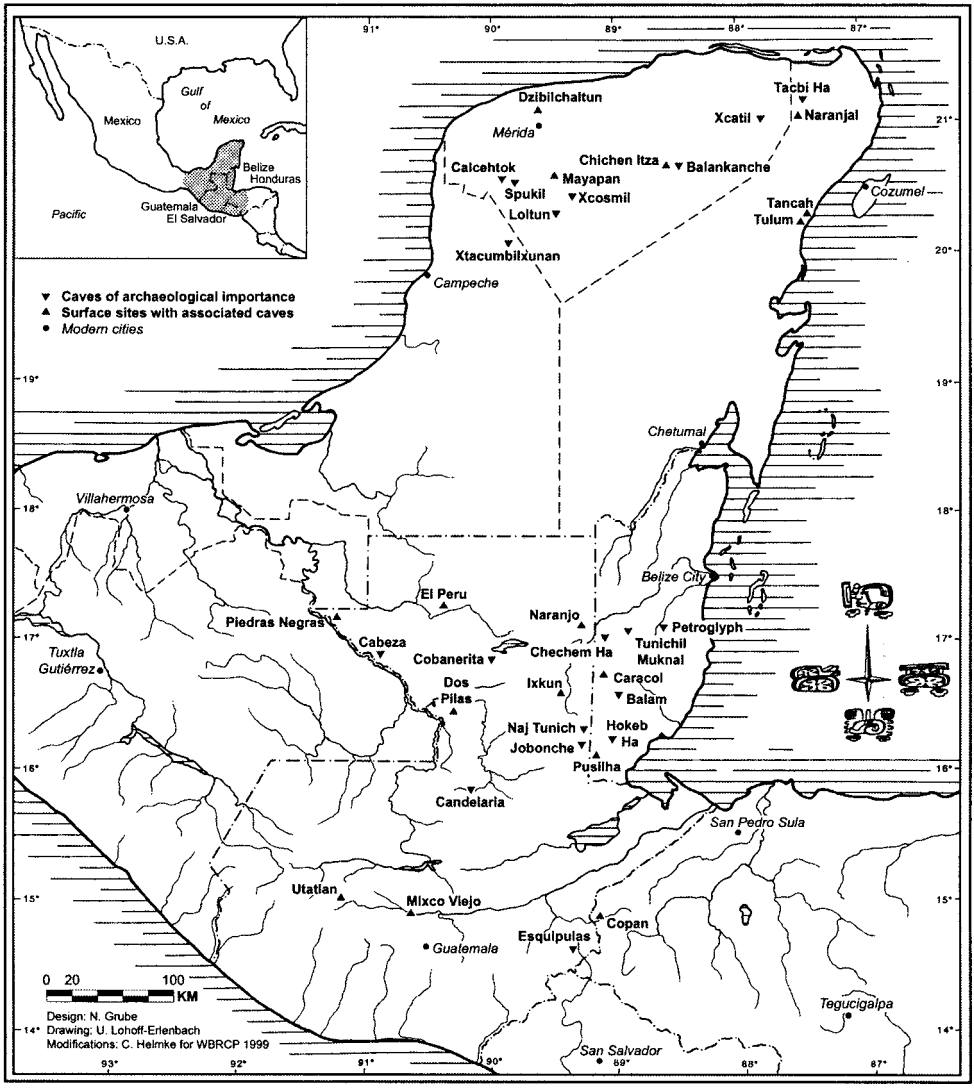


Figure 9.1. The Maya area of western Belize, with major caves and associated surface sites. Drawn by U. Lohoff-Erlenbach.

mains of fourteen individuals. Except for a few jars and bowls, *metate* fragments, and a shoe-shaped pot that were cached high up between the columns, the cultural materials in the Main Chamber were predominantly deposited along the sides and on the floor of the room. The human remains included five adult males, two adult females, and seven children no older than seven years of age at death (Awe et al. 1997; Marochov and Williams 1991:41; Gibbs 1998).

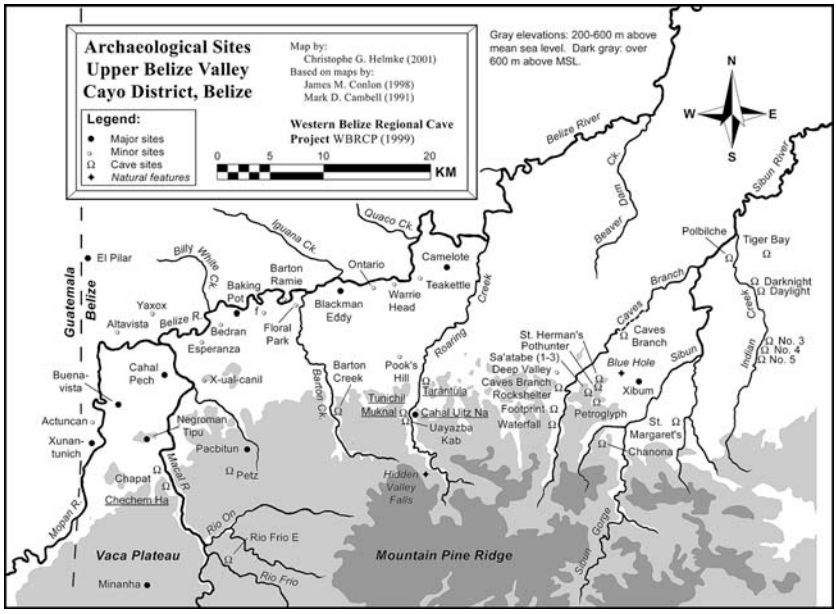
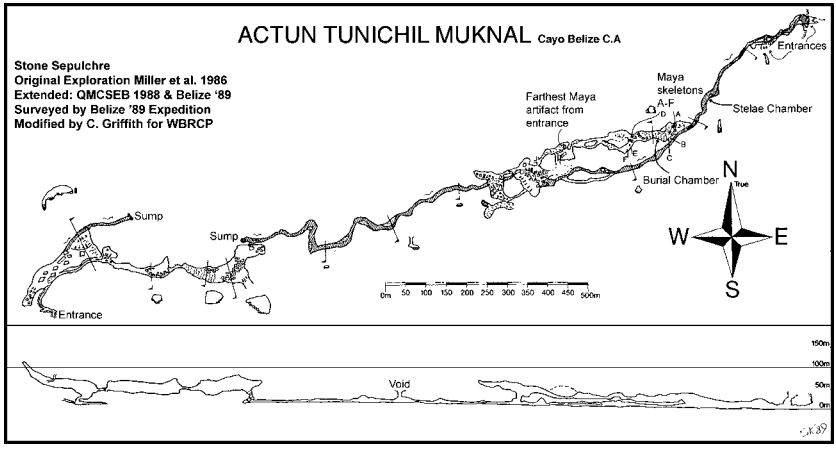


Figure 9.2. The Upper Belize River Valley, indicating location of sites mentioned in the text. Drawn by Christophe G. B. Helmke.

Figure 9.3. Actun Tunichil Muknal plan view. Map courtesy of Thomas Miller and QMCSEB.



Located approximately 50 meters northeast of the Main Chamber, and 500 meters south of the Main Entrance, the Stelae Chamber in Actun Tunichil Muknal is actually a small ledge located high (approximately 10 meters) above the north face of the river passage. The chamber is 4 to 5 meters wide, 5.3 meters long, and between 3 and 4 meters high. Except for a slight rise in elevation to the east, the floor is relatively level (Figure 9.4). Because the eastern edge of the chamber descends almost vertically toward a deep pool, the most feasible access is a 70-degree climb to the western end of the ledge.

We discovered most of the cultural remains in the Stelae Chamber within the western half of the ledge. Along the central axis of the chamber are two monuments (Stelae 1 and 2) that are held in a vertical position by several broken stalagmites and stalactites placed around their base (Figure 9.5). Both stelae were produced from slate that was likely acquired from the Roaring Creek River or from a slate face deep inside the river passage (see Marochov and Williams 1991:41).

Stela 1 is 1.22 meters high, 22 centimeters wide at base, 30 centimeters wide at center, and tapers to about 11 centimeters at the top (Figure 9.6). The average thickness of the monument is 8 centimeters. Nine carved scallops on either side of the stela give it a form that strongly resembles that of a stingray spine. A comparable analog to Stela 1 from Tunichil Muknal is Sculpture (CPN 15031) from Structure 8L-74 from Copan that, according to Ashmore (1991:209, and Fig. 6), was "interpreted as depicting a stingray-spine bloodletter."

Stela 2 (Figure 9.7) is 1.10 meters high, 21 centimeters wide at base, 19.5 centimeters wide at center, and tapers to 6 centimeters at the top. Thickness varies between 6 and 8 centimeters on average. Unlike Stela 1, Stela 2 is not scalloped along the sides, but the top is carved to a point, possibly in an attempt to render the monument in a form akin to that of an obsidian bloodletter. Lending some support to this interpretation is the presence of two thin obsidian blades with tapering points (bloodletters) at the base of the monuments (see Figure 9.4b).

Several other cultural remains (Figure 9.8) were found on the floor of the small chamber, including a small slate artifact (Figure 9.4F; Figure 9.8f), a crustacean element (Figure 9.4H), and fragments of five, possibly six, pottery vessels (Figure 9.4 A–E; Figure 9.8 a–e).

A slate tablet (Figure 9.9) was located 2.33 meters west of Stela 1. It is 25 centimeters wide, 52 centimeters long, and averages between 3 and 5 centimeters in thickness. The top end of one side of the tablet is crudely carved in the form of a simple face with large fangs across the mouth. The circular eyes and fanged mouth of the carving exhibit features that are characteristic of Chac and Tlaloc-like depictions in Postclassic effigies of these deities (Taube 1992:133–136; and personal communication with Awe, 2000). Similar repre-

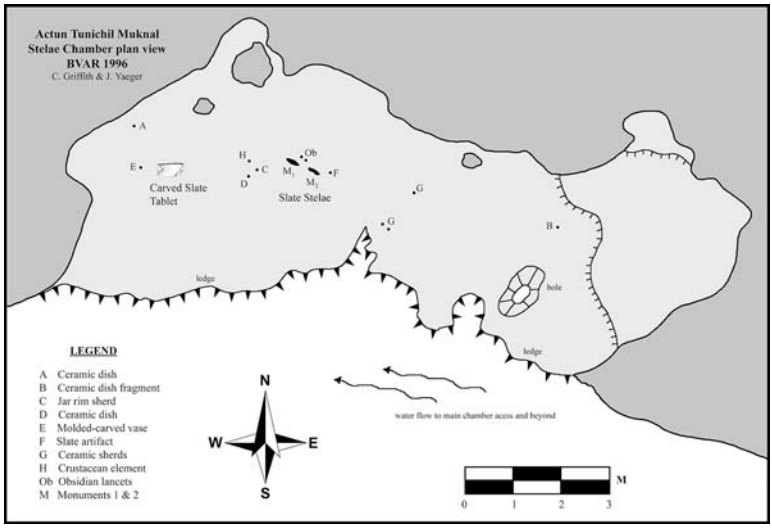
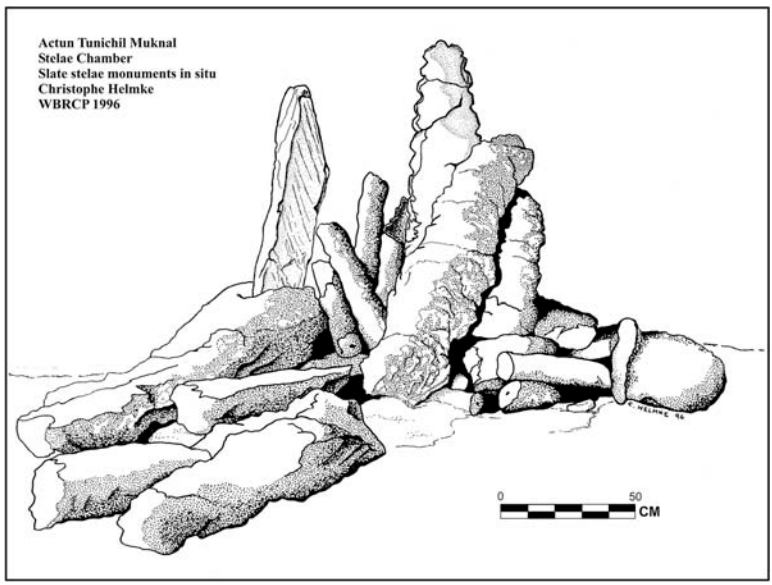


Figure 9.4. Actun Tunichil Muknal Stelae Chamber plan view. Drawn by Cameron Griffith.

Figure 9.5. Actun Tunichil Muknal stelae monuments in situ. Drawn by Christophe G. B. Helmke.



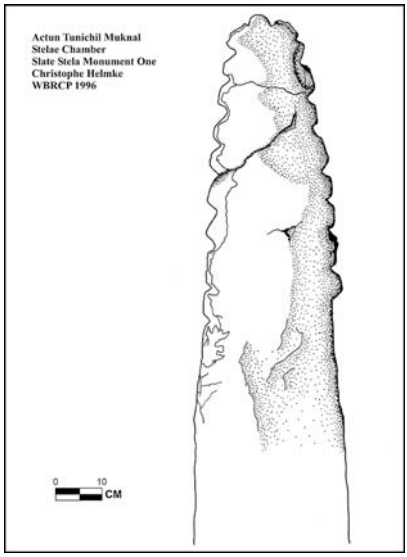


Figure 9.6. Actun Tunichil Muknal slate stela 1. Drawn by Christophe G. B. Helmke.

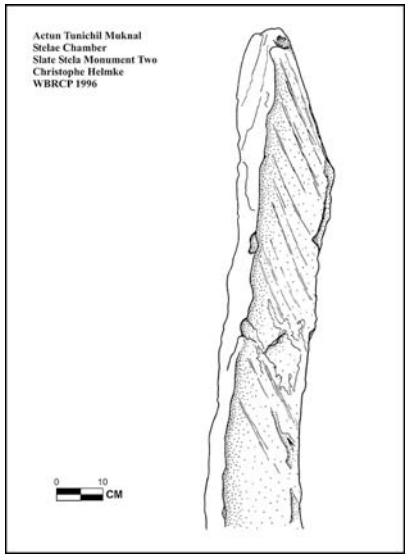


Figure 9.7. Actun Tunichil Muknal slate stela 2. Drawn by Christophe G. B. Helmke.

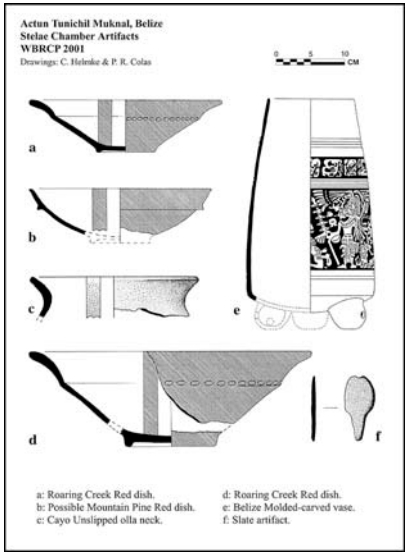


Figure 9.8. Artifact assemblage from Actun Tunichil Muknal Stelae Chamber. Drawn by Christophe G. B. Helmke and Pierre Robert Colas.

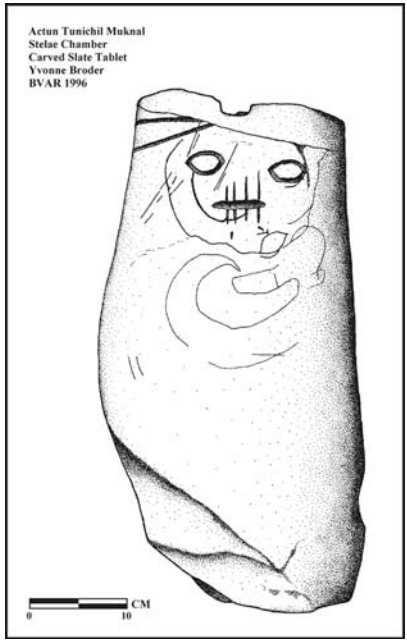


Figure 9.9. Carved slate tablet from Actun Tunichil Muknal Stelae Chamber. Drawn by Yvonne Broder.

sentations have also been reported in the rock art of the Yucatán, particularly in Actun Pak Chen, Quintana Roo (Rissolo 2001:133, Fig. 4.5.5).

Two of the fragmented ceramic vessels (Figure 9.4A, D; Figure 9.8a, d) in the Stelae Chamber are Red Ware dishes with basal breaks and everted rims. Both were identified as Roaring Creek Red: Roaring Creek Variety (Vaca Falls Ceramic Group) of the Late Facet, Terminal Classic, Spanish Lookout Complex in the Belize Valley (see Gifford 1976). The other pottery included sherds of a Cayo Unslipped jar (cf. Gifford 1976) (see Figures 9.4C, 9.8c) and fragments of a nearly complete Modeled-carved vase (Figures 9.4E, 9.8e, 9.10) with close affinities to vessels from Footprint and Chanona Caves (see Graham et al. 1980). A study of Modeled-carved vessels by Helmke (1999) notes that this ceramic type bears general similarities to Terminal Classic, Pabellon Modeled-carved pottery from the Petén (Adams 1971:49–51; Sabloff 1975:195–204), but shares greater similarities with Terminal Classic/Early Postclassic specimens from the Belize River Valley region.

Laberinto de las Tarántulas

Laberinto de las Tarántulas (Tarantula Cave) is located within a large hill about 1 kilometer east of Roaring Creek and approximately 3 kilometers downstream from Actun Tunichil Muknal, 1.7 kilometer north of Actun Yaxteel Ahau, and 3.5 kilometers north-northeast of Cahal Uitz Na (see Figure 9.2). A local milpa farmer first brought the presence of the site to the attention of the WBRCP in May 1996, and exploration began shortly thereafter. During the initial reconnaissance, hundreds of arachnids of varying size were encountered in the winding cave passages, hence the name of the site.

Tarantula Cave has two entrances, both located on the western flanks of the hill. The main entrance (Entrance 1) is a small opening about ninety centimeters high by three meters wide (Figure 9.11). This opening leads into a low domed chamber that is approximately five meters in diameter and three meters at its highest point. The floor of this entrance room is littered with Late Classic pottery fragments and displays substantial evidence of recent human activity (looting).

At the southern corner of the entrance room there is a narrow crevice that drops sharply downward to a narrow passageway. This passageway then gradually spirals upward until it reaches the Stela Chamber, which is situated above the level of the entrance room (see Figure 9.11). The Stela Chamber measures 9 meters long (northeast to southwest) by 4.5 meters wide (northwest to southeast). As Helmke et al. (1999:208) note, "Breakdown in the chamber slopes sharply downward from the walls to the center of the room," resulting in a floor

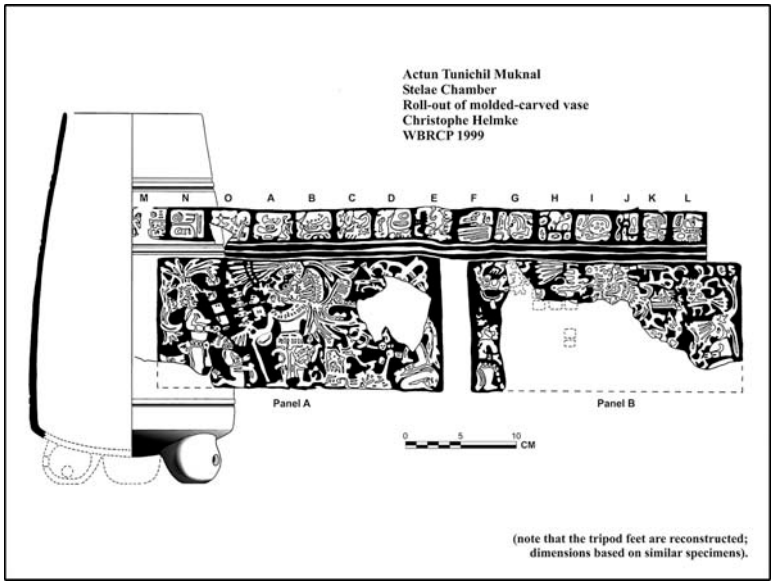
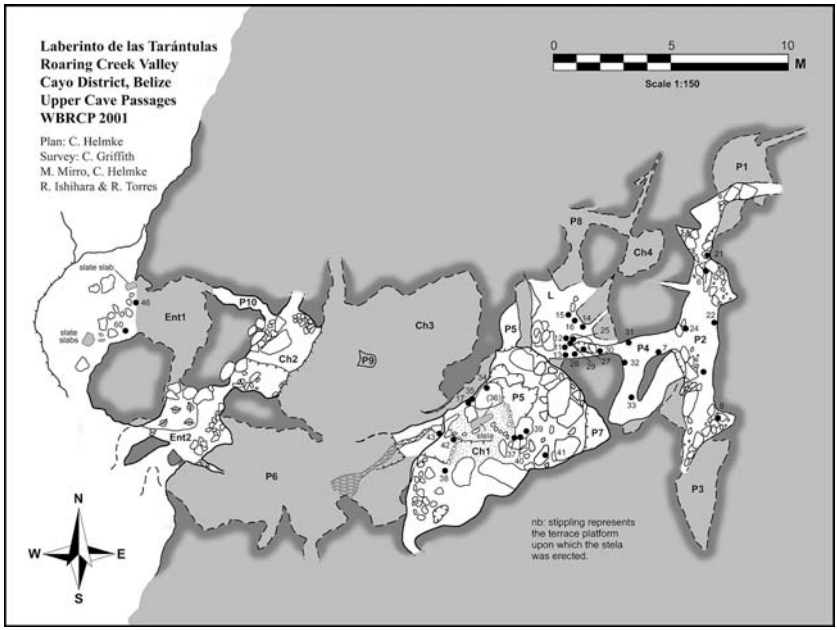


Figure 9.10. Molded-carved vase from Actun Tunichil Muknal Stelae Chamber. Drawn by Christophe G. B. Helmke.

Figure 9.11. Laberinto de las Tarántulas upper passages plan view, featuring the Stela Chamber. Drawn by Christophe G. B. Helmke.



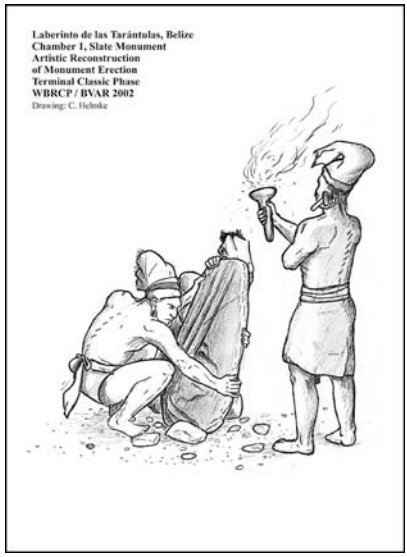


Figure 9.12. Reconstruction of Laberinto de las Tarántulas stela monument in situ. Drawn by Christophe G. B. Helmke.

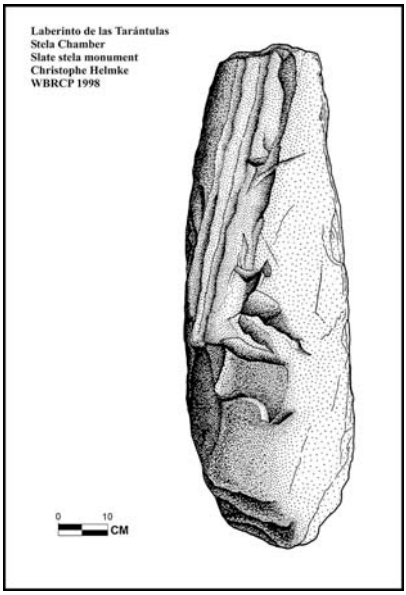


Figure 9.13. Laberinto de las Tarántulas slate stela monument. Drawn by Christophe G. B. Helmke.

surface that is only 2.5 meters (north-south) by 3 meters (east-west). In the middle of the room, "the Maya erected dry-laid retaining walls on the eastern and western flanks of this pile of breakdown. The walls retain soil and colluvium that were transported to the chamber to create a level surface atop the pile of breakdown. It should be noted that without these architectural modifications it would have been difficult to erect the stela. Consequently it appears that the retaining walls were constructed to facilitate the erection of the slate monument" (Helmke et al. 1999:208).

The stela was found lying on its side almost at the center of the floor area of the small chamber. It is quite possible that the monument was originally set in a vertical position and was only recently dislodged by looters (Figure 9.12). This interpretation is suggested by the presence of a small pile of boulders encircling a depression at the center of the room, by several chips and flakes of slate that appear to have been recently broken off the monument, and by widespread evidence of looting throughout the cave.

The stela is 1.06 meters in length, 27 centimeters wide at its base, 36 centimeters wide at center, and tapers slightly to 23.2 centimeters at the top (Figure 9.13). Its average thickness is 3 centimeters, and this is fairly uniform from top to bottom. Like the Tunichil Muknal monuments, the Tarantula Cave stela was

produced from slate and displays clear evidence of having been cut and dressed along the sides.

Cultural remains in association with the stela were minimal, but this pattern may reflect the rampant looting activity rather than the original situation. Indeed, we found potsherds, many with fresh breaks, around the perimeter of the room. This small ceramic assemblage included Roaring Creek Red: Roaring Creek Variety, Cayo Unslipped types, and fragments of a Cabrito Cream–polychrome vase, all dating to the Late Classic Spanish Lookout Complex in the Belize Valley. In front of the pile of rocks that may have originally held the stela in a vertical position we found flecks of charcoal and some ash. Passages that lead from the Stela Chamber also contain nine complete and seven partial vessels.

Chechem Ha Cave

Actun Chechem Ha (Cave of the Poisonwood Water, also known as Vaca Falls Cave) is a relatively small (approximately 250 meters long) but complex cave located on a steep hill on the western bank of the Macal River. With only a small area in the main tunnel that has active drip-water formations, Chechem Ha is also best described as a dry cave. The site was discovered by a local farmer in 1991 and was initially explored by members of the Belize Department of Archaeology and mapped by British spelunkers that same year (Williams 1992). In 1996, 1998, and 1999, the WBRCP remapped the cave, excavated several units, and point-plotted all cultural remains within the site (Figure 9.14).

The entrance to Chechem Ha is a small 1.5 meter high by 2.5 meters wide opening high on the western face of the hill. Beyond the entrance a high narrow passage gradually descends into the cave interior until it eventually constricts into an impassable tunnel about 245 meters from the entrance. Several alcoves and small chambers are located at different elevations above the floor of the main passageway. The Stela Chamber is at the end of a low tunnel (Tunnel 2) that extends from Chamber 3. Tunnel 2 is initially narrow but then widens slightly before dropping sharply downward to the Stela Chamber.

The recessed Stela Chamber is approximately 245 meters from the entrance to the cave. The room is 9 meters wide by 15 meters long and more than 20 meters high (Figure 9.15). The stela is set in a vertical position at the center of the chamber and is encircled by a ring (1.9 meters in diameter) of roughly hewn limestone blocks (Figure 9.16). In front and along the east side of the stela there is an upright speleothem approximately 40 centimeters in height (Figure 9.16). A small cavity at the top of the speleothem contains ashes and flecks of charcoal. Unlike the monuments at Tarantula Cave and Tunichil Muknal that were, and

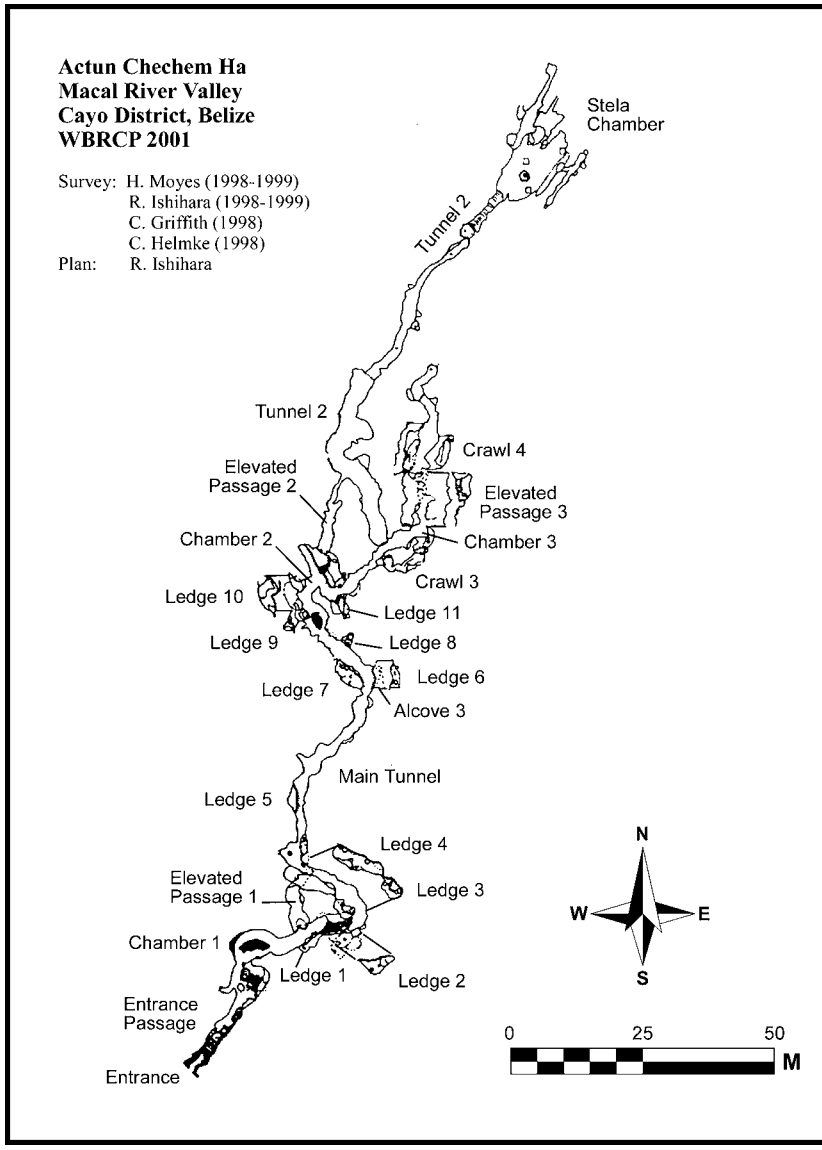


Figure 9.14. Actun Chechem Ha plan view. Drawn by Reiko Ishihara.

are, held in place by rocks or broken stalagmites/stalactites, respectively, both the stela and the speleothem at Chechem Ha are freestanding.

The Chechem Ha stela is 0.78 meters in height and between 8 and 10 centimeters in thickness (Figure 9.17). It is 40 centimeters wide at base, 47 centimeters wide at center, and tapers to 22 centimeters at the top. Its raw material is limestone that may have been broken off from the brecciated walls of the Stela

Chamber or cave passage. Surface collection on the floor of the Stela Chamber recovered a few potsherds and several animal bones. On a small ledge high above the floor of the room there is a jar containing uncarbonized nightshade (*Solanum* sp.) seeds, which were most likely deposited naturally by bats (Morehart 2002:172–173). Five excavation units in the Stela Chamber recovered only

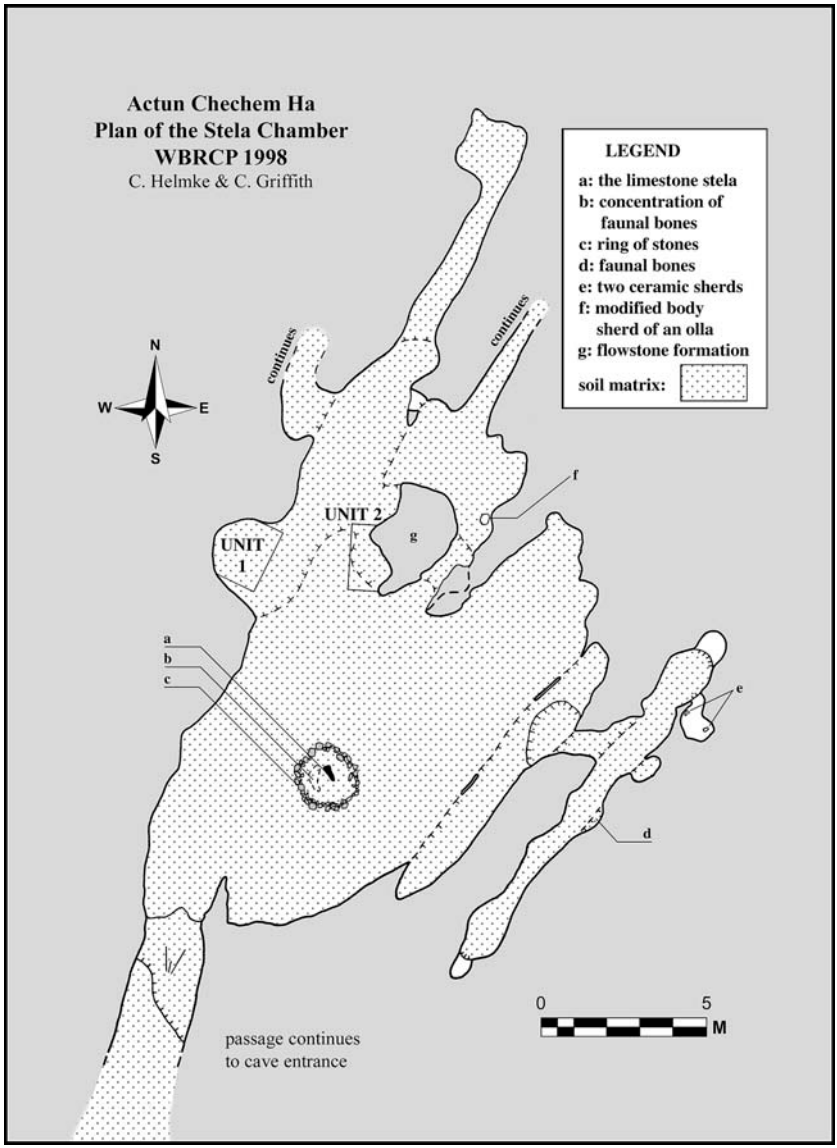


Figure 9.15. Actun Chechem Ha Stela Chamber plan view. Drawn by Christophe G. B. Helmke.

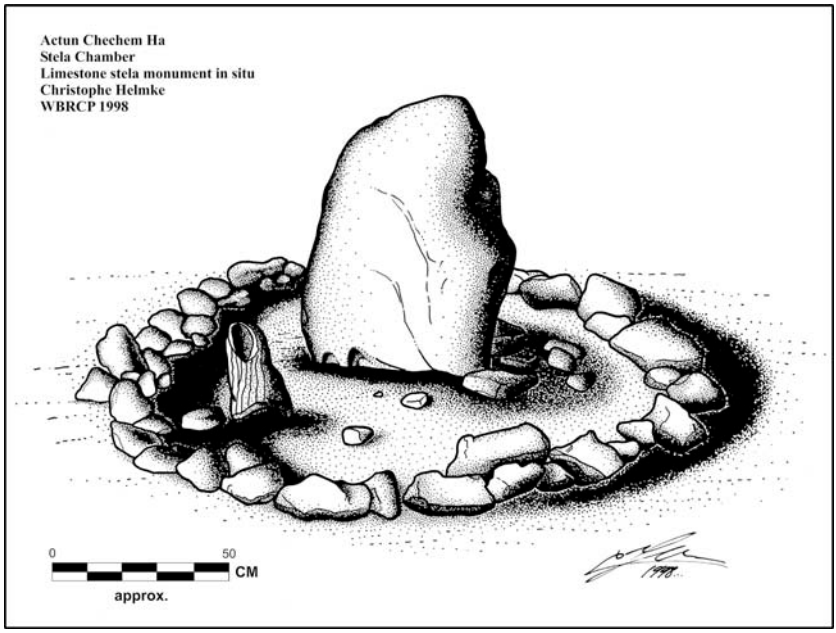


Figure 9.16. Actun Chechem Ha limestone stela monument in situ. Drawn by Christophe G. B. Helmke.

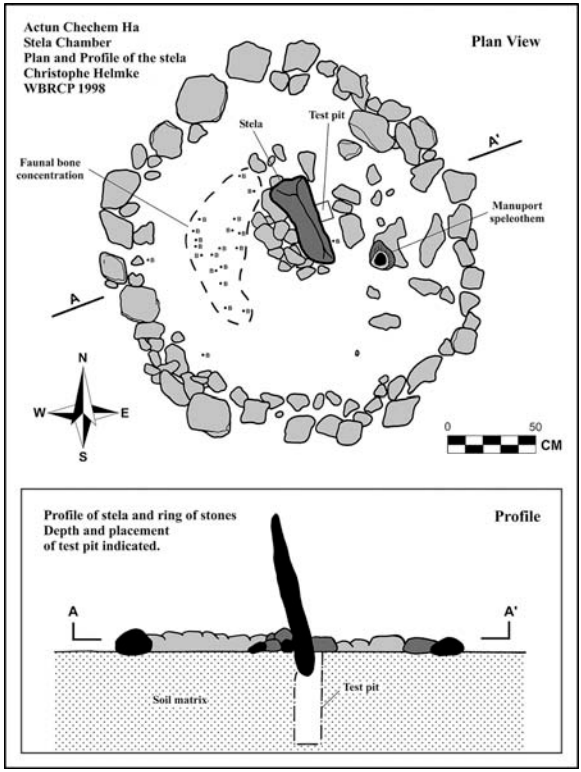


Figure 9.17. Actun Chechem Ha stela monument plan and profile views. Drawn by Christophe G. B. Helmke.

two nondiagnostic body sherds along with a large assemblage of animal remains (see Figure 9.15). Preliminary analysis of the faunal material has identified remains of jaguar, gibnut (paca), tapir, and several birds (Howard Hecker, personal communication with Awe, 1999).

Most of the ceramic remains in the Stela Chamber at Chechem Ha are concentrated along the sides of the room and are predominantly represented by Late Classic jar forms. The caretakers of the cave provided us with fragments of three effigy censers, which they reported finding beside the western wall of the chamber, approximately three meters from the stela (personal communication with Awe, 1999). These vessels are hollow, cylindrical in form, and have projecting wings or flanges on either side. The front of the censers are modeled to represent faces with large rounded eyes, wide mouths, crooked projecting noses, and appliquéd cruller designs above the nose. These decorative elements are typical of Terminal Classic (AD 700–900) effigy censers depicting the Jaguar God of the Underworld and are generally classified as Pedregal Modeled in the Petén and Belize (Adams 1971:57; Awe 1985:263–267; Sabloff 1975:114–116).

We discovered cultural remains in addition to the materials in the Stela Chamber in practically all other areas of Chechem Ha Cave. Most of these remains, however, are concentrated in high, difficult-access alcoves and chambers. Along the main passage, about ten meters beyond the entrance, are several sherds of Savannah Orange and Reforma Incised that suggest that the prehistoric use of Actun Chechem Ha (or, at least of the cave entrance) may extend as far back as the Middle Preclassic Period (600–300 BC). Farther along the main passage there are a few fragmented basal flanged vessels of the Early Classic (AD 300–600) Dos Arroyos Orange Polychrome type, and Late Classic (AD 700–900) Mount Maloney Black bowls. On Ledge 6, high above the Main Tunnel (Figure 9.14), there is a large unslipped jar containing several small, immature maize cobs. Morphological study of the maize revealed that the cobs share numerous similarities with species of maize still cultivated in the Maya Lowlands (Morehart 2002:168–172).

Two other chambers in the cave contain several large jars (Cayo Unslipped), many of which are covered by inverted Mount Maloney Black bowls. Other vessels in these rooms include shallow dishes that have been identified as Benque Viejo Polychrome and Platon Punctated Incised, both dating to the Late Classic.

Comparisons

Prior to this report, there have only been two cursory accounts of "possible" stelae in the Maya area. The earliest account was published by Samuel K. Lothrop in 1924. According to Andrews and Andrews (1975:70; see also Bonor 1989:

154), Lothrop (1924:132–133) "described a cave at Tancah which had a large number of petroglyphs and a crude stela." Unfortunately, none of these authors provide a detailed description of the actual monument, and they present only limited information about the context in which the stela was discovered. We therefore have no information about the size of the stela, its raw material, its location within the chamber, or the nature of associated cultural remains.

The second account is considerably more informative, but the presence of an actual cave stela may be debatable, since it derives from our interpretation of data previously recorded by E. Wyllys Andrews IV. In his description of Balankanche Cave in the Yucatán, he (1970:12) reports discovering several artifacts in a section of the site designated as Group IV. The latter was a small domed chamber that represented the "limit of human penetration in this direction." Andrews (1970:12) notes that the offerings in Group IV were "scattered around a large slab of rock, which was propped up perpendicularly, apparently to imitate a stalagmite (figs. 7; 47, b). In front of this central slab of stone was a hearth, with several centimeters of charcoal from burnt offerings, including a number of shell and jade beads."

While Andrews's interpretation of the cultural remains in the chamber may be valid, a close examination of his Figure 7 indicates that the "slab of rock" in the room can be more accurately described as a megalithic monument and that, rather than imitating "a stalagmite," the monument more likely represents a stela (Figure 9.18). The form of the monument, its erect position at the center of the room, and the contextual distribution of the associated remains in the Group IV Chamber all support this interpretation.

Apart from the two Yucatán examples, the available literature describes only one other possible stone stela or megalithic monument in a Lowland Maya cave. Deep within Naj Tunich, in a passage of extremely difficult access referred to as K'u Multun, Stone (1995:128, and Figs. 5-45, 5-46) reports that explorers discovered

> a stone structure, which appears to have functioned as an altar, accompanied by votive offerings and a painted inscription (Figure 5-45).
>
> The altar consists of a meter-high heap of rocks shoved up against the wall (Figure 5-46). A flat rock lay at the top of the pile, though nothing was on it. Propped up by this mass of rocks is a vertical stone seventy centimeters high. The vertical rock bends and tapers nearly to a point over which the Maya had hung two olla rims . . . The stones comprising the altar were in all likelihood laboriously hauled up from the North Passage.

Based on the description provided by Stone, we propose that the K'u Multun feature in Naj Tunich most likely represents a stela/altar complex. It is also im-

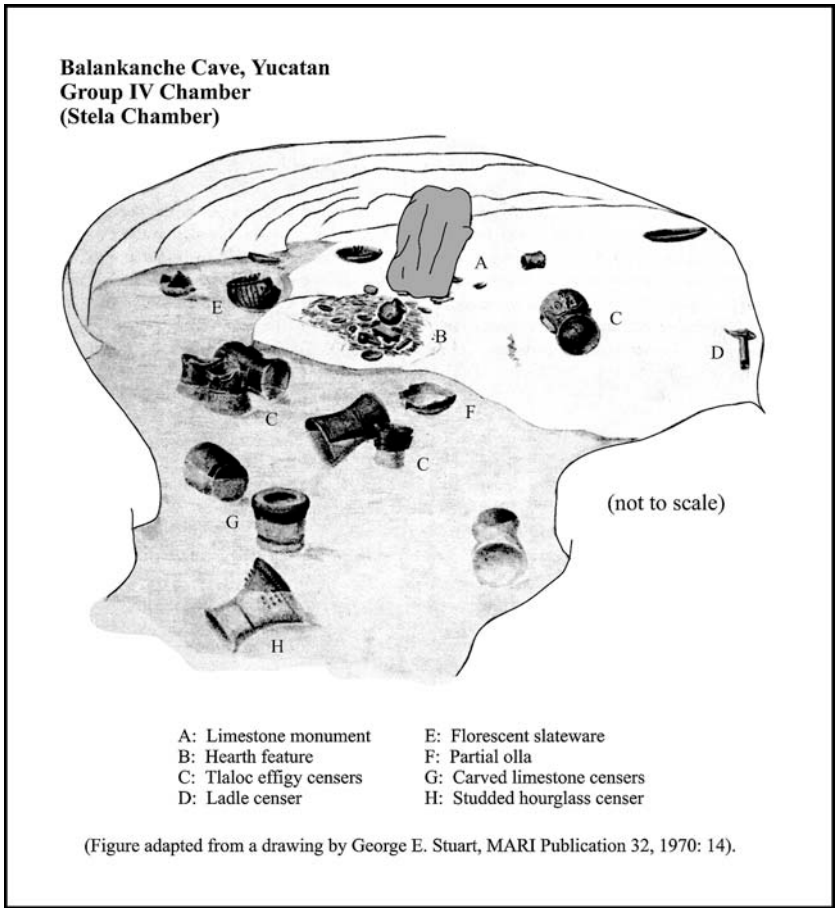


Figure 9.18. Plan of Group IV Chamber with stela, Balankanche Cave, Yucatán. After Andrews (1970).

portant to note that, like other examples of this possible cave stela/altar complex, the K'u Multun monument is comparable in size to that of Chechem Ha, was accompanied by evidence of burning, and was associated with votive offerings.

Despite the apparently limited distribution of cave stelae, several other investigators (see, e.g., Brady et al. 1997) have recorded a number of subterranean caverns (in western Belize and the Petén) where speleothems could have been purposely erected in a manner very similar to that of the monuments described above. At Petroglyph Cave (about 15 kilometers east of Tunichil Muknal; see Figure 9.2), for example, Reents (1980:18) reported the discovery of a 1.6-meter-long stalagmite that was held upright by numerous small rocks at its base. "Much pottery, obsidian, carved shell, and ash" were found in the fill

around the stalagmite (Reents 1980:18). In Te Tun Cave (approximately 5 kilometers east of Petroglyph Cave) Bonor and Martínez (1995) discovered a column carved with crude faces above a formation that was modified to resemble an altar. They (1995:257) further suggest that the carved column strongly resembles a stela and that the altar could very likely represent a "Cauac monster."

At Actun Kabal (about 10 kilometers south of Chechem Ha), McNatt (1996:90) reports the discovery of "two upright stones about 0.5 m tall and 0.2 m apart, supported by rock rubble. One of these stones was a broken stalagmite. Immediately in front of the uprights was a meter-square area of flat stones." In a chamber deep within this same cave, Stone (1995:130, and Fig. 9.5-48) notes that there is a ring of stones that joins an "altar like structure" upon which there are three speleothems set in vertical positions. A similar arrangement of three vertically set speleothems in association with an altar has been reported in a cave in the Bladen area of southern Belize (Prufer 1995).

In southwestern Belize, about fifteen kilometers from Chechem Ha, Rio Frio Cave E also contains evidence of a speleothem monument. In his publication of Anderson's excavations at Rio Frio, Pendergast (1970:8) reported that

> the principal feature in Rio Frio E apart from the pottery mass is a huge stalagmite of unusual shape, almost certainly moved to its present position, presumably from its original growth spot in the cave. The body of the stalagmite is a somewhat irregular hemisphere, with the flat surface resting on the cave floor; atop this is a small spherical section, giving the object the appearance of a seated human figure (Plates 3 and 4). Anderson examined this unusual object closely during his first visit, and found that there was a row of eight small circular depressions down the front, accentuating the effect of a cape covering the body. He also recovered burnt wood, charcoal and sherds coated with carbonized material from a roughly circular shallow depression in front of the "head."

Although Anderson interpreted the above speleothem as an idol, it is our opinion that the figure more likely represents an altar with a monument at its summit. We would also suggest that the eight circular depressions at the front of the figure have little to do with a "cape," but actually represent crude steps that lead up the altar to the small monument above. That the spherical section, identified by Anderson as the "head" of the figure, more likely represents a monument is further supported by the discovery of "burnt wood, charcoal and sherds coated with carbonized material from a roughly circular shallow depression in front of the 'head'" (Pendergast 1970:8). The association of altar/stela/burnt offerings appears to be a typical characteristic of the apparent Lowland Maya cave stela tradition suggested in this chapter, and although many idols (mostly

wooden) have been discovered in caves, it is possible that the Rio Frio Cave E figure more likely represents a stela/altar complex.

As in western Belize, several caves containing speleothem "monuments" have been discovered in the eastern region of the Petén Province of Guatemala (see Figure 9.1). At Naj Tunich, Brady et al. (1992:78, Fig. 3; also Brady et al. 1997) and Stone (1995:130) report the discovery of a restricted-access chamber containing an altar with six stalactites set in vertical positions above it. Furthermore, "The open space south of the altar is dominated by a large stalagmite, 1.82 m in height" (Brady et al. 1992:78). West of Naj Tunich, at the Cueva del Río El Duende near Dos Pilas, the Petexbatun Regional Cave Survey

> found a segment of stalagmitic column, approximately 3 m long and 0.5 m in diameter, lying on its side near the middle of the passage. A search of the area failed to find the place from which the shaft had originally come, and the weight of the piece ensures that it could not have been moved any great distance by natural forces. It was concluded that the shaft had been moved to that location by the Maya and could have been set vertically at one time, although there is no evidence for the latter. (Brady et al. 1997)

Brady et al. (1997:736) also report that in Xetish Cave, which is "one of the most sacred locations for the Ixil Maya," there is "a large stalactite set in the center of a great stone altar six feet high and 10 feet long."

While it may be argued that the assumed use of speleothems as monuments or stelae is questionable, it is important to note that the association is not without precedent. This is particularly true when we consider that at Yaxchilan a large speleothem was, in fact, carved and used as a stela (Tate 1992:132), and several other uncarved speleothems are believed to have served as monuments at the site (Maler 1903:154, 157–158, 179, 183).

Despite the Yaxchilan examples, however, the use of speleothems as monuments or stelae at either subterranean or surface sites is rare. In contrast, their use for practical and nonmonumental purposes is relatively common in the Maya Lowlands (see Brady et al. 1997). For example, they have been found carved into figurines at Downer's Cave near the Sibun River and in unmodified form within an axial cache in Ballcourt 3 at Baking Pot (Ferguson 1999; see Figure 9.2).

Implications and Discussion

The recent discovery of the stelae at Actun Tunichil Muknal, Tarantula Cave, and Actun Chechem Ha, the presence of similar monuments within caves in the Yucatán, and the possibility that speleothems may have been erected as monu-

ments within some caverns in the Petén and Belize provide intriguing new information on ancient Maya cave rituals. In order to fully appreciate the significance of these discoveries, however, there are several crucial questions that need to be addressed. For example, was the erection of cave stelae temporally sensitive? Are there similarities in the spatial/contextual distribution of these monuments from one site to the other? What kinds of rituals were associated with these monuments in caves, and why did the ancient Maya erect them?

In regard to the first question, data from western Belize suggest that the apparent cave/stela tradition in this subregion of the Maya Lowlands spans the Late Classic to Early Postclassic Periods (AD 800–1000). In the Yucatán, specifically at Balankanche, cultural remains associated with the monuments suggest a similar Terminal Classic to Early Postclassic date (AD 900–1200). The placement of vertically set speleothems in caves is also a contemporaneous (Terminal Classic) activity in both the Petén and Belize, and the speleothem stela (Stela 31) at Yaxchilan is believed to be of Late Classic date (Tate 1992:132). The available data, therefore, suggest that the practice of erecting stone and speleothem monuments in caves was a Late Classic to Early Postclassic tradition in the eastern Maya Lowlands. It must be noted, however, that the database is limited, and future investigations could very well extend the time frame for this cultural activity.

The contextual distribution of cave monuments also seems to reflect a similar pattern from one site to the other. At Balankanche, the small Group IV Chamber, which contains the stela, is very difficult to get to and is one of the two rooms farthest from the entrance (see Andrews 1970:Fig. 2). The same is true for the stela rooms in Chechem Ha and Tarantula Caves. At Actun Tunichil Muknal the Stela Chamber is not the room farthest from the entrance, but the location of the ledge high above the streamway and the necessity of traversing several deep pools and a complicated breakdown passage before reaching the monuments clearly demonstrate that accessibility to the Stela Chamber was both limited and challenging. Difficulty of access and distance from the entrance are characteristics that are also shared by the rooms with the stone monument in the K'u Multun chamber in Naj Tunich (Stone 1995:128), by the room with the six vertically set speleothems in the same cave (Brady et al. 1992), and by the chamber with the altar and speleothems in Actun Kabal (Stone 1995:130).

What kinds of rituals were associated with these monuments? While this question is more difficult to address, a careful examination of the artifacts associated with the monuments can provide important clues to the activities that were conducted around them. In front of the monument at Balankanche, Andrews (1970:12) found "a hearth, with several centimeters of charcoal from burnt offerings, including a number of shell and jade beads." Within the small room there were also about ten large "Tlaloc effigies, hour-glass censers . . . a few miniature metates and manos, and a dozen miniature pottery censers."

Additional offerings included "a variety of Chichen Slate vessels," other unslipped ceramics, and a "censer bowl with long hollow handle." At Chechem Ha Cave there is a small speleothem with a hollowed-out section containing ashes directly in front of the stela. The Tunichil Muknal chamber had two obsidian bloodletters and fragments of charcoal at the base of the stela. Around the monuments were also a Molded-carved vase with a glyphic Primary Standard Sequence, a carved slate slab with a depiction of Tlaloc, four ceramic dishes, and fragments of a large olla. At Rio Frio Cave E, Anderson (in Pendergast 1970:8) found "burnt wood, charcoal and sherds coated with carbonized material" in the circular depression in front of the upper portion of the speleothem. The stone monument in the K'u Multun chamber in Naj Tunich was associated with a large amount of charcoal, several pottery fragments, a piece of unworked jade, two fragmented ceramic vessels, and a painted Calendar Round date of AD 692 (Stone 1995:128–129). According to Stone (1995:128–129),

> That the Maya performed ceremonies at this altar is evidenced by eight piles of charcoal found in interstices and depressions within the mass of rocks. Most of the burning took place toward the top of the heap. The front surface of the tapered vertical stone was smoke-blackened from a fire set behind a small rock resting on the top of the rock pile . . . All available evidence points to the idea that a ceremony was performed at the altar that included smashing the plate, painting the inscription, and burning small fires on the altar.

The presence of charcoal within all the chambers containing monuments thus suggests that the burning of organic materials was an activity that accompanied most of the ceremonies conducted before these monuments. Given the large number of censers at Balankanche and the censers purportedly found at Chechem Ha, it is likely that one of the primary organic materials burned may have been incense.

Offerings of animals and/or shellfish and human autosacrifice may also have accompanied the burning of incense. This is suggested by the animal remains from Chechem Ha, Tarantula Cave, and Balankanche, by the obsidian blades recovered at the base of the stelae at Tunichil Muknal and at the base of the Petroglyph Cave speleothem monument, and by the forms of the Tunichil Muknal stelae. It is equally possible that the smashed ceramic bowls at Tunichil Muknal may have been used for holding bark paper on which blood was collected. Iconography depicting this practice is widespread in the Maya Lowlands (particularly at Yaxchilan) (Schele and Miller 1986:175–184) and is believed to have accompanied most elite rituals. Coincidentally, the carved stalactite stela at Yaxchilan depicts "three figures, two of them standing facing each other, wearing the pointed hipcloth and letting blood with inserted penis perforators" (Tate 1992:132).

Finally, why did the ancient Maya erect these monuments in caves? In a volume that examines the relationship between Maya iconography and cave ideology, Bassie-Sweet (1991:120) suggests that "Classic Maya stelae that record Period Ending events were erected to commemorate publicly the private or semiprivate cave rituals of the Period Ending ceremony *after* this ceremony had occurred . . . [and] the shape of the stela echoes the shape of the stalagmite found in the cave where the ceremony was performed." Thus, she argues, the erection of stelae at surface sites "may have been a memorialization of an earlier ceremony in which the completion of a calendrical period was marked by the setting up of a speleothem in a cave" (Brady et al. 1997:728).

While Bassie-Sweet's (1991) proposition is certainly intriguing, there are inherent problems with her hypothesis. If, for example, the erection of Late Classic stelae at surface sites indeed followed the previous erection of speleothems in caves, we should expect the frequency of vertically set speleothems in cave sites to be relatively high. Unfortunately, this does not appear to be the case, for there are far more caves reported without vertically set speleothems than with them. Given this limited distribution, Bassie-Sweet's proposition would perhaps have greater validity if the practice of erecting these monuments began in the late stages of the Classic Period, not too long before the stela tradition was discontinued and many of the sites in the Central Lowlands were abandoned. This could account for the relatively low frequency of stela and speleothem monuments in the caves from this area.

The stelae reported in this chapter further call into question Bassie-Sweet's proposed close connection between stelae and speleothems, since the Maya clearly eschewed the use of immediately available speleothems for slabs of slate and limestone that had to be modified and transported to particular chambers. Hopefully, future investigations will provide additional data that will allow us to more fully address these questions.

In contrast to Bassie-Sweet, and in reference to the speleothems in Naj Tunich, Actun Kabal, and the possible stela in the K'u Multun chamber in Naj Tunich, Stone (1995:130) suggests that the vertical thrust of these monuments is significant because "the ancient Maya attached notions of sanctity and status to verticality, evident even in the form of Maya Temples and stelae." Stone (1995:130) adds that "Maya art usually associates the highest figure in a composition with the highest rank or with supernatural status . . . [and the contemporary Maya] associate vertically elevated piles of stone with notions of sacredness . . . Thus, the vertical stone of the Naj Tunich altar might be understood as a marker of sacred space; the *olla* rims placed at the summit certainly emphasize the altar's vertical thrust."

We concur with Stone (1995), but, given that caves in general were considered sacred places by the Maya, we suggest that, in addition to demarcating sacred space, stelae and megalithic monuments may have been erected in par-

ticular chambers and caves that were exclusively reserved for rituals that were conducted by individuals of high status.

Conclusions

It was previously assumed that the stela cult and the practice of erecting megalithic monuments was an ancient Mesoamerican tradition that was limited to important surface sites. The discovery of vertically set monuments in Actun Tunichil Muknal, Tarantula Cave, and Actun Chechem Ha in Belize, at Balankanche, a cave near Tancah in the Yucatán, and possibly at Naj Tunich, Petén, dispels this notion and suggests that in the eastern subregion of the Maya Lowlands this tradition may have been extended to important subterranean sites. The data from these caverns further suggest that the practice of erecting stelae/monuments in caves was a late development that likely began in the Late Classic Period and continued into the Postclassic Period. The ceremonies conducted before these monuments may have included the burning of incense, animal sacrifice, and bloodletting.

Furthermore, we hypothesize that the ancient Maya may have erected these monuments and speleothems in caves as a means of marking sacred space and of demarcating chambers that were reserved for rituals performed by people of high status. It is our hope that future investigations will add to the number of cave sites with stelae/monuments and provide information that will allow us to better understand the nature of the ceremonies that were conducted in these sacred places by the ancient Maya.

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CHAPTER 10

A Cognitive Approach to Artifact Distribution in Caves of the Maya Area

ANDREA STONE

The cognitive maps that classify and organize the external world must be assumed to leave traces in the archaeological record. Although this fact should be a foregone conclusion, the taphonomic and spatial characteristics of artifacts found in Mesoamerican caves are rarely analyzed with the goal of discovering what those guiding principles were. This kind of approach, which fits under the rubric of "cognitive archaeology," defined as "the study of past ways of thought as inferred from material remains" (Renfrew 1994:3), can be applied productively to the study of artifact distribution in caves in the Maya area. Cave artifact assemblages are end products of a sequence of human actions guided by an ideology of space that encompasses caves and the larger landscape (Stone 1995: Chap. 3). The spatial component of the picture is particularly weighty, as caves are extraordinary kinds of spaces, and from this fundamental truth springs a wealth of beliefs and corresponding ritual functions directed toward them.

In ancient Mesoamerica, caves were the most impressive enclosed spaces, in terms of size and complexity, experienced by the vast majority of people (at least, those who ever visited caves), since Mesoamerican architecture was not overly concerned with the creation of large interior spaces with public access. The imposition of conceptual order on cave space must have played a role in the proper conduct of ritual and probably was accomplished in a variety of prescribed and innovative ways. In this chapter, I will attempt to define some "ways of thought" that enabled the ritualist to establish order and determined the placement of offerings, as can be observed in several archaeologically attested situations. I am especially interested in the placement of offerings in extremely high and low positions within Maya caves and how these seemingly anomalous deposits can be viewed as a symbolic ordering of space. I will argue that spatial ordering was a tool of agency in the effort to achieve metaphysical balance and thereby assure a positive outcome for the ceremony.

Spatial Primacy in Mesoamerica

To approach this idea, it will be necessary to consider certain aspects of phenomenological classification which informed Pre-Hispanic thought and which endure as general operating principles and in specific content (though much of this has obviously changed) in many modern Mesoamerican communities, making them accessible in ethnographic writing. Hunt (1977:53) remarks on the astonishing complexity of classification systems in Mesoamerica, particularly how taxonomic levels are superimposed to form dense paradigms. Perhaps the best known of these is the association of cardinal directions and colors with certain gods, birds, trees, and so on. While the primacy of time as the principal axis of organization is often emphasized, especially for the Maya (see, e.g., León Portilla 1973), I am concerned with the role of space, which I believe is and was paramount in the constitution of symbolic structures and the imposition of order in a ritual setting.

Ancient Mesoamerican religion is characterized by the fact that positions in space and movement through space play an inordinately important role. This role is so complex that it defies general description and possibly could never be understood in all of its nuances. The best-known features of what might be termed Mesoamerican cognized spatial models are the static, structural components made durable in art and architecture, for instance, the well-known cosmic grid with its horizontal and vertical divisions, color-directional symbolism, and multiple layers. The importance of this and other spatial schema in Mesoamerican representational systems cannot be overstated. Pictorially, they are evident in the near-insistence on spatial frames to situate protagonists and events in explicit locations (something not found or found only rarely in other Pre-Columbian art traditions). Cognized spatial models frequently underlie the arrangement of buildings within architectural complexes or influence the form and iconography of individual buildings.[1] Of particular importance are four- and five-part divisions, reifying the structure of the universe (Coggins 1980). Quadripartition is manifest in the fourfold nature of such gods as Tlaloc and Tezcatlipoca, among the Aztecs, and the Chaaks among the Maya. Here, spatiality is intrinsic to the deity's persona. Quincunxial arrangements, alluding to the four directions plus the center, are found in some archaeological deposits, such as the five jade heads found in a Preclassic cache in Structure 6B at Cerros, Belize (Freidel and Schele 1988:555ff. and Fig. 7).

Even the emphasis placed on toponyms in Maya hieroglyphic writing (Stuart and Houston 1994) is symptomatic of a lococentric mind-set. Many toponyms are supernatural locations and fix protagonists within a mythical but exacting spatial framework. That framework's precision is evinced in the use of numbers in the names of supernatural locales, such as *na ho chan,* "first five sky," and

wak muyal, "six cloud." The numbers both imbue space with a numerological personality and position it with unerring precision in the cosmic grid.

The deeper meaning of this spatial exactitude in Mesoamerican religion and art is not easily grasped, since it is probably grounded in many realms of human experience and practice. Obviously, space is an intrinsic property of reality, as well as a basic ontological category, and one would be hard-pressed to communicate without some reference to it. Yet, the peculiar emphasis on spatial reference in Mesoamerican religion suggests that something more fundamental is at stake. It could be argued that space, particularly as it exists in the natural environment, is itself part of the continuum of the sacred which embraces everything in the world (Sandstrom 1991:Chap. 6). This means that the spatial environment partakes of the same divine essence as the gods. Indeed, the gods, with their linkage to particular environmental niches, such as caves, cenotes, mountains, and sky, and their cardinal multiplicity, are in some measure anthropomorphic extensions of sanctified space.

Such a belief in the inherent sanctity of space has implications for agency. The dynamic quality of space makes it a vehicle for achieving order and, more to the point, equilibrium. Creating order means putting things in their proper place. Because this idea flows from universal physical experience (actually moving things in space to create an orderly arrangement), it has universal application as a metaphor and is attested in our own expression, "to put someone in his or her place," meaning to make someone manageable and contrite who has been unruly—basically, creating order out of chaos. Using the metaphorical proposition that order is the manipulation of things in space (including, for our purposes, their directional alignment) (Lakoff and Johnson 1980), I would argue as a working hypothesis that creating spatial order had deep epistemological implications in Mesoamerican thought and may partly account for the intensity of spatial referencing described earlier.

Establishing spatial order is an underlying theme in Mesoamerican ritual, and detailed knowledge of how to do this is typically the domain of the ritual expert. One striking contemporary example can be found among the Tz'utuhil of Highland Guatemala (Carlsen and Prechtel 1994:97). In Santiago Atitlán the curer, or *aj k'un,* begins the ritual proceedings by addressing in prayer points in space around the community, including the twelve sacred mountains. They are conceived as occupying a series of concentric rings revolving around Santiago Atitlán. These locations are addressed in a precise order, beginning with a point on the outer circle, from which a circuit is made in a counterclockwise direction. The process is repeated, moving in one ring at a time until the curer arrives at the heart of this conceptual universe, Santiago Atitlán. The journey proceeds through a kind of circular grid, allowing the *aj k'un* to pay respect to the "entire world," conceived as topographic nodes in a schematically constructed

environment. In this case, both verbal acknowledgment and esoteric knowledge of the spatial structure is the key to opening up a path of communication to the spirits who will aid in the curing process.

Another illuminating contemporary account of spatial ordering and ritual in Mesoamerica is Hanks's description of the Yucatec Maya *saántiguar* ceremony. Hanks (1984:136) goes so far to say that "there is not a single type of ceremony performed by [Yucatec] shamans that does not embody the directional principle." This extends, for example, to the directions altars and offerings face, the direction of bodily movements, whether in processions or scattering gestures, and cosmic directions (both horizontal and vertical) associated with the spirits who are invoked. Spatial considerations permeate every aspect of the ceremony. The invocation of a series of spirits in the *saántiguar* ceremony follows a precise order based on their native residence in the cosmic structure: first the high ones are invoked, then the low ones. Furthermore, when a *h'men* invokes these spirits, they are "moved" in the sense of being "lowered" from heaven to the earth and are "set up" in the four corners. Indeed, the act of prayer, *reésar,* is virtually synonymous with the notion of moving spirits (Hanks 1990:304). Here, too, the ritual expert is an agent in creating a kind of situational spatial order for a given occasion, which is an index of the enduring order of the universe.

Hanks (1984:138) further elucidates the relationship between agency and location. In Yucatán, spirits have narrowly defined spheres of influence which may extend to particular regions; a god may preside only over the south, for instance. As mentioned earlier, spirits also occupy a precise cosmic location, such as a particular cardinal direction, level of heaven, or physiographic feature. Location is part of that god's essence. Thus, it is understandable when in Chan Kom, the *h'men* utters the name of a cenote to invoke a particular rain god (Redfield and Villa Rojas 1934:205). For Maya ritual specialists the capacity to effectuate change has a logical, systematic relationship with location. Put another way, location is a tool of agency. I would expand on this by saying that the spatial order created through the performance of ritual is more than a symbolic replication of an ideal cosmic order. Rather, it is motivated by the epistemological basis of causality and serves as a mechanism to influence the course of events. The ritual expert's imposition of spatial order, whether in speech, visual symbols, or bodily movements, is an instrument for effectuating change.

Cognized Spatial Models and Caves

This chapter takes the position that cognized spatial models, which empower religious specialists to impose order in ritual contexts, are relevant to the issue of cave artifacts and their location. First, it must be understood that the distri-

Figure 10.1. Late Classic polychrome tripod plate with the entire rim chipped off. This plate was found in isolation lying on a rock buried within the breakdown of the Chiquibul Chamber of Actun Kabal, Belize. Photograph by George Veni.

bution of cave artifacts is neither haphazard nor casual, even though the open arena of a cave may suggest otherwise. Most cave artifacts, like caches found in architectural contexts, were deposited in a deliberate manner with respect to their placement and condition, which sometimes have been dramatically altered (Figure 10.1). We must keep in mind, however, that preexisting conditions in caves, such as their potential for flooding, may have, in certain instances, influenced the ultimate choice of where ceremonial objects were deposited. In addition, postdepositional disturbance is always suspect. Yet, some caves are sufficiently remote to ensure that their archaeological contents have remained relatively intact since ancient times and dry enough to obviate the flooding issue. These caves can serve as laboratories for conducting spatial analyses that attempt to understand ritual behavior.

Yet, a review of the literature reveals how little has been written about the spatial patterning of artifacts in Maya caves. Some thought has been given to functional behavior and natural spatial divisions within a cave, for instance, differences between the entrance and the tunnel system, which coincide with daylight and dark-zone distinctions. Brady (1989:402) posits that artifact distribution in the dark, interior tunnel system of Naj Tunich reflects a preference for private, small-scale activity, seen in the selection of restricted spaces for ritual. The illuminated entrance, on the other hand, may have functioned for more

public kinds of large-scale activities. Like Brady, I have suggested that remote, hidden parts of caves were especially attractive for ritual activity as gauged by the presence of deeply sequestered cave art (Stone 1995:239). Brady (1989:415) also draws a distinction between wet versus dry areas of Naj Tunich, with the wet areas being special points of attraction for ritual activity. The importance the Maya placed on cave water for ritual usage, as well as for everyday consumption, has long been known (Thompson 1959:124–126).

What has been ignored is a functional-spatial analysis based on a more conceptual understanding of cave space rather than on the mere identification of function with the cave's natural morphology, such as the presence of alcoves or rooms, or its physiography, such as the presence of water. The rationale behind this type of analysis is that the rooms and alcoves exist; therefore, they were used because the space was available and perhaps fit requirements of remoteness or aesthetic attraction. However, that some kind of cognitive spatial framework was imposed on caves and that this had something to do with artifact deposition also seems likely in at least some instances. As a comparison, we can look to placement of artifacts in architectural contexts. These appear to be structured by a cognized spatial system, since buried objects are found in patterned locations, along a central axis, in the corners of buildings, and so forth. Burial crypts, like the one from Río Azul, where the walls are marked by directional glyphs and even the intercardinal points are marked (Adams and Robichaux 1992:Fig. 1), show clearly that the space of ceremonial architecture was mediated by conceptual spatial schema. I would assert that cave space was symbolically ordered in some fashion and that the artifacts left within were mediated by that order. Furthermore, caves present more extensive spaces than those used for caches and burials in architecture, making conceptual order even more necessary for effective functioning. We may also surmise that rituals performed in caves by specialists, who typically are the most knowledgeable about such things, were guided by conceptual spatial schema.

Approaching spatial issues in this way may not have been attractive to researchers in the past, since cave space does not seem to link in an obvious way with the cardinally oriented grid basic to Mesoamerican cognized spatial systems. I agree that determining actual directionality in the dark zone of a cave would have been impossible for the ancients, but I would also maintain that manipulation of relative spatial positions still allows for this kind of approach.

Ethnographic Cognized Spatial Models

Ethnographic cognized spatial models are not all cut from the same cloth and can express varying sets of terms related in a symbolic network that might be described as a system. Gossen (1974:Fig. 5) has discussed one such cognized

model for the Chamula Tzotzil that paradigmatically aligns time, the state of the universe, types of people, genres of discourse, and other phenomena with horizontal, planar space radiating out from center to periphery.[2] In his study of the Maya of western Yucatán, Hanks (1990:86–87) outlines a model which maps the human body onto the earth so that the body has different regions associated with different winds, just as the larger environment does; this is a kind of body-earth metaphor which has implications for perceptions of space (see also Monaghan 1995:98). Something analogous is described for the Atiteco Tz'utuhil, what Carlsen and Prechtel (1994:Fig. 4.1) call the "world as body." Here, the body is a microcosm of space and time and also the organizing principle of the dualities that constitute the wholeness of the universe; thus, the right and the left side of the body paradigmatically align with male and female, day and night, and so forth.

Different cognized spatial models can be held simultaneously in a given community without conflict, since they stem from the same basic precepts and generally express transformations of one another. For instance, Hanks (1990:305) also describes a more classic view of cosmic space as a vertically stratified orb with seven celestial layers, below which are the earth, water, and, at the lowest depth, fire. The direction up is paradigmatically superimposed with east and is the direction of the sun, with west, down, the direction of the moon (see Bricker 1983; Coggins 1980). Cognized spatial models showing different variations on the vertical and horizontal structure are described by a number of researchers working in Maya communities (among them, McGee 1990:61; Redfield and Villa Rojas 1934:205; Vogt 1970:3–4).

The more immediate issue of how these cognized models may have structured the spatial component of cave ritual in their respective communities is admittedly rarely addressed in the ethnographic literature. Alcorn (1984:200) mentions that, among certain Huastec groups, ritualists who visit caves and their offerings are positioned to face an abysslike drop. Alcoholic libations are poured at the four corners of the abyss as well as on the offering. Acknowledgment of the four corners of the abyss links cave space with the cosmic grid.

Of greater interest is the dynamic use of cave space in terms of movement through it during the course of a ritual. Evidence suggests that some forms of Mesoamerican cave ritual involve a sequence of stops on a predetermined circuit.[3] Among the K'iche', who make pilgrimages to caves manually excavated in volcanic ash at the archaeological site of Utatlan (Brady 1991; Brady and Veni 1992), rituals proceed along prescribed routes punctuated by stopping points where prayers are recited and incense and candles are burned. As reported by Tedlock (1983) and Earle (in Stone 1995:128), these stopping points generally are at the entrance, the beginning and end of passages, and passage junctures. Anyone who has visited the Utatlan caves, including me, has seen debris from modern ceremonies accumulated at these points. This arrangement of stopping

points seems to define the boundaries of the cave in its extremes and at the center.

The question arises as to whether these ritual circuits in caves are Pre-Hispanic or derive from practices associated with behavior in a Catholic church, where the petitioners cross themselves and genuflect at the entrance, walk to the altar and do the same, and then perhaps proceed to a side altar for another prayer; or the kinds of processions associated with Catholic ceremonies, such as the Stations of the Cross. Carlos Navarrete (personal communication, 1998) has seen a performance of the Stations of the Cross in a cave in a remote part of the Cuchumatan Mountains.

If the cave processions are strictly Catholic in origin, they cannot be used as evidence in reconstructing the Pre-Hispanic context. However, before anything decisive can be said, more information of an ethnographic and archaeological nature should be gathered. Most likely, we are dealing with a cultural phenomenon, namely, making prescribed movements with sequential stopping points as part of a ritual event carried out in a landscape that has Pre-Columbian roots but that has blended with Catholic practices. One look at Landa's description of the complex processional circuits made during the Yucatec New Year ceremony or Sahagún's descriptions of certain Aztec ceremonies, which include a series of ordered movements in the landscape (Aveni 1991), confirms Pre-Columbian precedents for this idea (also see Reese-Taylor 2002). García-Zambrano (1994) provides additional early colonial evidence from Central Mexico for ritual processions in the landscape following Pre-Columbian spatial principles, such as cardinal orientation and the incorporation of sacred topographic features. Processional activity within caves structured by conceptual spatial schema seems likely to have been a Pre-Columbian practice.

Knab furnishes an ethnographic account that is especially illuminating regarding movement within caves and cognized spatial models (1991). Although his study concerns Nahua speakers from the Sierra de Puebla (1991:40), he describes a spatial system that emerges out of pan-Mesoamerican ideas and is, therefore, relevant to the issue of Maya caves. Knab's material concerns healer-diviners, their apprentices, and their use of dreams for curing, all of which involve journeys through caves. However, the only activity occurring in physical cave space is in entrances, where healer-diviners go to pray; the rest of the cave journey is of a metaphysical nature. Certain caves in the region are seen as entrances of a particular character—some associated with winds, others with the realm of the dead, and so on—but they all lead to an underworld landscape called Talocan (a Nahuat pronunciation of the Nahuatl word *Tlalocan*) whose space was highly structured and where the healer's *tonal,* or life force, needed to journey to cure disease.

The *tonal*'s excursions must proceed in an orderly way for it not to perish in

battles with Underworld foes. The *tonal* first must visit the four sides of Talocan, which provide a means of emergency escape, before visiting the center, or Talocan Melaw, where the great gods live (Knab 1991:40). The sides and center are what Knab calls "determinate places" marking the boundary structure of the Underworld. Indeterminate places are spatially nebulous and generally comprise topographic and geological structures: mountains, rivers, plains, as well as unique cave features, such as *atet* (literally, "water-stone," a Nahuat term for calcitic formations), wind places, and the heart of the mountain (Knab 1991:47). Indeterminate places have associated numbers, such as the fourteen rivers; these numbers, recited in prayer, provide another means of classifying space (e.g., some numbers are good, some are associated with heaven).

Knab's study reveals that the healer-diviner's detailed knowledge of spatial order, that is, how to move through Talocan, is an instrument of power. The path of his movement, based on stops at prescribed locations, influences the spirit world and the success of his venture. We are reminded of the Yucatec situation described by Hanks (1984) in which the *h'men*'s ordering of space entails a precise sequence of deity invocation, with the deities "lowered" from the sky into cardinal positions; this process essentially collapses a vertical hierarchy of spirits onto a horizontal plane. Again, the skill of spatial manipulation makes the ritual expert an effective agent.

Knab's study also provides particularly interesting fodder for speculation about the role of cognized models of space in caves. He suggests a spatial structure of boundaries, sides, and a center and a conceptual topography with numbered points of reference, features that do not depend on cardinality per se. These ideas recall an unusual painting in the cave of Tixkuytun in Yucatán (Barrera Rubio and Peraza Lope 1999:Fig. 6; for a color plate, see Stone 1995: Pl. 4). The painting shows a *k'an* cross with bar and dot numbers (Figure 10.2). One wonders if this enigmatic image might be mapping out a cognized spatial model related to the cave, with numbered places in the corners and at the edges. That the painting is on the ceiling, in line with the horizontal plane of the cave, makes this idea even more intriguing.

Another cognized model with spatial implications for caves is the so-called hot-cold system of classification, found in a number of present-day indigenous Mesoamerican communities. The hot-cold system appears to have its roots in both Europe and the New World. Neuenswander and Souder (1977:97) have suggested that a hot-cold, wet-dry Hippocratic system introduced by the Spanish was so compatible with a Pre-Hispanic system of classification that the two readily fused. Certainly, the hot-cold system as reported in the literature evinces paradigmatic categories consonant with Pre-Hispanic beliefs, such as linking the moon with water (Greenberg 1984:172).

The hot-cold system is grounded in the concept of an ordered and balanced

universe as a prerequisite for a healthy life. Order manifests itself in the balance of opposing forces and is essential as much for the human body as for the macrocosm. A normal, healthy body must be in a state of equilibrium with respect to elements of hot and cold; restoring equilibrium is one of the primary roles of a religious specialist. Knab (1991:34), for instance, notes that human life depends on equilibrium among the three soul forces of the body, and the healer must restore this when it is out of kilter. Similarly, Sandstrom (1991:313) states that among contemporary Nahua the source of misfortune is the disruption of harmony in the universe and that all rituals seek to restore equilibrium in the spirit world.

In the hot-cold system, heat ultimately derives from the sun. The category "hot" is associated with anything heated by the sun; things that are high, such as mountains; fire; daytime; liquor; masculinity; strength; aggression; power; sexual activity; social engagement of all sorts, including holding political office; and the colors red and yellow (Neuenswander and Souder 1977:107). Needless to say, caves fall into the cold category. This puts them in a paradigmatic relationship with things that are wet, cool, dark, low, weak, and feminine, as well as with water, the moon, nighttime, and the color white (Greenberg 1984:177; Neuenswander and Souder 1977:107). A balance of these classificatory binarisms is seen in the Mixtec mountain-cave symbol, where the mountain is high and dry and the cave is low and wet; thus, the vertical opposition depicted in the symbol is in a paradigmatic relationship with the opposition between wet and dry (Figure 10.3).

The high-low dyad is a productive classifying principle in the hot-cold system. Hanks (1984:134) states that for at least one Yucatec ritual expert in his study area, hot and cold were explicitly fused onto a system of high and low,

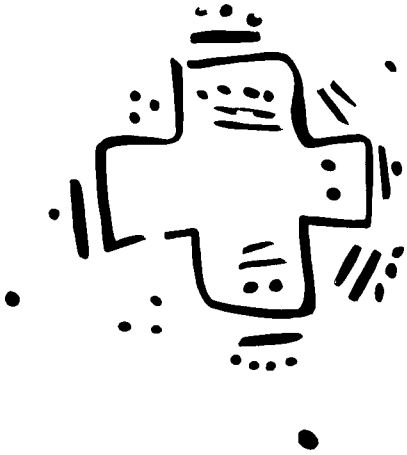

Figure 10.2. Red painting in the cave Tixkuytun, Yucatán. The painting is on the ceiling with no obvious orientation. Bar and dot numerals mark the edges and corners of a *k'an* cross. Drawn by the author.

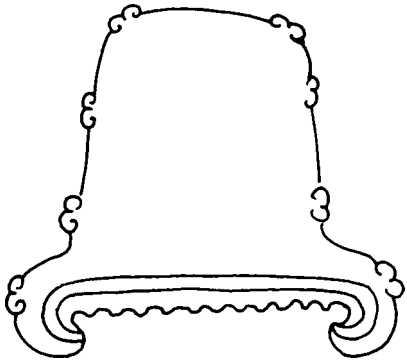

Figure 10.3. Mountain-cave symbol from the Codex Zouche-Nuttall. The mountain is high and dry and the cave is low and wet, in accord with the hot-cold system of classification. After Stone (1995:Fig. 3-17).

with high relating to heat and the sun and low to cold and the earth. High implies order and temporal priority and is inherently good, while low, in the sense of below the earth, the realm of caves, implies chaos, ambiguity, and, at the extreme, evil.

Greenberg's (1984) study of Mam curing practices and the hot-cold system sheds further light on the high-low opposition set. She describes how Mam ritual entails movement through different categories of space to achieve balance, as "shamans need to marshal the power of both [meaning high-hot and low-cold places] to restore balance in the cosmic order" (1984:107). Ritual for the Mam typically involves the healer-diviner moving on a processional route from cold, low places, such as by a river, through liminal doorways, to high places, such as a mountaintop shrine (1984:182). Passing through contrasting spatial categories in this structured manner can be viewed as a living enactment of the Mam's symbolic transformation of the landscape (Tilley 1999:179). Given their analogical associations, caves could certainly constitute a low place in this topographic balancing act.

High and Low in Cave Artifact Distribution

The spatial implications of the hot-cold system are interesting for thinking about possible cognized spatial models imposed on caves and resultant patterns of artifact distribution. In the hot-cold system, high and low are classificatory oppositions. The hot-cold system also views high and low as a vehicle for achieving equilibrium. Vertical opposition is especially important in ethnographic accounts of curing ceremonies where restoring balance addresses the source of illness. Curing ceremonies may have been an important function of cave rituals in ancient times, as they are today, though this function is not easily detected archaeologically. Nevertheless, the placement of artifacts in extremely high and

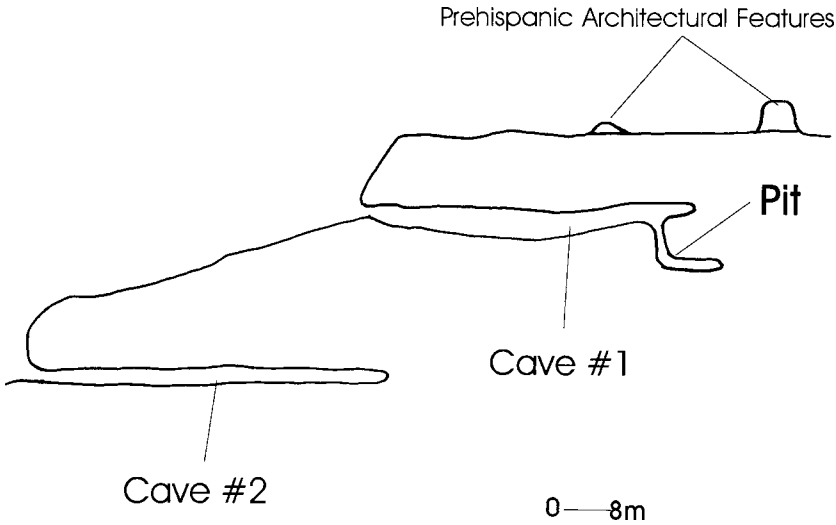

Figure 10.4. Cross section of a hill at Utatlan, Guatemala, with two manually excavated caves. Cave 1 has an excavated pit with tunnel extension used for rituals. Redrawn from Brady and Veni (1992:Fig. 7).

low positions is a striking feature of artifact distribution in caves. These heights and depths are sometimes so extreme that the model of "readily available space" does not satisfactorily explain them. One can reasonably surmise that extreme vertical positions in caves, whether in deep pits, on high shelves, or in ceiling-level rooms, figured into the performance of rituals in which objects were left behind.

As a type of ritual action aimed at restoring cosmic equilibrium, the high-low classificatory opposition may have been implemented in a cave by moving through extreme positions on a vertical grid. Caves that exhibit high-low patterns in the spatial distribution of activity areas could be explained by this model. One case in point is the aforementioned manually excavated Utatlan caves, all three of which have or had a ceremonial function. This is especially obvious in the largest cave, Cave 1, which extends under the main plaza of the archaeological site (Figure 10.4). The dating of these caves is problematic, though they certainly postdate the standing architecture, that is post–AD 1400 (Brady and Veni 1992:157). Toward the back of the 68-meter tunnel of Cave 1 is a 7.2-meter pit with a passage extending for 8.8 meters at the bottom (Brady and Veni 1992:160). Since the cave was manually excavated, the pit offers concrete evidence that vertical movement in the cave was important. At the same time, horizontal movement in ritual circuits is accommodated by manually excavated side passages.

Today the pit is used as a ritual chamber. I saw on the bottom an old metal can which had served as a makeshift censer and other debris left behind from a ceremony. It would be instructive to ask some K'iche' who use this pit—and the cave is still used as a sacred site—about its significance. Thus far, no one has ascertained this information. But, certainly, going into the depths, relative to the level of the main passage, holds significance for the present-day K'iche'.

Farther back in time, Naj Tunich offers several examples of what appear to be a high-low contrast in artifact distribution. One is found in the entrance chamber of Naj Tunich, on the so-called Balcony at the rear of the entrance hall (Stone 1995:Fig. 5-9). On a flat shelf seven meters up on top of a column, James Brady (personal communication, 1998) found a small collection of obsidian and pottery sherds. Originally, there were substantial quantities of sherds; however, most had been brought down by modern visitors. The effort to put objects at that height, which required support, such as a ladder, to reach the shelf, indicates great motivation for some important purpose. I would suggest that someone sought a high place, not to hide the sherds, which would make little sense, since they have no intrinsic value, but because of an attempt to perform a balancing act of high and low space in a ritual context.

A section of Naj Tunich discovered in 1988 during an expedition I organized illustrates a dramatic high-low contrast. At the back of the main tunnel a ceiling-level passage, which we call K'u Multun, was found to contain a rough stone altar and an extensive hieroglyphic inscription on the adjacent wall (Stone 1995:Figs. 5-45–5-46). K'u Multun represents a high position, about ten meters above the Main Tunnel (Figure 10.5). At the back of K'u Multun is a drop that descends to the level of the Main Tunnel, although it leads to an entirely different section, called Naj Tunel (Stone 1995:Fig. 5-2). Here we found a stalagmite with a short inscription (Stone 1995:Figs. 5-40–5-41).[4]

There is an obvious parallel between the stone altar in K'u Multun, which is wide at the base and topped by a vertical stone, and the stalagmite with inscription, which is also wide at the base and tapers to a point. The style of writing of the stalagmite text is similar to that of the long inscription on the wall of K'u Multun. In other words, it seems possible that the ritual that entailed painting the K'u Multun inscription and constructing the altar was part of a sequence of acts performed by the same people, who descended the shaft to Naj Tunel and painted the stalagmite. If this is the case, then the two events have a marked contrast in vertical elevation in terms of an individual's perception of moving through the cave: an ascent to K'u Multun and a descent to Naj Tunel. This can be explained, according to the proposed model, as deliberate movement through high and low space to enact symbolic order, which, as I have argued, was a feature of rituals seeking metaphysical equilibrium.

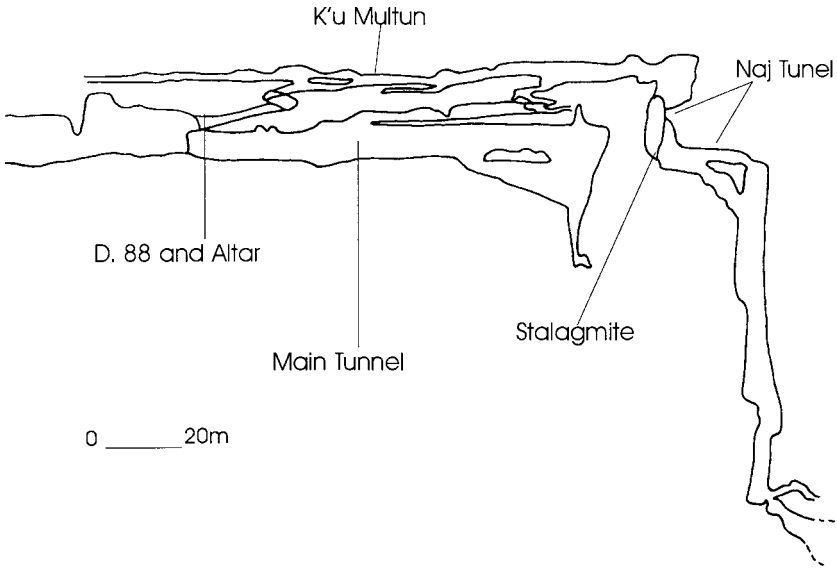

Figure 10.5. Cross section of the north end of Naj Tunich, Guatemala, shows the complex arrangement of high and low spaces. D. 88 and its accompanying altar sit above the Main Tunnel at the opening of a ceiling-level maze passage called K'u Multun. The painted stalagmite is accessed down a shaft at the other end of the maze. After Stone (1995:Fig. 5-2).

A contrast between high and low is also striking in one entrance of Actun Kabal in the Chiquibul region of central Belize. From the floor of the cave, one hikes up on a precipitous ridge about 25 meters (Figure 10.6) to an area called the Ledge of Offerings, a sloping floor dense with artifacts (see McNatt 1996:87, for a description). At the back of the Ledge of Offerings is a 10-meter-high wall with footholds which the Maya climbed and continued to ascend in a narrow passage that wends its way up. We found ollas collecting drip water at various levels in this remote upper passage (Stone 1995:Fig. 2-5). The sense of height here, particularly climbing up to the Ledge of Offerings, is impressive and must have had some bearing on the significance of the space. The sense of height is also tangible in the altar chamber of Hokeb Ha, which is elevated over the cave's ground-level entrance. Palacio (1977:6) believes that the Classic Maya entered the altar chamber (where the famous Hokeb Ha Vase was found) from an opening overlooking a sheer 4-meter drop and used a ladder or tree vine for the ascent. Actun Polbilche, Belize, has a high chamber, Alcove I, that was the main precinct of ritual activity and lies 4.5 meters above the level of the cave floor (Pendergast 1974).

Figure 10.6. Partway up a steep trail leading to the Ledge of Offerings in Aktun Kabal, Belize. The dark area at the bottom is the route to the lower river passage. The Ledge of Offerings is positioned at an extremely high level relative to the cave floor. See figures at center for scale. Photograph by George Veni.

Conclusions

In conclusion, ancient Mesoamerican religion and ritual are notable for their spatial specificity and complexity, with concomitant expressions in art and architecture. The vertical dimension was as important as the horizontal in symbolically mapping the universe. As Kubler (1985:246) observes, differentiation by height was "an urgent requirement" of the ancient Mesoamerican architect. There can be no doubt that the architect's keen interest in vertical discrimination, while guided by aesthetic and design choices, was fundamentally an expression of the cosmic spatial grid that was an ordering principle of Mesoamerican religion.

The multifaceted spatial focus of Mesoamerican religion, ritual, and art, I believe, stems from principles of ordering, expressed through utterances, gestures, and material objects and intended to act on the spirit world in the hope of affecting the human world. The urge to order may also have a basis in a perception of the external world as the meeting ground for human-supernatural interaction, rather than an emphasis on the individual mind as the locus of interaction, as we find in many Western and Eastern religions. Ordering the space of the external world was an instrument for grappling with outside forces. Knowledge of spatio-conceptual systems was a tool of agency for certain trained individuals. All of this is pertinent to caves, as they are instrumental spaces in this quest to influence the spirit world and deal with disease, drought, and other threats.

Unfortunately, the cognitive models which I have discussed and believe motivated the placement of cave artifacts are extremely difficult to verify from archaeological evidence alone. The exposed condition of artifacts in caves, the variability of cave space as arenas of order, and the likelihood of individual innovation in the imposition of order makes such verifications even more formidable. But it is worthwhile to consider these ideas and test them against future discoveries. Enough evidence of cave artifacts left in extremely high and low positions has already come to light to establish the presence of a pattern of spatio-ritual behavior and to dismiss the notion that these are anomalous placements.

The application of this spatial model to field archaeology has several implications. First, the model demands routine investigation of potential areas of extreme vertical placements of artifacts. This may entail technical climbs or the construction of bush ladders many meters long. Nevertheless, if this model is correct, artifacts will be discovered that may have been overlooked.

Second, artifacts found in extreme locations will have to be given greater consideration. In the past, isolated finds have often gone unreported, and many are known only through firsthand experience or anecdotal information.

Third, archaeologists should be attentive to positional contrasts of related de-

posits. For instance, parts of the same vessel may be sequestered in two locations which are dramatically different on a vertical grid.

Finally, to give full consideration to these issues, more imaginative and thorough ways of analyzing the spatial distribution of artifacts will have to be sought. Archaeological data recording should attempt to incorporate vertical as well as horizontal strategies and become more three-dimensional in its presentation.

Notes

1. See Kowalski (1999) for relevant architectural examples and, especially, Kowalski and Dunning's analysis (1999) of the Nunnery Quadrangle of Uxmal.

2. Gossen (1999:xix) has criticized his early structuralist writings with their emphasis on neatly configured symbolic systems. Yet, he maintains, "I remain convinced that structural homologies exist that bind together on the ritual stage certain experiential and classificatory truths about diverse aspects of the Chamula social universe."

3. To supplement the few published case studies which document formalized movements through caves, I have had conversations with such cave investigators as Carlos Navarrete and John Greer, who have observed these kinds of ritual practices but have not published their findings.

4. Based on the reading of the inscription as "deer god," I propose that the ancient Maya viewed the stalagmite as a deer-related spirit (Stone Forthcoming).

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CHAPTER 11

Cluster Concentrations, Boundary Markers, and Ritual Pathways: A GIS Analysis of Artifact Cluster Patterns at Actun Tunichil Muknal, Belize

HOLLEY MOYES

This chapter analyzes the spatial patterning of artifact deposition in the Main Chamber of Actun Tunichil Muknal, an ancient Maya ritual cave located in western Belize. The aim of my research is to demonstrate that by taking a cognitive-processual approach, an intensive study of a single site can increase our knowledge of cave ritual and aid in our understanding of ancient Maya spatial cognition within caves. This new approach (Renfrew and Bahn 1991:431–434; Renfrew and Zubrow 1994:xiii) draws on cognitive, mathematical, and computer sciences in an attempt to develop techniques that can be used with archaeological data. Underlying the method is the premise that the archaeological record was produced by the human mind and was therefore patterned by mental processes.

The artifact record clearly demonstrates that caves have been intensely utilized throughout Mesoamerica from the Preclassic Period to the ethnographic present. All available archaeological, ethnographic, and ethnohistorical evidence suggests that in the Maya Lowlands, caves were used exclusively for ritual purposes (Brady 1989). Cross-culturally, dark zones of caves are useless even for temporary habitation except in extreme circumstances (Farrand 1985:23) and are used almost exclusively as ritual spaces (Faulkner 1988; Hole and Heizer 1965:47). According to Chard (1975:171), most "caves" used for refuge were actually rockshelters. Particularly in tropical areas, caves are dank and often infested with bats and insects, which carry a number of deadly diseases, including histoplasmosis, rabies, and Chagas. In his survey of caves in the Maya Lowlands, Brady (1989:5–6) concludes that "habitation within the dark zone is practically inconceivable."

The ritual context is advantageous to the archaeologist, since it provides an interpretive paradigm to be used in cave studies. Another advantage is that the formal and repetitive characteristics of ritual behavior facilitate its study in the

artifact record. As Rappaport (1979:176) observes, ritual is repetitive and must be performed in prescribed ways. Although Turner (1982:81) argues for an organic and improvisational aspect of ritual behavior, he proposes that the looser elements operate only within the framework of the formal structure. Vogt (1965) provides ethnographic evidence for the existence of such a framework in the Maya area. He describes a phenomenon in the Tzotzil Maya village of Zinacantan that he terms "replication": patterned aspects of ritual behavior observed in a variety of contexts, settings, and scales. Therefore, we may expect that artifact deposition in ritual contexts will not be haphazard and that some spatial patterns will reflect repetitive behaviors.

In his article on the structure of archaeological data, Aldenderfer (1987:95) describes archaeological "signatures" and defines them as "unambiguous indicators of a behavioral process." Ball (1993:180) adds that signatures are behavioral units created by humans whose patterns correlate with group activities that are represented archaeologically as patterned associations between artifacts and their contexts. Ritual behavior is likely to leave signatures due to these formal and repetitive characteristics and should produce identifiable spatial patterns. As Marcus and Flannery (1994:56) have observed, "artefacts used in ritual should exhibit a pattern of use and discard which is non-random and yields insights into the nature of the ritual itself."

Stone (1997; Chapter 10 here) has suggested that cave ritual may be studied by examining the spatial patterning of artifacts within caves and comparing them with spatial models reported by ethnographers and ethnohistorians. Analogical arguments that link the ethnographic present to the archaeological past may be established using the Direct Historical Approach (Marcus and Flannery 1994; Wedel 1938). Despite objections to this method from Kubler (1973), in Mesoamerica cultural continuity allows for particularly strong analogical arguments. In this case, the success of the argument is largely dependent on (1) the degree to which it relates to a specific question; (2) the pervasiveness of the ethnographic analog over time and space; and (3) the rate of the analog's known occurrence. A commonly occurring referential analog is more likely to be correct partially because of probability. Additionally, if distinct recognizable patterns or specific elements of the referential analog can be sufficiently isolated, a strong inference may be made when those patterns or traits are identified in the archaeological record.

This study employs a Geographical information system (GIS) to help identify spatial patterns of artifact deposition in the Main Chamber of Actun Tunichil Muknal. Patterns are interpreted using strong ethnographic and ethnohistorical analogies that are pervasive over time and space. The research demonstrates that applying technology to intrasite analyses can enhance our understanding of ritual practice in caves.

The Setting

The Western Belize Regional Cave Project (WBRCP), under the direction of Dr. Jaime Awe, has conducted field research at the cave of Actun Tunichil Muknal since 1996. The Main Chamber of the site was the area chosen for analysis because of its secluded location, which left it undisturbed by looters, and because it was the area most intensively and extensively utilized by the ancient Maya (Moyes and Awe 1998, 1999a, 1999b).

A GIS was created for the chamber to facilitate the evaluation of artifact depositional patterning on a global scale. The advantage of a GIS is that it provides an easily manipulated database, a means of visual display, and a tool for the analysis of spatially referenced data. The display capabilities allowed the entire Main Chamber to be viewed on a single map, facilitating global assessments of artifact placement and distribution.

Actun Tunichil Muknal (ATM) is located in the Cayo district of Belize on a tributary of the Roaring Creek River (Figure 11.1). It was discovered in 1986 by geomorphologist Thomas Miller (Awe et al. 1997; Miller 1989, 1990), who produced a map of the cave system (Figure 11.2). The system is composed of a five-kilometer tunnel along which the ancient Maya used several loci. The Main Chamber, located in a high-level passage that splits off from the main tunnel system five hundred meters from the cave entrance, is the most remote area of utilization in the system (Moyes and Awe 1998, 1999a, 1999b). The east-facing entrance to the tunnel system is through a keyhole-shaped archway approximately eight meters high that towers over a blue green pool (Figure 11.3).

The chamber measures approximately 183 meters in length, 35 meters at its widest point, and 5 meters at its narrowest. The area encompasses 4,450 square meters. It is oriented on an east/west axis that is entered through a squeeze in the easternmost section of the chamber. The ceramics from the Main Chamber were classified using the type-variety system and cross-dated with James Gifford's (1976) Barton Ramie collection. They date to AD 830–950, the Terminal Classic Spanish Lookout phase (Jaime Awe, personal communication, 1997; Moyes 2001).

The chamber is composed of a number of rooms and passageways partitioned by large areas of breakdown, stalagmitic columns, and large, isolated boulders. Based on these configurations, the Main Chamber was divided into the following smaller areas: (1) the Creek; (2) Boot Hill; (3) the Passage; (4) the Burial Chamber; (5) the Ransom Chamber; (6) the Cathedral; (7) the Angel's Room; (8) the West Wall; and(9) the Crystal Sepulcher (Figure 11.4). Some of these areas were named by previous cavers, and none of the names are intended to reflect Maya thought or traditions.

Much of the floor of the Main Chamber consists of a series of rimstone (or

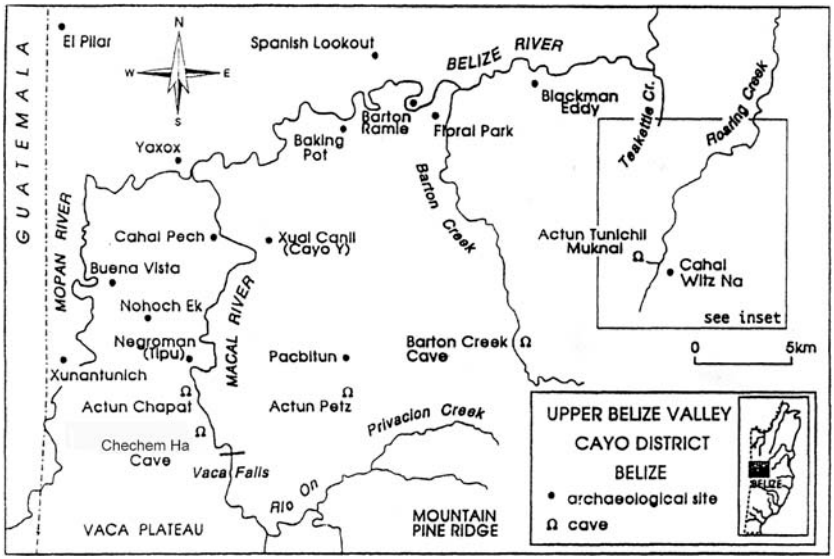
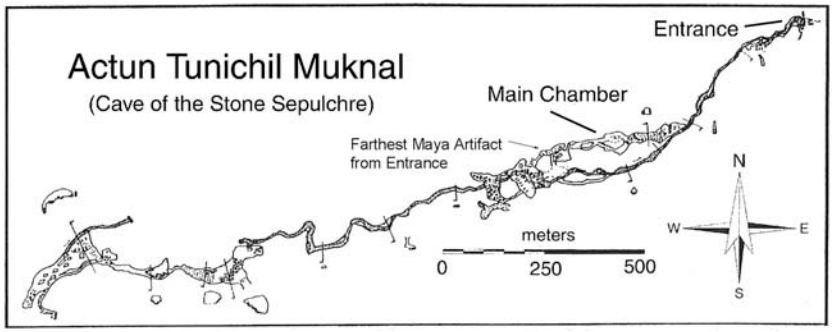


Figure 11.1. Actun Tunichil Muknal, located in the El Cayo district of Belize on a tributary of the Roaring Creek River. Map courtesy WBRCP.

Figure 11.2. Tunnel system of Actun Tunichil Muknal. After Miller (1989, 1990); map courtesy WBRCP.



travertine) dams. The dams create a honeycomb of gour pools that cover the central portion of the floor area and descend gradually toward the eastern entrance (Moyes 2001; Moyes and Awe 1998, 1999a, 1999b). Initial speculation was that the chamber had been dry for quite some time. However, in July of 1997, torrential rain caused the chamber to fill with water. Natural drainage began almost immediately, but some standing pools persisted for three weeks. It is likely that the chamber has been wet on and off since ancient times, which would account for the thick calcite buildup.

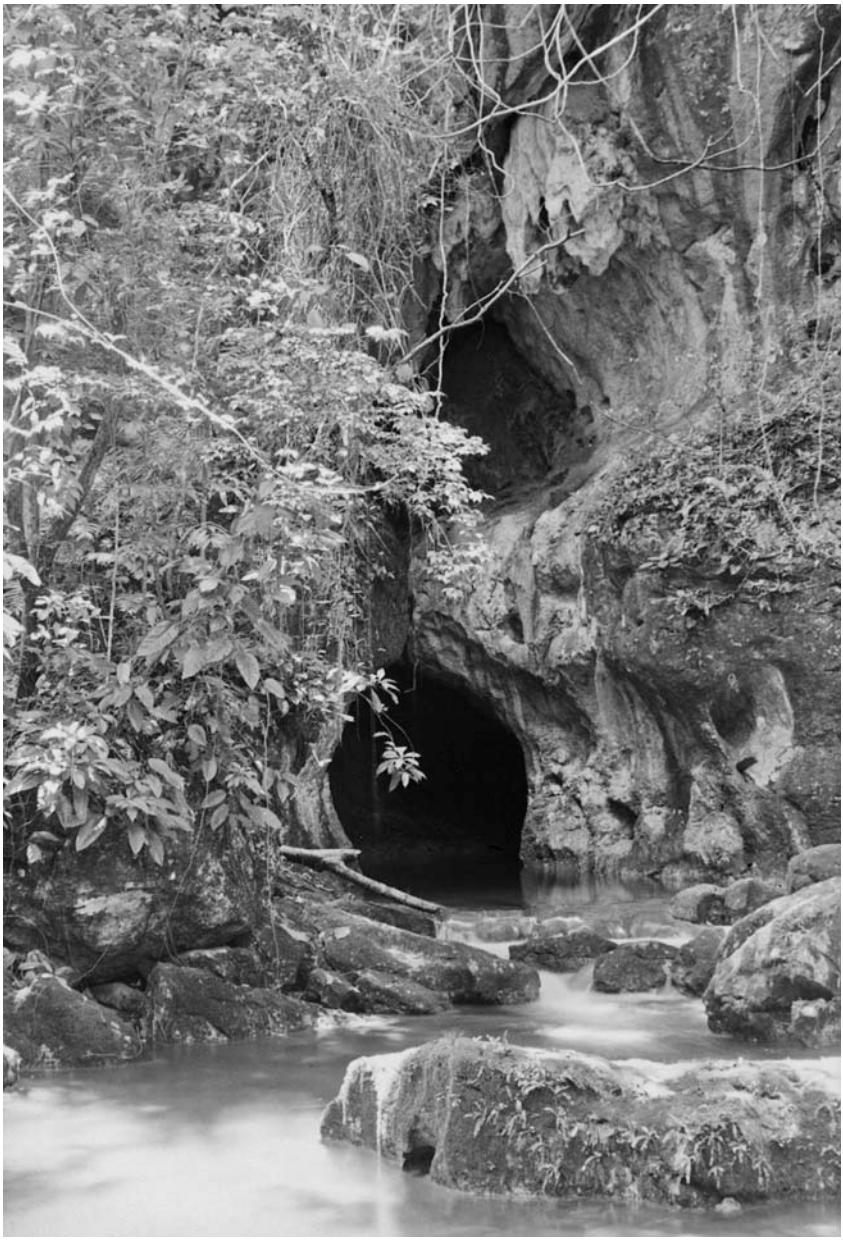


Figure 11.3. Keyhole-shaped entrance of Actun Tunichil Muknal. Photo by the author.

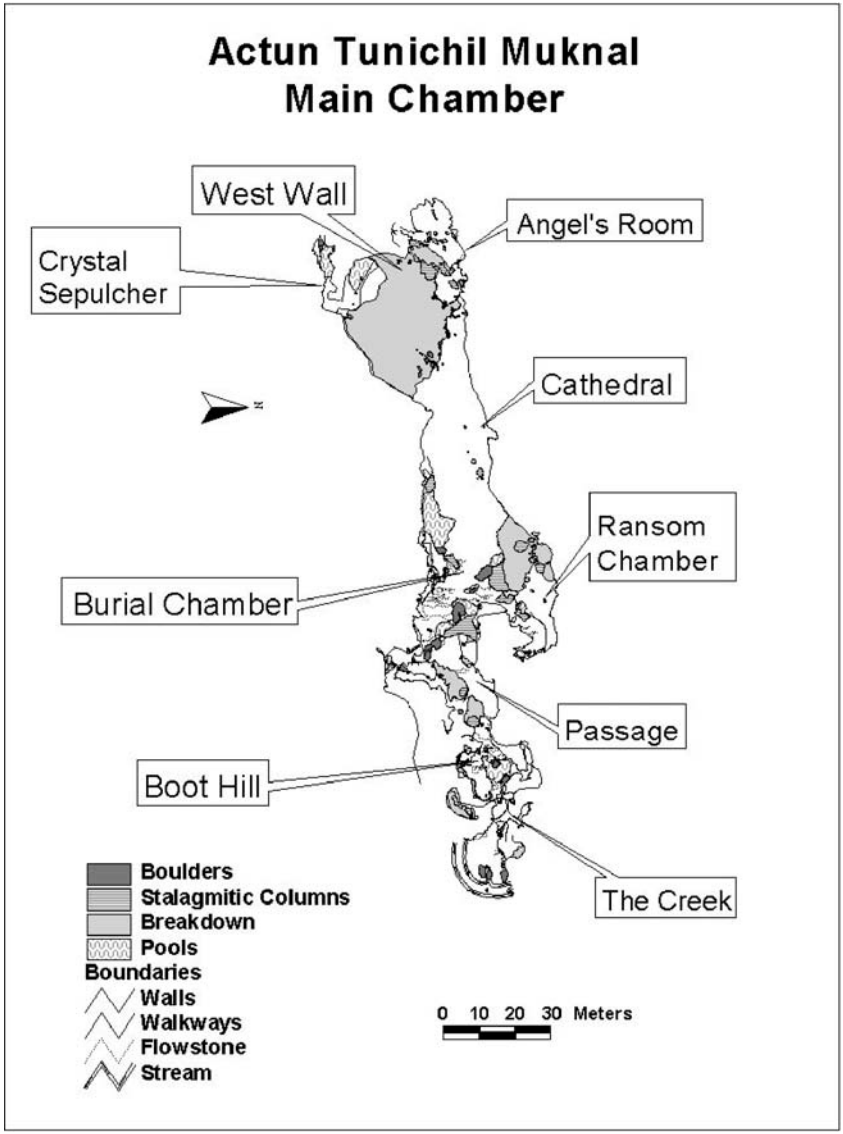


Figure 11.4. GIS map of the Main Chamber of Actun Tunichil Muknal illustrating area divisions within the chamber.

A major concern in the analysis was that artifacts could have been displaced by water turbation. The expectation was that, if water movement had occurred, objects would have collected upslope of large features such as boulders or stalagmitic columns that were capable of impeding water flow. In viewing the distribution of artifacts located around these features an even artifact distribution

was observed on the upslope and downslope sides, which would preclude water movement of artifacts.

Although over 99 percent of the artifacts in the chamber were broken, this could not be attributed to water movement. In ritual contexts, ceramic vessels were commonly smashed during ceremonies, and water turbation could not account for their condition. Additionally, ceramic sherds did not exhibit evidence of water erosion, such as smoothed edges.

In some areas, artifacts located on top of rimstone dams were situated in an upright position and had been lightly cemented to the floor by calcite. This indicates that, from the time of deposition, water rarely flowed over the dams and, even when this occurred, it was insufficient to cause artifact displacement, much less, breakage. The combined evidence indicates that water movement was not a major factor in artifact deposition within the chamber.

Methodology

Paper maps were produced using tape and compass and were drawn on a scale of 1:60 using a two-dimensional top-plan view. A total of 1,408 artifact fragments were piece-plotted on one-meter grid squares, which were then entered onto the base map. The GIS was created from the base map using ESRI software. Maps were digitized using ArcInfo and imported into ArcView 3.1 for analysis and display.

Artifact breakage presented a problem in the quantification of the data because from one to thirty fragments could represent a single artifact. While in the field, "in situ" refitting was undertaken by searching the immediate area for like fragments. Only ceramic sherds ten centimeters or greater in length were counted. With few exceptions, these fragments were located within one to two meters of each other. Based on in situ reconstruction, the 1,408 fragments could be reduced to a minimum number of 718 discrete objects. The majority of the assemblage consisted of ceramic sherds and speleothems. Speleothems are defined as "any secondary mineral deposit that is formed by water" (Gary et al. 1972:679); however, in this case, the artifact category is limited to stalactites and stalagmites.

Using the minimum number, ceramics accounted for the majority of the assemblage (77 percent); followed by speleothems (16 percent); animal remains (4 percent); groundstone objects such as *manos, metates,* and celts (2 percent); chipped stone such as obsidian and crystal (1 percent); slate (0.7 percent); and a stelalike monument. Nine percent of the assemblage was so encrusted in calcite that these artifacts were impossible to identify positively.

Although this method aided in the quantification of artifacts, artifact points did not provide adequate information for evaluating spatial distributions. First

of all, it is unclear whether the ancient Maya considered a fragment of an object to be an offering. This information would greatly influence the way spatial data from sacred contexts could be handled. Since researchers have not addressed this issue, a different way of looking at the data was developed. The alternative method does not rely on specific data points as a unit of analysis, but on the spatial distributions of clusters of points.

Creating a Cluster Coverage Using GIS

An examination of the artifact distribution revealed that, in many cases, artifacts were deposited in small groups that could provide a unit of measurement independent of the number of artifact fragments in the cluster. Because like fragments from discrete artifacts tended to be in close spatial proximity to one another, they could be encompassed within a single cluster. However, identification of clusters posed some problems. Although some artifact clusters, such as those placed in niches (Figure 11.5), were well bounded and easy to identify, others were not. Difficulties arose when evaluating artifact scatters in open spaces, where clustering was more difficult to define. To address this issue, a k-means cluster analysis was conducted to aid in the identification of optimal cluster configurations.

The program is a pure locational analysis developed by Kintigh and Ammerman (1982). It was applied in this context to determine whether specific artifact classes could be placed into a set of groups based on their pure spatial location. These groups, should they exhibit robust patterning, could then be related to specific morphological features in the cave. In this research context, this approach is superior to point-pattern methods such as nearest-neighbor analysis. Point-pattern methods are generally concerned with the evaluation of the degree to which the individual members of a single artifact class have a tendency to be distributed randomly across a space, homogeneously, or clumped together with reference only to members of that class (Bailey and Gatrell 1995:75). While these methods are powerful, they assume that the spatial relationship of the members of that single class of artifacts vis-à-vis one another is intrinsically more important than the degree of spatial proximity of those artifacts to members of a different artifact class.

In contrast, pure locational clustering is not specifically concerned with a single artifact class, but instead with the degree to which members of different artifact classes are found in close spatial proximity. The content of these clusters can then be evaluated to gain insight into past behaviors. This approach has the advantage of not weighting a priori any specific artifact class. Instead, the method seeks to define "natural" groupings of objects across a space. While it is

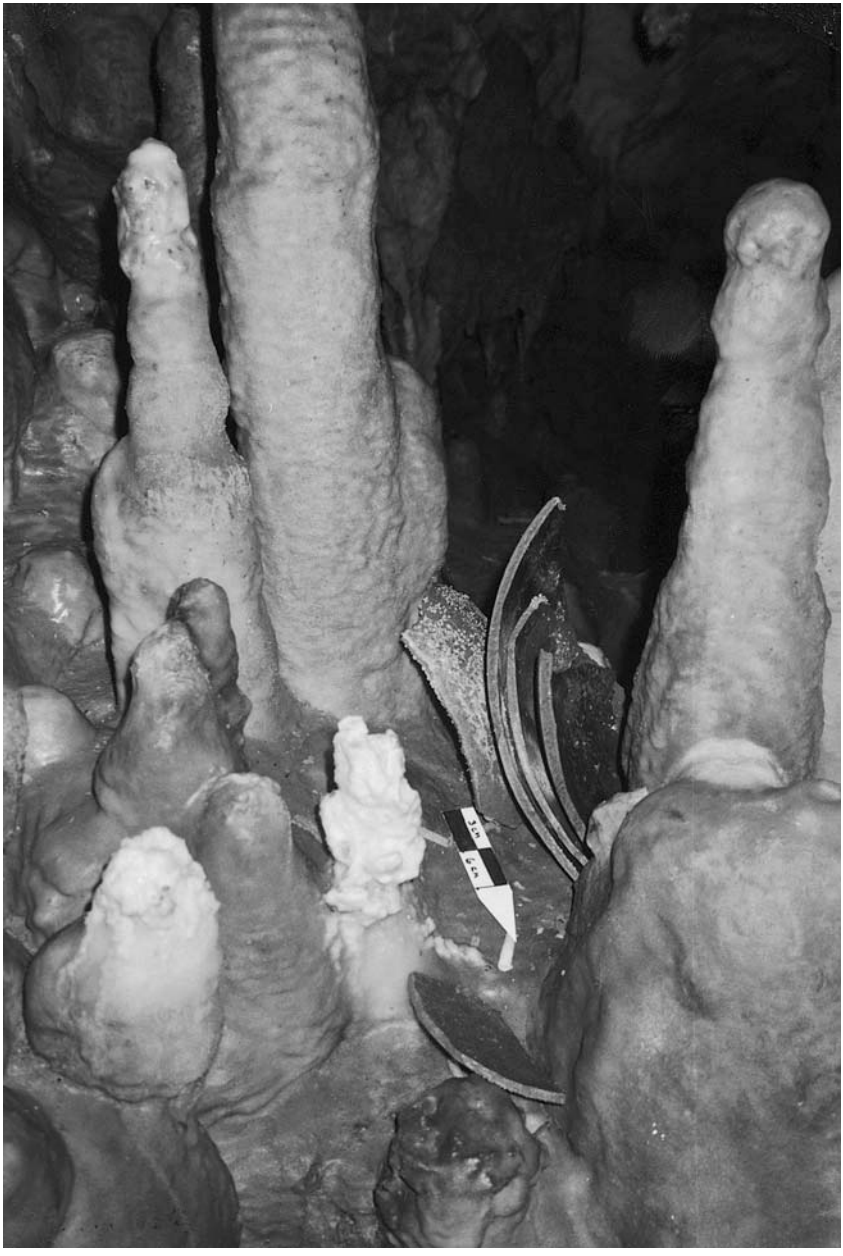


Figure 11.5. Ceramic sherds stacked and cached in a group of stalagmites. Photo by the author.

necessary to acknowledge that these methods often impose a structure on a data set, experimental studies have shown that k-means clustering generally provides excellent recovery of known data structure, especially when patterning is strong within the data (Aldenderfer and Blashfield 1984:48–49).

The number of clusters to be generated by the k-means program is determined by the user. The k-means algorithm allocates each point to one of a specified number of clusters and attempts to minimize the global goodness-of-fit measures by using the SSE (sum squared error), which is the distance from each point to the centroid of the cluster. Some programs allow the operator to view plot files of the SSE data in order to determine the number of clusters that produced the best goodness-of-fit configuration, but these programs can handle only small data sets. In order to handle the large Actun Tunichil Muknal data set, it was necessary to run the program in SPSS. Unfortunately, SPSS does not generate SSE plots, and although SSEs were numerically generated, they were produced by using a linear function, which was ill suited for the ATM spatial data.

A new method using GIS functions was developed in order to determine the ideal number of clusters to be requested for the k-means analysis. Although one option was to estimate the number based on perusal of the data, this was rejected for two reasons: first, it would have introduced bias into the data and defeated the purpose of numerical clustering; second, not all of the points were well clustered, and decisions on the number of clusters present in these areas would have been difficult, if not arbitrary. Instead, the aid of another computer program, LDEN (local density analysis) was enlisted.

Local density analysis, proposed by Johnson (1976, 1977), is a global measure designed to compute densities of artifact classes within a fixed radius of each point. Using the *x,y* spatial coordinates from the 1,408 artifact fragments generated by the GIS program, an LDEN was conducted on the data. The LDEN was iterated in 0.25-meter increments beginning at zero and increasing to 3 meters. The program was directed to produce a plot file of the results. The plot file demonstrated that the highest local density coefficients of the spatial data occurred at the 0.25-meter radii.

Using ArcView, a 0.25-meter buffer was produced surrounding each of the 1,408 artifact points, and overlapping buffers were dissolved by the program, which resulted in 252 polygons. The k-means analysis was then initiated using the spatial data (*x,y* coordinates) from the 1,408 artifact fragments and directed to generate 252 clusters.

Before importing the data into ArcView for further analysis, this number was tested for goodness of fit. To do this, the cluster number designation of 252 was tested against higher- and lower-numbered configurations by examining the coefficient of variation (CV) of *x,y* point coordinates within randomly selected

clusters from each set. The CV is defined as the ratio of the standard deviation to the mean:

$$CV = \frac{s}{X}$$

It is used to compare variables with unequal means by comparing the relative variability of a frequency distribution. Relatively less dispersed variables have lower coefficients of variation.

To test the CV, k-means cluster configurations were generated for eight variables, including the 252-cluster configuration. The numbers chosen were 240, 250, 251, 252, 253, 254, 255, and 264. Seven numbered clusters from each configuration generated by the k-means were chosen at random for analysis. They were cluster numbers: 9, 23, 44, 78, 158, 175, and 176. The CVs for the *x,y* point coordinates for each cluster configuration were added and compared. The results of this test showed that cluster configuration 252 had the lowest combined CV (.026554), demonstrating less dispersal in the variables and producing the best goodness of fit.

Using the 252 k-means cluster configuration, a cluster-attribute table was produced in ArcView. Each of the 1,408 artifacts was assigned a cluster number between 1 and 252. Numbers were highlighted and graphic polygons were created using artifact points as nodes. Clusters contained between 1 and 30 components.

The graphic was converted to a shapefile and imported into ArcInfo. Topology for the new cluster coverage was built and reintroduced into ArcView. The advantage of building the coverage from artifacts generated by the k-means as opposed to clusters generated by the GIS program was that the k-means polygons were smaller and possessed their own unique irregular shapes, which increased the accuracy of spatially driven analyses.

Cluster Concentrations, Linear Scatters, and Boundary Markers

In viewing the artifact clusters there were three identifiable patterns of artifact deposition: (1) concentrated clusters; (2) linear distributions; and (3) isolated clusters located in peripheral areas (Figure 11.6). Cluster concentrations occurred in the eastern and middle sections of the Main Chamber in the areas of the Burial Chamber and Boot Hill. Closely spaced clusters suggested intense usage in these areas. The Burial Chamber was the area of highest concentration as evidenced not only by the number of clusters but also by the most variation in artifact classes (Moyes 2001; Moyes and Awe 1998).

Linear distributions were defined as multiple clusters of artifacts that fol-

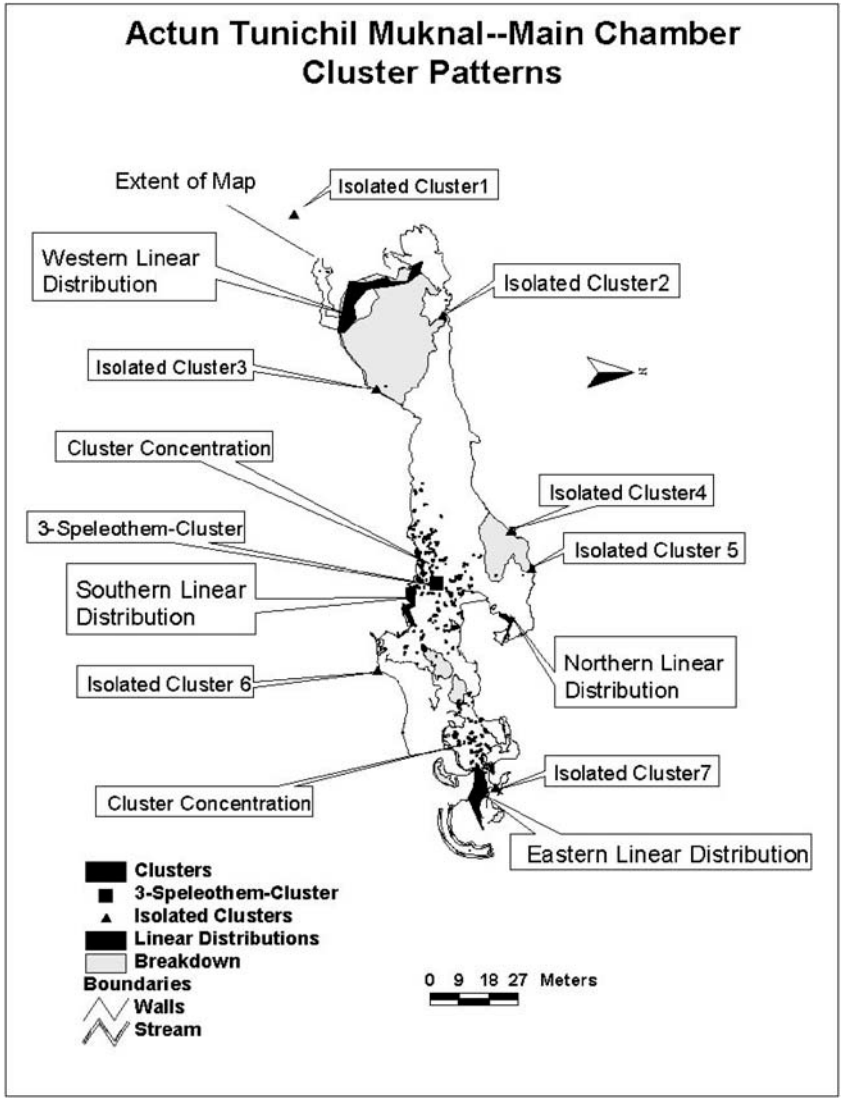


Figure 11.6. Cluster concentrations, linear distributions, and isolated clusters located in peripheral areas of the Main Chamber of Actun Tunichil Muknal. The 3-speleothem-cluster is located in the chamber's center.

lowed the outline of walls or walkways (Moyes and Awe 1999a, 1999b). Four linear distributions are located in the Main Chamber, each associated with one of the cardinal directions (see Figure 11.6). The first is the eastern pathway. It commences just above the tunnel stream and follows the only negotiable path leading to the entrance of the Boot Hill area. Artifacts located along this route consist of jar sherds, dish sherds, *metate* fragments, speleothems, and an obsidian blade found inside a smashed jar. Charcoal was found on the floor of the route and inside jar sherds.

The next two linear distributions are located in the middle section of the Main Chamber. The northern pathway commences just inside the entrance to the Ransom Chamber and runs along the south wall of the northernmost area of the Main Chamber. The artifact scatter consists of jar sherds and speleothems, and at the terminus of the scatter is a human skeleton.

The southern distribution runs along the southernmost wall of the Burial Chamber. The route runs between a group of large boulders that creates a partition between the Burial Chamber and the Passage. It leads to the remains of three individuals as well as a dense artifact distribution in the center of the chamber. Charcoal is found scattered along the wall, and the artifact assemblage consists of a speleothem, an animal bone, and, primarily, jar sherds.

The final and most explicit example is the western linear distribution. The artifact distribution runs along the westernmost wall of the cave over a large area of breakdown. Located at both termini are human remains; an additional skeleton was found in the area of breakdown near the route's center. Carbon scatters and ash lenses are most abundant approaching the area of the Crystal Sepulcher. Artifacts found along the route consist of jar sherds and broken speleothems as well as special finds, including a smashed shoe-shaped vessel, a carved speleothem bead, a large bowl, and a dish. The artifact distribution across the breakdown delineates the easiest and, indeed, the only passage across the conglomeration of roof fall that separates the Angel's Room from the West Wall areas (Moyes 2001; Moyes and Awe 1999a, 1999b).

Isolated clusters—the third category of patterning—are located in peripheral areas such as along the outermost walls of the Main Chamber or at the termini of crawl spaces or alcoves. Seven clusters of this type were identified (Figure 11.7). Each cluster consists of a single artifact. Of these, three are smashed and four are almost intact.

The group of artifacts located farthest from the cave entrance provides the most dramatic example of an isolated cluster (see Figure 11.2). A small subsidiary tunnel accessed through the Crystal Sepulcher originates at the west end of the Main Chamber and eventually rejoins the river. This tunnel is almost devoid of artifacts, except for a small cluster of speleothems and the sherds of three jars. Isolated cluster 1 (I1 on Figure 11.7), located at the terminus where the passage

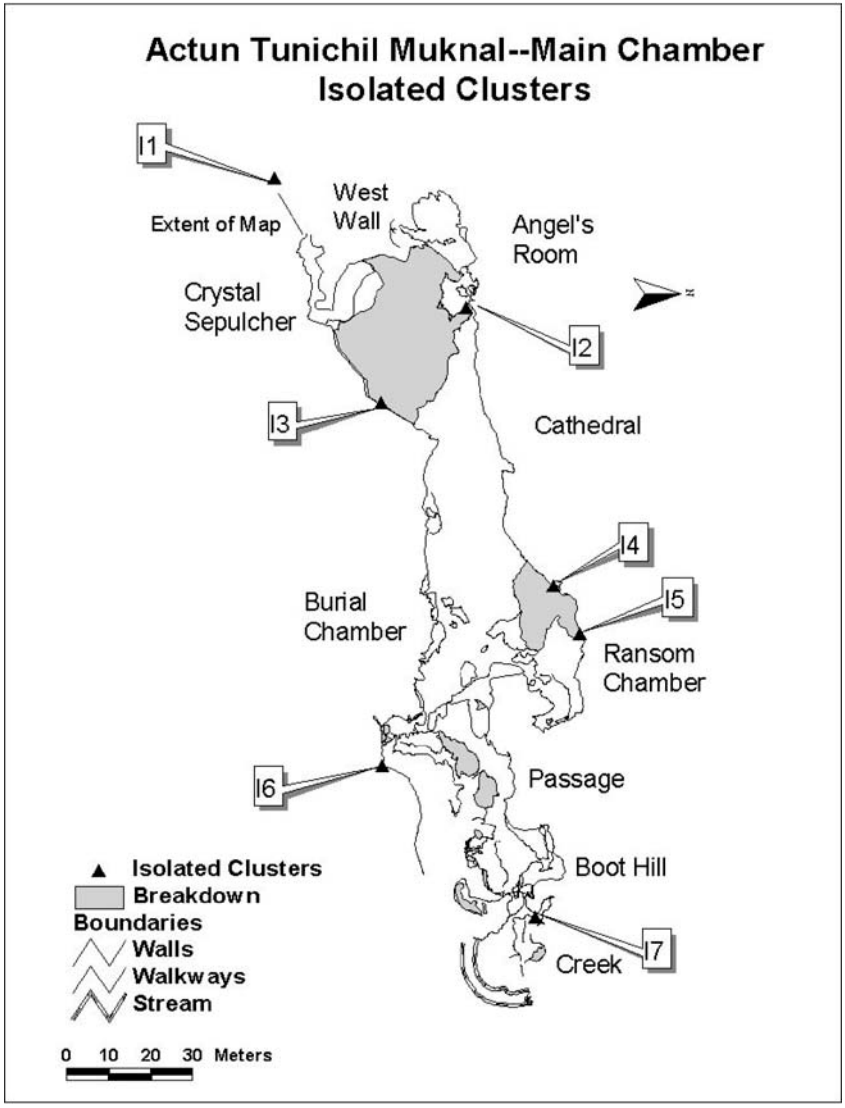


Figure 11.7. Isolated clusters in the Main Chamber of Actun Tunichil Muknal.

rejoins the main tunnel system, is a single jar sherd containing a charcoal placed on a clay mound (Michael Mirro, 1998, personal communication).

Isolated cluster 2 (I2) is located in the northwest part of the Main Chamber in a small room adjacent to the Angel's Room. It is a *metate* that is largely intact and placed within a group of stalagmites (Figure 11.8). The third isolated

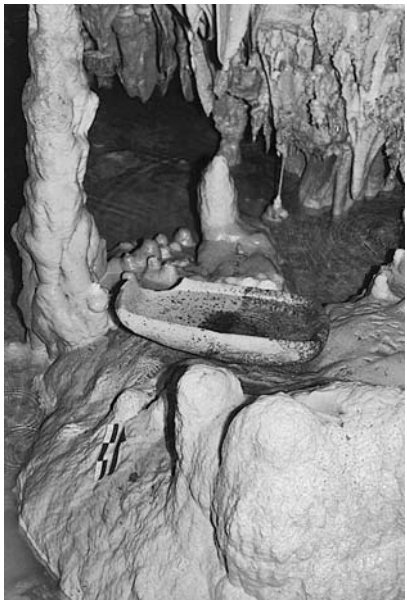


Figure 11.8. Isolated cluster I2, a *metate* placed within a group of stalagmites. Photo by the author.

Figure 11.9. Isolated cluster I4, an intact shoe-shaped vessel placed within a group of stalagmites. Photo by the author.

cluster (I3) is found in the area of breakdown that separates the Cathedral area from the West Wall. It is located high above the floor of the Main Chamber and consists of approximately three-quarters of an unslipped jar smashed into three fragments. The sherds contain a scatter of charcoal and ash.

In an area of breakdown east of the Cathedral, located approximately six meters above the Main Chamber floor, is isolated cluster 4 (I4). The artifact is a single, intact shoe-shaped vessel placed within a group of stalagmites (Figure 11.9). Isolated cluster 5 (I5), a hollow bone tube, is located in a flat sandy area 13.5 meters east of I4, near the northernmost wall of the cave. The tube was fashioned from an animal long bone and is 8.1 centimeters long and 1.5 centimeters in diameter. One end is smoothed and the other is fractured.

Isolated cluster 6 (I6) is located in the Boot Hill area along the southernmost wall of the cave. The artifact is a red-slipped bowl situated on a shelf high above the floor of the chamber near the cave ceiling. The last example is I7, located in the area of the Creek. Placed against the cave wall at the entrance to a small alcove is half of a wide-necked, unslipped jar.

Although some isolated clusters were located in areas of high elevation, others were not. This pattern of deposition seems to indicate that the remote position

of these artifacts near the outermost areas of the cave is the key factor in their placement. The placement of artifacts at a high elevation is coincidental with the cave walls' upward curve along the periphery. The pattern of these peripherally placed artifacts does not suggest that intense activity occurred in these areas.

Models of Ritual Space and Artifact Patterning

The Quincuncial Model

Years ago, Eliade recognized that, cross-culturally, the world is perceived as having a center or navel from which extend four horizons projected in the four cardinal directions. He referred to this square constructed from a central point as an "imago mundi" (Eliade 1959:42–45). According to Eliade (1959:45), this paradigmatic cosmological model becomes "the archetype of every creative human gesture, whatever its plane of reference may be." Encountering this spatial model over time and space throughout Mesoamerica should not be surprising. Evidence for its presence among the Pre-Columbian Maya can be found in the Codex Madrid, in the layout of tombs at Río Azul (Adams and Robichaux 1992:412), and in site construction typified by the twin pyramid complexes at Tikal (Ashmore 1991:201).

Ethnographers report that the earth is thought of as a four-sided, horizontal flat plane that sits beneath the overarching dome of the sky (Gossen 1974:34; Holland 1963; Redfield and Villa Rojas 1962:114; Sosa 1985:417–423; Vogt 1976:13). In one of the most well recognized models, Gossen (1974:34) illustrates that the sun was thought to move in a vertical circular pattern around the flat earth plane. The sun's rising and setting on summer and winter solstices delineated the four corners of the plane, and its zenith and nadir marked the center of the square-earth model.

Much of our ethnographic knowledge of Maya spatial cognition also comes from the work of Hanks (1984, 1990) and Sosa (1985), who both worked among the Maya in Yucatán. They recognized that the directional principle was the cognitive spatial model at the heart of ceremonies performed by shamans and note that among the contemporary Maya, the quincuncial model is the basic spatial model used in ritual.

Hanks (1990:299–302) dichotomizes the sacred and the profane use of directionality by differentiating between cardinal "directions" and cardinal "places." Cardinal directions constitute "an abstract coordinate system, presumably fixed by features of the natural environment (terrestrial and celestial), relative to which any actor can orient himself or any other object"; cardinal places serve to define

a schematic totality of spatial zones. Cardinal places used in ritual discourse may be thought of as representing "miniuniverses." They are conceptualized as a central point surrounded by a four-sided polygonal structure whose sides are created by joining the four intercardinal points.

This concept, described as a "frame" by Douglas (1966:63–64), divides reality, both temporally and spatially, between that which is within the frame and that which is outside it. In Hanks's model, the frame represents a totalized space conforming to any scale, from a household altar to a milpa to a community to the entire cosmos. Although the earth itself is described in terms of the frame, in practical usage, a frame can also represent a "minicosmos" at a smaller scale. Therefore, the frame may be nested within progressively larger social spaces in the way that a Chinese box may open into another and another.

Hanks's work is instrumental in providing an understanding of the purpose of the frame. Through shamanic discourse that invokes the cardinal directions, spirits are brought down from their celestial realm in a procedure referred to as "binding the altar" (Hanks 1990:336–337). At the culmination of a ceremony, they are sent back to their spiritual abode, and the altar is said to be "untied." Sosa (1985:470–471) notes that the "tying," or binding, of ritual space is modeled after the Maya understanding of the cosmological order and references the sun delimiting the boundaries of the cosmos in its daily circuit around the earth.

Hanks points out that binding of the altar is best thought of as creating a secure place. He explains that the "altar is secured in the sense that spirits are bound to absolute locations around it, at once protecting the shaman from attack by any marauding spirits in the area and also preventing the lowered spirits themselves from wandering around" (1990:337). Even fully beneficent spirits can cause damage when loosed, and the protective procedure creates a zone of spiritual safety so that powerful beings may be manipulated. Hanks (1990:349) summarily states: "Without its perimeter, a place has no unity and is potentially dangerous. The frame may have the same protective quality when operating on a larger spatial scale at the community level. Barbara Tedlock (1992:82) reports that at Los Cipréses in Highland Guatemala the priest-shaman makes a four-part pilgrimage to the mountains surrounding the town. This ritual circuit is referred to as either the "sewing and the planting" or the "stabilization" of the community. The latter is a metaphor for the firm placing of a table on its four legs so that it will not wobble or tip over in times of natural or other disasters.

At the village of Chan Kom in Yucatán, during the *loḥ* (meaning "redeem" or "free"), a curing ceremony, the participants traverse a ritual circuit to each of the four entrances of the village and at each point bury crosses, obsidian, and salt in the road in order to prevent evil winds. Afterward, they proceed to the cenote to throw in thirteen wooden crosses so that "the winds [will] not come out of it again" (Redfield and Villa Rojas 1962:176). Sosa (1985:343, 344, 451,

452) describes the similar *loh kàah* ritual in the town of Yalcoba, but adds that it is a nighttime ceremony to propitiate the cave-dwelling deity Yum Baláam, who protects the populace from evil winds that cause disease. This guardian possesses four aspects that correspond to the corners of a quadrilateral structure. During curing ceremonies, one *h'men* (priest-shaman) walks a ritual circuit encompassing the community and leaves offerings at the corners while another remains at the centrally located church.

Hanks (1990:345) reports that in the "fixed earth" ceremony, a household rite designed to drive away a malignant spirit, the yard is spatially bound, or "locked in," by traversing its perimeter and "putting in" guardian spirits by showing them their "boundary stones." A similar pattern of perimeter definition occurs in ceremonies for the laying out of a milpa. The perimeter is always cut first, prayers for protection from snakes proffered, and, finally, offerings left at the four cardinal points and the center (Hanks 1990:362–364).

Awe and I (Moyes and Awe 1999a, 1999b) have suggested that the four linear scatters established inside of the Main Chamber are analogous to ritual pathways described by ethnographers. Viewed collectively, the pathways correspond quite literally to the four cardinal directions (see Figure 11.6). However, for this to correlate with the Maya frame representing the layout of the cosmos, a central feature is required. Using GIS to view the chamber, the centrally located artifacts were examined. In the center of the Burial Chamber was a stack of three modified speleothems. I have argued elsewhere (Moyes 2000, 2001) that the 3-speleothem-cluster completes the fifth central element of the quincuncial frame by representing the 3-Stone-Hearth or axis mundi (see Figure 11.6).

Freidel et al. (1993:68–93) suggest that hearths often represent the central feature in Maya cosmograms, particularly the 3-Stone-Hearth associated with the 4 Ahau 8 Kumk'u creation event of 3114 BC. Taube (1998:427–432) draws an analogy between Maya household architecture, in which the hearth is the central feature, and the architectural configuration of temple structures as "god houses." As with Maya houses, four posts support the roof of temples, and the center is the 3-Stone-Hearth, which represents both a place of creation and axis mundi connecting the sky, the earth, and the Underworld.

This analogy may be extended to caves, since they are thought of as houses of deities, particularly rain gods (Guiteras-Holmes 1961:153, 281; Holland 1963:93; Nash 1970:141; Reina 1966:181–182; Thompson 1970:267–268; Toor 1947:473), and ancestral spirits (La Farge 1947:127–128; Nash 1970:19, 45; Thompson 1970:314, 316; Vogt 1970:6). Stone (1995:35–36) argues, using linguistic evidence, that caves are thought to be houselike structures. This agrees well with Las Casas, who noted centuries ago that the Maya word for "temple" was also used for "cave" (cited in Thompson 1959:122).

The 3-speleothem-cluster located in the Main Chamber is notable because

of its odd configuration of deposition. There is a high degree of confidence that the stones are in their original context because they have been firmly cemented to the floor with calcite. The three speleothems are stacked together with two on the bottom of the stack and the third on top. Taube (1998:433) notes this specific arrangement in epigraphic representations of the 3-Stone-Hearth (Figure 11.10). Of the 116 speleothems deposited in the Main Chamber, this is the only instance of this particular configuration. Additionally, the clustered speleothems were modified from their natural cone shapes to a more rounded appearance, closely resembling hearthstones.

Taube (1998:431–440) has identified iconographic elements that accompany 3-Stone-Hearth imagery: centrality, jaguars, fire, and water. Each of these elements is present in association with the 3-speleothem-cluster. First, the cluster is absolutely central not only to the Burial Chamber, where it is located, but, on a larger spatial scale, to the Main Chamber itself. Besides this element of centrality, the element of jaguars is also present. A small-scale detail map of the immediate area illustrates the provenience of two jaguar bones—a pelvis and a metatarsal—found in a cache located within five meters of the three-speleothem cluster (Figure 11.11).

Evidence of burning in the 3-Stone-Hearth symbolism would be expected as well. Although large areas of charcoal scatters are present along the walls of the Burial Chamber, any carbonized material located among the rimstone dams at the center would have floated away or been covered by flowstone. There is, however, some evidence of previous burning, since the speleothem on the top of the stack exhibits charring (see Figure 11.10).

The element of water is represented by the wet nature of the chamber itself, as evidenced by the intermittent pools formed by the rimstone dams covering the floor. Additionally, the three "hearthstones" were constructed from speleothems. Lexical evidence suggests that the Maya were cognizant, at least empirically, of the process of speleothem formation in which water was converted into stone. The Yucatec word for speleothem is *xix ha tunich,* or "drip-water stone" (Barrera Vásquez 1980:946).

In his summary of Maya cave use, Thompson (1959:124–127, in Mercer 1975:xv–xxii) suggests that, among the Maya, jars found in caves were meant for the collection of *zuhuy ha,* or "virgin water," to be used in rituals. In a personal communication (2000), Barbara Tedlock suggests that the correct spelling is *suhuy,* which translates as "pure," as opposed to "virgin." Barrera Vásquez (1980:741) defines *suhuy haa'* in Yucatec as water springing from a hole. According to Tedlock, in practice, this becomes water that is caught, such as rainwater or dew, or that comes from a spring. Water from the center of the source is particularly desirable for ritual purposes, since water from the banks or edges of the source is considered to be polluted. One of her informants, while collecting

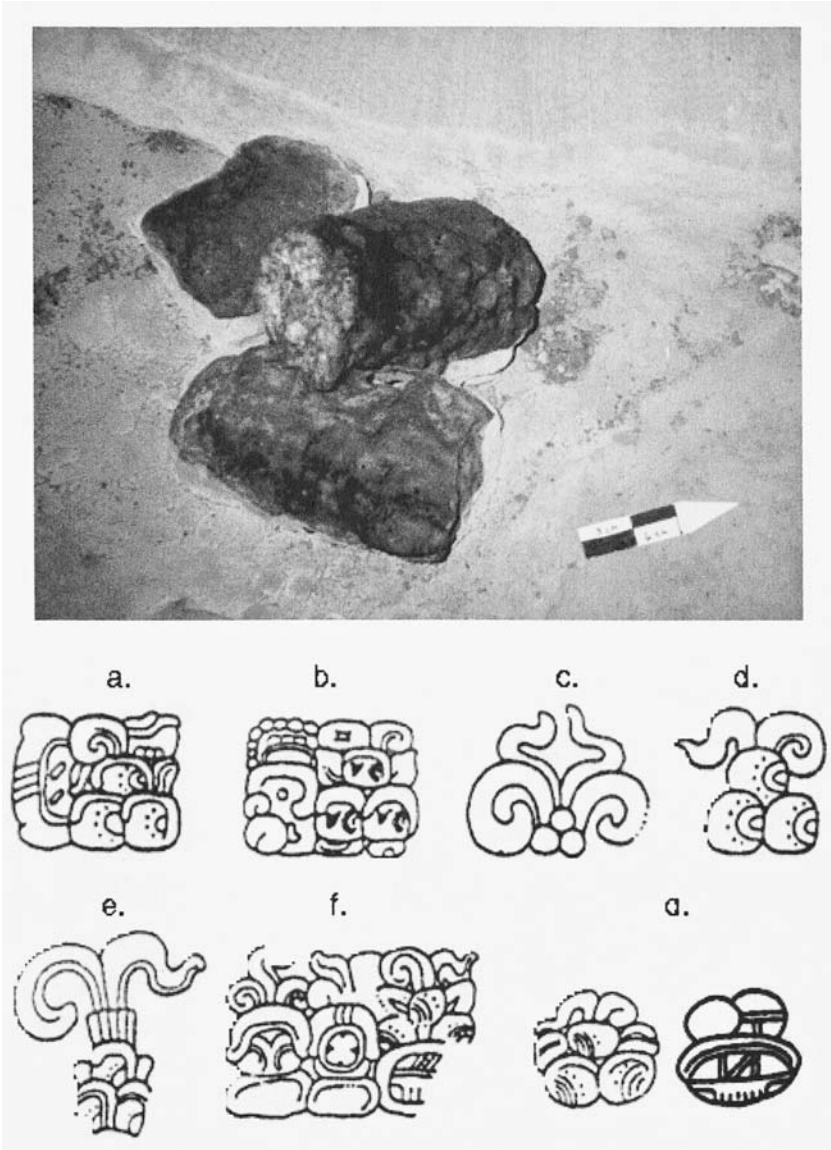


Figure 11.10. *Top:* The 3-speleothem-cluster located in the Burial Chamber of the Main Chamber of Actun Tunichil Muknal. *Bottom:* Epigraphic depictions of the 3-Stone-Hearth assembled by Taube (1998:433): (a) the green hearthstone place, Quirigua Stela; (b) the Seibal emblem glyph, Tablet 4 of Hieroglyphic Stairway, Seibal; (c) three smoking hearthstones, Monument 74, Tonina; (d) one of a series of smoking hearthstones on headdress of ruler, detail of recently excavated stela, Tonina; (e) three stones with burning wood, Naranjo Stela 30; (f) smoking sky hearthstones with glyphs for Tikal Paddlers, Stela 16, Copan; (g) smoking hearthstones with sky *ahau* glyph, Stela 1, Salinas de los Nueve Cerros. After Taube (1998:433).

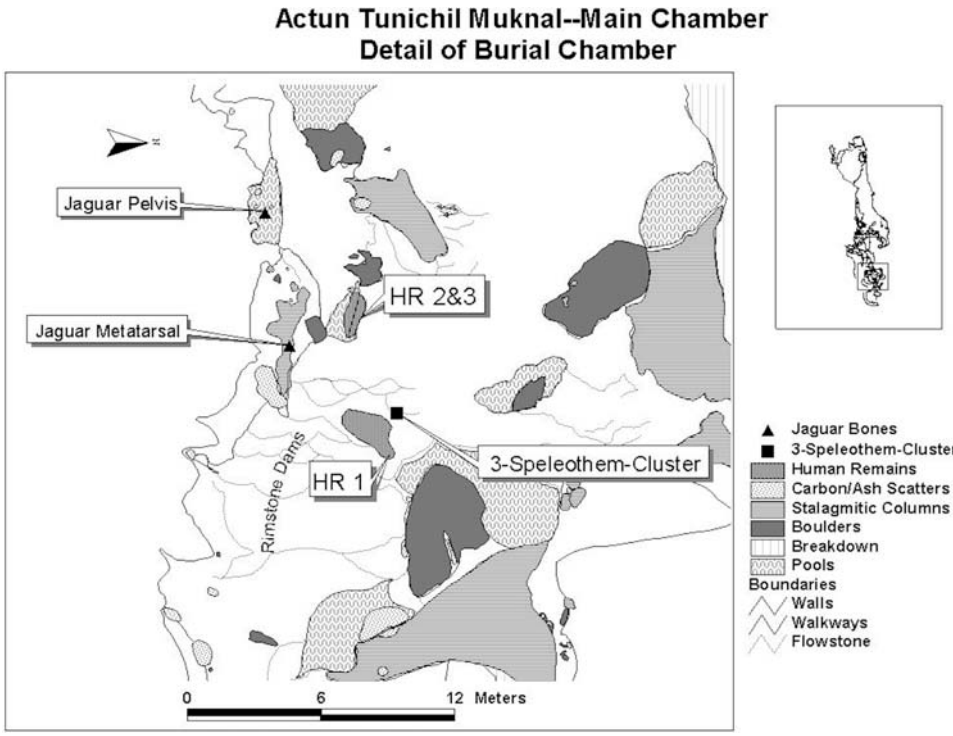


Figure 11.11. Detail of the Burial Chamber of Actun Tunichil Muknal illustrating the most central area of the cave. Note the two jaguar bones located within five meters of the 3-speleothem-cluster. After Moyes (2000).

water for rituals, stood on a stone so that she could reach into the middle of the pool and avoid drawing water from the edge of the spring for this reason. The concept is also present in Central Mexico. Aramoni (1990; also see Chapter 2 here) notes that in Tzinacapan, water coming from caves in the area is believed to be pure because it originated in the Underworld.

The creation of stone from dripping virgin water would likely imbue speleothems with special meaning, as Brady et al. (1997:725) have suggested. This implies that the 3-speleothem-cluster in the Main Chamber represents special hearthstones fashioned from pure water. The 3-Stone-Hearth element completes the quincuncial frame and, when juxtaposed with Hanks's model, the similarity to the Maya ideal is apparent (Figure 11.12).

Alternative Spatial Models

Although the quincuncial frame is an important model in Mesoamerican cognitive structure, other models exist. Taube (1988a:163–168), for example, presents

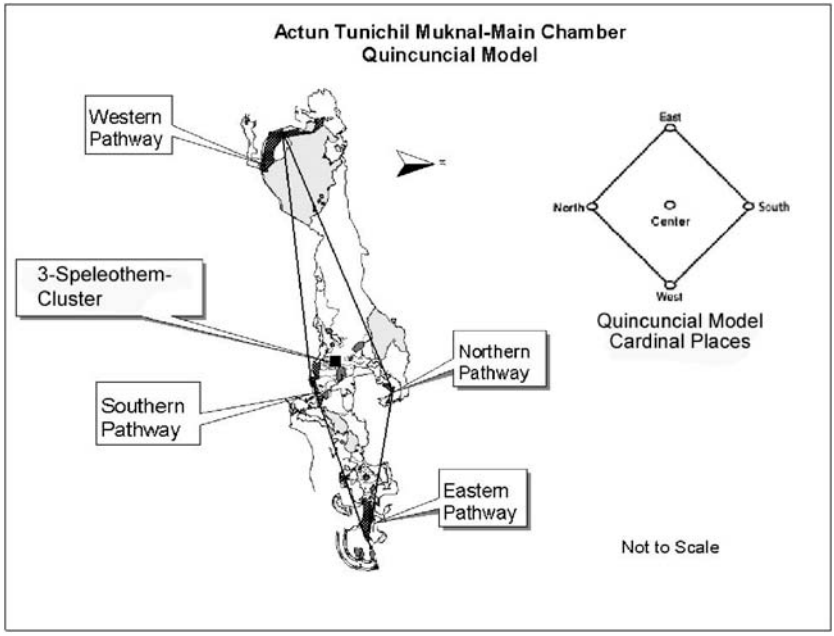


Figure 11.12. The quincuncial spatial frame in the Main Chamber of Actun Tunichil juxtaposed with Hanks's model of cardinal "places." After Hanks (1990:301, Fig. 7.2); Moyes and Awe (1999a, 1999b).

evidence from ethnohistorical texts for a circular world model. Early colonial dictionaries, the Chilam Balam of Chumayel, and the Chilam Balam of Kaua all make reference to, or show maps of, a circular earth model. Taube also points out that in Pre-Hispanic Central Mexico, the circular earth could be characterized by a round, flat mirror or a round calendar stone. A round, globular turtle could also represent the circular earth, as evidenced by the Late Postclassic stone tortoise altar figures discovered at Mayapán or in Classic Period depictions of the Maize God rising from a cleft in a turtle carapace found in Maya iconography. Taube (1988b) has suggested that turtles also represent time/space models signifying the twenty-year *katun* cycles in Postclassic Yucatán.

In both contemporary and colonial representations of the circular world, a cross or axis divides the circle into quadrants (Taube 1988a:168). Evidence suggests that this was an ancient cosmological construct as well. An Esperanza phase bowl depicting turtles with crosses on their backs was found in Tomb A-VI at Kaminaljuyu (Kidder et al. 1946:185). Additionally, pecked designs illustrating two concentric circles divided into quadrants by crossed lines were found at both Teotihuacan (Aveni 2000; Aveni et al. 1978) and Uaxactun (Smith 1950:21–22, Fig. 15a). It has been suggested that these are time/space models

that correlate calendrical cycles with astronomical events (Aveni 2000; Broda 2000).

More than one spatial model may operate simultaneously, however. For instance, both the circular and the quadrilateral worlds were referenced in rituals that established community boundaries. In his study of ethnohistorical documents, García-Zambrano (1994) points out that, to establish communities, the Zapotec, the Maya, the Mixtec, the Tarascans, and the Otomí conducted foundation rituals to establish or reestablish territorial boundaries. According to García-Zambrano (1994:220), the outward meaning of the ceremonies was to erect a "mini-cosmos" through ritual. The minicosmos was represented as an abstract time/space model of the universe in the form of a square within a circle. The circle represented time and the square, space.

This complex of rituals began with the identification of five mountains. Four were considered the periphery of the community, and the fifth, along with its water hole, became the center. From the central mountain, a group carrying ropes constructed of boughs and grasses that enclosed the space beat the boundaries of the new community, establishing borders along community perimeters. Although the visual referents for the demarcation of the boundaries formed a square with the four cardinal mountains, the procession followed a circular pattern. This pattern of movement agrees well with Gossen's (1974:34) model of the cosmos in which ritual circuits are depicted as moving in an oval pattern.

Following the beating of the boundaries, the group moved to the top of the central mountain, where two additional ceremonies occurred. A smaller circle of boughs, mirroring the larger circle used to mark the peripheries, was constructed (Alva Ixtlilxóchitl 1975:220). This was set on fire to sacralize the center and to promote the transit of the sun through the sky. Following this event, arrows were shot to the four cardinal directions. The arrows marked the territorial boundaries and divided the land into quadrants. This ritual enactment incorporated both quincuncial and circular patterns. The resulting spatial pattern was modeled by García-Zambrano (1994:220, Fig. 3) as a set of squares encompassed by a circle (Figure 11.13).

García-Zambrano's model agrees well with Hanks's (1990:350) observation that, among the Yucatec Maya, there is interplay between round and quadrilateral space in cosmological models. Hanks's informant provided a drawing of a cross section of his conceptual universe, which illustrated the earth as a quadrilateral flat plane inside a sphere (1990:305, Fig. 7.3). Similarly, Holland (1963:14–15), working in San Andrés Larrainzar, describes a model in which the sky is thought of as a cup over the flat earth. Viewed from above in two dimensions, these circular sky–flat earth models would look like a square earth contained within a circle, strongly resembling the model of foundation rituals reported by García-Zambrano.

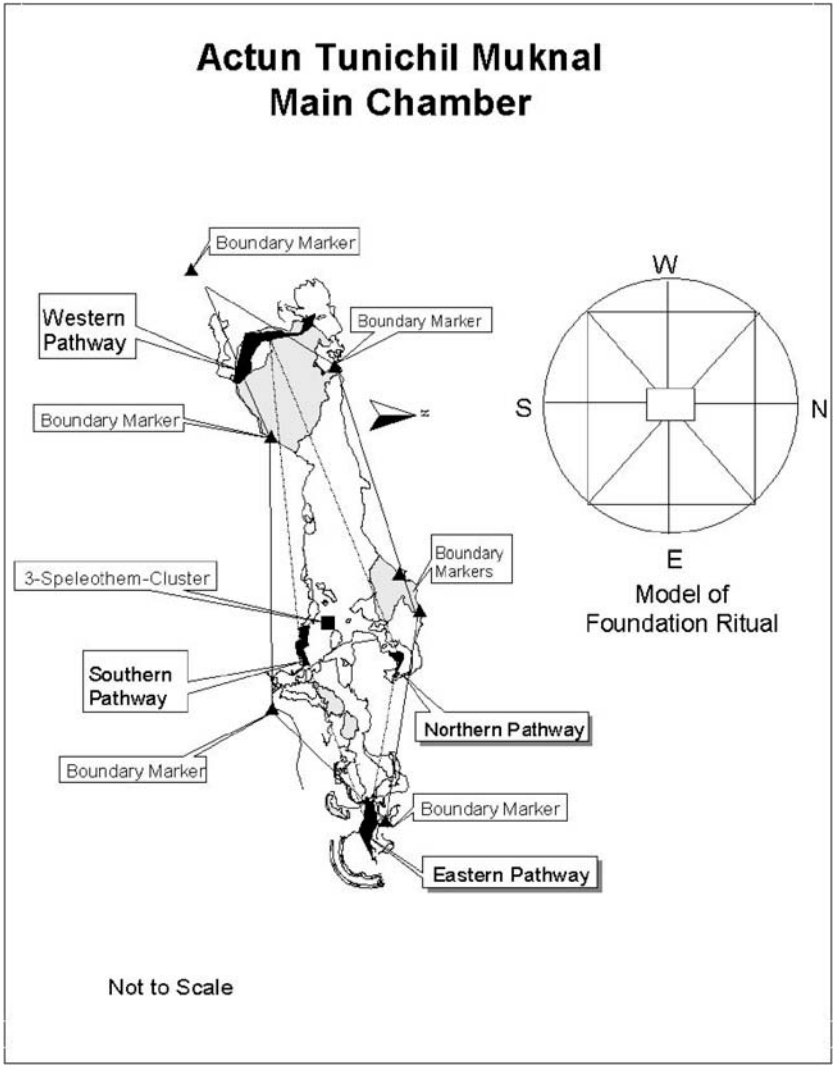


Figure 11.13. Ritual pathways, three-speleothem-cluster, and boundary markers in the Main Chamber of Actun Tunichil juxtaposed with García-Zambrano's illustration of the spatial model of foundation rituals. After García-Zambrano (1994:220, Fig. 3).

For archaeologists, the most important thing about cognitive spatial models is the way conceptualization affected behavior. In the study of material culture, it is the manifestation of that behavior in the artifact record that is of interest. Although Hanks's model of cardinal places emphasizes the intercardinal points as the corners of the spatial frame, García-Zambrano emphasizes the cardinal

points. However, in terms of behavior, they are in agreement, since, in foundation rituals, the "arrowing," or ritual marking, of the cardinal directions is directed to the intercardinal points, just as the Maya priest-shaman uses them to establish cardinal places.

As a part of foundation rituals, stone markers and/or stelae were set along borders to provide permanent boundary designations. These provided an enduring visual representation of the community boundaries to warn trespassers that they would not be tolerated (García-Zambrano 1994:219). Hanks (1990:356) reports a similar type of boundary marking in the modern community of Oxkutzcab. Several major boundaries separate the community from its neighbors and are marked with stone mounds. The markers are thought to have been placed in the woods by foreigners, wealthy men, or the town and may also delineate the property lines of wealthy ranch owners. They define the permanent limits beyond which one cannot go when choosing land for milpas. Anyone who crosses these markers is denounced.

Hanks (1990:388–389) also points out that, among the Maya, every space has a *yùumil,* or "lord owner." This concept includes all space from the expanse of the cosmos to the ownership of land. Not only do spaces have owners, but owners have spaces both in the corporal and the spiritual realms. This plays a central role in shamanic practice, particularly in the effort of the priest-shaman to keep spirits from wandering.

Marking of boundaries is also present in Zinacantecan K'in Krus rites or water-hole ceremonies reported by Vogt (1969:690–695; 1976:111–115). These renewal rites encircle the culturally utilized parts of the local environment associated with particular lineage groups in order to compensate the Earth Lord for the use of natural resources (Vogt 1976:114). Features of the natural landscape, such as caves, water holes, and rocks, as well as local officials' house-cross shrines, determine ritual stations. Offerings are given to the Earth Lord at stations constrained by geographical landmarks. As Vogt (1969:391) suggests, the definition of territorial geographic space is an important feature of Maya spatial cognition.

The placement of the seven isolated clusters in the Main Chamber (see Figure 11.7) does not correspond to the quincuncial model that is so often used in Maya ritual. Their position along the outside walls of the chamber (I2–I6) and in areas where further access is terminated (I1, I7) suggests that these artifacts are boundary markers. Their location along the natural perimeters of the Main Chamber appears to enclose the frame created by linear scatters and creates a configuration similar to that reported for foundation rituals. A comparison between illustrations of the cluster patterns found in the Main Chamber and García-Zambrano's spatial model illustrates the similarities between the uses of space in both instances (see Figure 11.13). I suggest that the placement of arti-

facts along peripheral boundaries within the cave interior represents the delineation of social space and is analogous to the beating of boundaries in foundation rites or K'in Krus renewal rituals. Although stone markers were used to reify boundaries in foundation rituals, artifact deposits appear to have been substituted to mark cave perimeters permanently.

Conclusions

Geographic information systems have most frequently been employed in archaeological studies for large-scale regional analyses and predictive modeling of settlement patterns and land use, but the potential of GIS as a tool for the organization and analysis of spatial data within a single site has hardly been explored. The use of a GIS in Actun Tunichil Muknal demonstrates that it is a powerful tool for the mapping and display of cave interiors. The GIS was vital in detecting global artifact patterns and made it possible to compare artifact patterns located within the cave to ethnographic spatial models.

Strong analogies can be drawn from numerous ethnographic and ethnohistorical studies of Maya ritual behavior patterns and can be used to explore the archaeological record. They demonstrate the pervasive use of the quincuncial template that references the creation of the cosmos. Although models of the cosmos made by the Maya themselves are commonly based on a quincuncial structure, they may be elaborated in more complex spatial models that utilize time/space/sky configurations in which the four-sided model is encircled.

In this chapter I have examined depositional patterns of artifacts from the Main Chamber of the cave. The analysis demonstrates that artifact patterning corresponds to García-Zambrano's spatial model of foundation rites. As an expression of the basic quincuncial model, linear scatters of artifacts represent ritual pathways that correspond to the four cardinal directions. The central feature of the model is marked by the 3-speleothem-cluster at the center of the chamber, which I argue represents the 3-Stone-Hearth at the center of the cosmos in Maya belief. Artifact deposits located in isolated areas function as boundary markers that express the encircling configuration. These data suggest that establishing boundaries was an important means of ritually defining a safe social space within the cave.

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CHAPTER 12

Ethnographic Notes on Maya Q'eqchi' Cave Rites: Implications for Archaeological Interpretation

ABIGAIL E. ADAMS AND JAMES E. BRADY

As this collaboration between a cultural anthropologist and an archaeologist demonstrates, the ethnography of current ritual practices involving sacred caves reveals a range of interpretive possibilities for archaeology in dealing with the ideology manifest in ancient Maya sacred geography. This chapter presents work with rural Q'eqchi' Maya and others whose ritual is centered on sacred sites known as the Tzuultaq'a (literally, "Mountain-Valley," not "god" or simply "mountain"). We draw primarily from fieldwork among contemporary subsistence agriculturalists of San Juan Chamelco in highland Alta Verapaz, where Adams, a cultural anthropologist, has carried out research since 1991, including joint research in 1993 with Brady. This chapter also incorporates observations by Brady, an archaeologist specializing in Maya cave use, of rituals held in 1988 and 1989 at the Lowland Petén site of Naj Tunich by Q'eqchi'-speaking Maya. In what follows, we discuss the Tzuultaq'a, then describe in detail a January 1993 ritual held in rural San Juan Chamelco, and conclude with the theoretical implications of such ethnography for the archaeology of cave use.

We note that care must be taken in drawing direct analogies to ancient practices, since the world and social parameters of the people with whom we worked are considerably different from those of ancient Maya peasants, and certainly from those of the ancient Maya elite. Yet there is ample evidence of cultural continuities in ritual practices across the centuries (e.g., Carlsen 1997; Christenson 2001; Farriss 1984; Fischer 2001; Freidel et al. 1993; B. Tedlock 1982; D. Tedlock 1996).

At the most general level, it is clear that sacred sites must be analyzed within a framework that relates each site to its place within local, regional, and supraregional systems of interconnected landmarks. These sites range from humble roadside altars to well-known caves to Spanish colonial churches still in use to recently constructed evangelical Protestant churches (A. Adams 1999) to major pilgrimage centers such as Esquipulas that draw devotees from across national

boundaries. In this, our work benefits from the post-1980s ethnography that sees rural Maya as deeply engaged in regional and extra-regional processes, a model at odds with that of the bounded, defensive, "closed corporate community."

We emphasize that the sacred sites known as the Tzuultaq'a are stages for creating relationships, including gendered relationships, between people, communities, and extralocal polities. In other words, the sites do not just "stand for" existing entities; they are critical in the creation and negotiation of relationships between such entities. Today, the Tzuultaq'a are vitally important for the cultural and spiritual revitalization movements of the Verapaz's Q'eqchi'-speaking majority. These sites are also used, at least indirectly, by most other ethnic and political groups in the region, including Ladinos (Hispanic-identified Guatemalans), for civic ceremonies, rites of passages, and healing. The elite in the region, including the Catholic Church, other foreign missionaries, and the Guatemalan military, have also played a major role in both terminating and reappropriating the practices oriented toward the Tzuultaq'a. It should be noted as well that archaeological excavations of lowland sites have contributed to the reinitiation of worship at these sites (see Demarest and García 2002).

The practices noted in this chapter have theoretical implications for studies of ancient Maya gender relations, particularly the gendering of everyday spirituality in non-elite or peasant society around the metaphor of human and agricultural fertility (see also Joyce 2000:7). We highlight the centrality of human fertility as an ongoing metaphor for organizing practices and ideology concerning milpa agriculture, including agrarian rituals such as those carried out within caves. As recent scholarship has documented, it is critical to avoid drawing conclusions about Maya gender practices based on Western cultural assumptions (Freidel et al. 1993; Joyce 2000; Schele and Miller 1986; Sigal 2000).

We further emphasize that it is critical to avoid another set of "western" assumptions during analysis of the ancient Maya's material record. While the ethnography of contemporary Maya societies demonstrates considerable heterogeneity of social organization, archaeologists tend to apply analogies of virilocal residence and a patrilineal basis to descent drawn from the western highlands, neither of which hold particularly for the "eastern" Maya such as the Q'eqchi'. In our research, the rituals at sacred caves and other sites were part of a spirit-possession cult in which elder Q'eqchi' Maya women played a primary role, although women did not physically enter the caves and leave offerings. It requires a nuanced approach to the material record left within the actual caves to discern the high ritual profile of women, femininity, and gender in general.

The Tzuultaq'a: Sacred Sites in the Landscape of Alta Verapaz, Guatemala

The strong terrestrial orientation of Q'eqchi' Maya spirituality undergirds contemporary worship, even after five centuries of indigenous appropriation of Christian missionizing, both Catholic and Protestant. Alta Verapaz is the region of Guatemala where Fray Bartolomé de las Casas attempted his "peaceful conquest," using the Catholic Church's cross and not the Spanish military's sword. Located some four hours north of Guatemala City via an asphalt highway that was completed in 1938, Alta Verapaz is often described as unique—protected from colonial exploitation because of its Las Casian legacy and alleged isolation. At the time of the Spanish invasion, the region was settled by Q'eqchi', Poqomchi', Lacandon, Acala, Chol, and other Maya groups that moved there in the Postclassic. The Q'eqchi' heartlands, defined by the *municipios* of Cobán, San Pedro Carchá, and San Juan Chamelco, are based on the precolonial settlements of Q'eqchi' speakers and on the *reducciones* enforced by Las Casas and the Dominican order. Q'eqchi' Maya have emigrated from these heartlands, both seasonally and permanently, since before the Spanish arrival. The Pre-Columbian record documents their fame as efficient traders throughout Lowland Guatemala and Belize (Cortés y Larraz, cited in King 1974:24; see also Wilk 1991:53). During the Dominican colonial regime, there was no wage labor in the Verapaz. To meet tribute requirements exacted in silver and cacao, Q'eqchi' men migrated in large numbers, many traveling as far as Salvador to work on Spanish indigo, cotton, cacao, and cochineal plantations (Sherman 1979:87). The introduction of coffee, and the accompanying Liberal land and labor grab, stimulated a massive and permanent Q'eqchi' emigration from the heartlands to the lowlands of the Petén and Belize, beginning in 1880, and then again in 1902 (Thompson 1970:24; Wilk 1991:42). In the highlands, the foreign-initiated expansion of coffee reorganized the physical and social landscape so that by the mid-1930s over 90 percent of Verapaz's indigenous people were part of the plantation system (McCreery 1994).

In the 1950s, government agrarian reform and land development programs built roads and opened untitled lands in the uncultivated lowlands along the Polochic River and in northern Alta Verapaz. Immigration into these areas increased 312 percent between 1950 and 1964 (Arias 1967:8–9). The immigrants maintained relations with heartland towns through family relations, commerce, and ritual life.

Today, most Verapaz residents speak Q'eqchi' Maya, the fourth largest of Guatemala's twenty-one Mayan-language groups. Q'eqchi' is the only Maya language that is growing in both numbers of speakers and territory. There are an

estimated 361,000 Q'eqchi' speakers throughout Mesoamerica, of whom some 90 percent are monolingual (Cahuec del Valle 1993). Q'eqchi' has retained a certain degree of linguistic integrity in that speakers from the traditional heartlands can understand Q'eqchi' as spoken by those who have settled in the lowlands of the Verapaz, Izabal, Petén, and Belize.

In using the term "sacred geography," we are looking at what is for the Q'eqchi' Maya the actual landscape that must be dealt with in all economic, religious, and political activity. Contemporary Q'eqchi' Maya and other residents of Guatemala's Department of Alta Verapaz make pilgrimages to various sites in the highlands, and in the lowlands of the Verapaz, Izabal, the Petén, and Belize, to invoke their relations with the supernatural. At the center of their worship is the figure of the Tzuultaq'a. The use of a term meaning "mountain-valley" to refer to the earth deity is a widespread pattern in Maya languages (Bunzel 1952:264; La Farge and Byers 1931:224; B. Tedlock 1993:454).

The term "Tzuultaq'a" is used to refer to the thirteen principal sacred mountains of the Q'eqchi' heartland and to the beings who inhabit caves within those mountains. Most Q'eqchi' know some, but rarely all, of the Thirteen, who are revered by people from the traditional heartlands and those who migrated to the lowlands (De la Cruz Torres 1967:283; Schackt 1984:19, 26; Siebers 1993; Wilson 1995:56). When used in prayer, the expression "thirteen Tzuultaq'a" embraces all the Tzuultaq'a because the number suggests completeness in Q'eqchi' (Schackt 1984:20). The Thirteen—Qana' (Our Mother) Iitzam, Qawa' (Our Father) Tulux, Qawa' Chiaax, Qawa' Chimam, Qawa' Xucaneb', Qawa' Raxon, Qawa' Raxuntz'unun, Qawa' Kojaj, Qawa' Saquipek, Qawa' San Vicente, Qawa' Ixim, Qawa' Sa'Mastoon, and Qawa' Siyab (Siebers 1993)—are significant throughout the Maya world; sites such as Xucaneb, Cojaj, and Iitzam regularly receive pilgrims from Guatemala's Western Highlands and, less frequently, from Honduras, Mexico, Belize, and elsewhere.

The Tzuultaq'a are personages with legends, gender identity, and personalities (Gordon 1915; Schackt 1984). They are known by titles meant to integrate them into the Catholic system: San Pablo Xucaneb, Santa María Itzaam. While Q'eqchi' acknowledge and worship other divine beings, many people—including Catholic lay officials and evangelical Christians—observe respect for the Tzuultaq'a. For traditionalist Q'eqchi' Maya, or for those who make the agrarian cult their priority, the impact of other deities is weak in comparison with that of the mountain-valley spirit. Carlson and Eachus (1977:38) note that "this attitude very probably stems from the bifurcation of the universe by the Kekchi into two jurisdictional areas: *coša* 'sky' and *rucic'oc* 'earth.' The vast distance which separates the deities of the sky from the physical world of earthlings effectively weakens any possible influence of Qawa' Saq'e 'Our Lord Sun,' Qana' Po 'Our Mother Moon,' and Kaq Cahim 'Red Star' (Venus)."

The Tzuultaq'a are said to be "the owners" by Q'eqchi', who petition these beings directly for the resources necessary for subsistence agriculture and human health. The Tzuultaq'a hold—and withhold—water, land, trees, wild game, corn, beans, chiles, squash, and other crops. People point out that one can see the crops inside the caves, captured in the shapes of the stalactites and stalagmites. If one does not ask permission, the Tzuultaq'a send strong winds, hail, wild animals, pests, bats, or assaults from one's own tools. In fact, human negligence of duties to the mountain-valley spirits is said to have caused the ecological degradation of the highlands that has accelerated since the 1950s. Intolerant foreign missionaries (both Catholic and Protestant), immigration to the lowlands, and the civil war in which the Verapaz served as a major battleground caused people to abandon their agrarian rituals. Consultants in the highlands have said that the Tzuultaq'a left their area in the 1970s, and went to the lowland Franja Transversal del Norte—but have returned, because the highland peoples are remembering their offering (in Q'eqchi', *mayejac*) to the Tzuultaq'a. The consultants acknowledge that the increased yields are directly caused by the commercial fertilizer that Q'eqchi' subsistence agriculturalists use, but they point out that farmers can afford to buy the fertilizer only if they have good relations with the Tzuultaq'a.

We have noted a strong association of sacred mountains and caves with water: these usually have a spring or stream inside. Sometimes it is said that the Tzuultaq'a has much water stored inside. The Cave of Cojaj, however, one of the thirteen principal Tzuultaq'a, drops in several levels. We were unable to explore the lower levels, as each required a technical descent. In the upper levels, the area used exclusively by today's Q'eqchi' pilgrims, there is no evidence of water. Nevertheless, it is important that local residents believe the mountain is full of water. In September 1992, rumors spread that an earthquake was imminent, which would split the mountain and cause a flood. Some community members living below the mountain moved to the opposite side of the valley.

This association of mountains and caves with water is widespread. Barbara Tedlock (1986:128) states that the K'iche' consider a mountain with a watery cave to be the ultimate source of rain and clouds. Vogt (1969:387) notes that the Tzotziles believe that rain clouds come out of caves and go up into the sky. Christenson (2001), in his analysis of the central altarpiece in Santiago Atitlán, makes the same observation for the Tz'utuhil Maya: caves store rain and rain clouds. A similar association of sacred sites with water has been noted for the Lacandon (Tozzer 1907:81).

Apart from the Thirteen, the Verapaz landscape is alive with the many Tzuultaq'a that surround and give each local community its identity (see also Wilson 1995:53). Rural communities relate to at least one local Tzuultaq'a, but in many cases identify up to four Tzuultaq'a in the hills around their settlement. These

Tzuultaq'a live in their *rochoch pec* (stone houses) overlooking the community. The word *mountain-valley* indicates the ideal ecological unit for the Q'eqchi' economy, which is a valley where milpa can be planted and where houses are built, surrounded by wooded mountains that provide trees, rain, game, medicinal plants, and other forest products. The word can be used in everyday speech to indicate a geographical unit, but as Schackt (1984:18) notes, the concept is loaded with divine significance.

In the karstic zone of Alta Verapaz, many other geographical features lend themselves to use as sacred sites. Caves, particularly in association with water either real or imagined, are the best example of a sacred nexus (Schackt 1984:18), but we found that other landscape features such as bluffs, cliffs, boulders, overhangs, and riverbanks provide potential locations for ritual activity and may be considered Tzuultaq'a. Schackt (1984:25–26) documented that Q'eqchi' immigrants to Belize chose a boulder as a focus for their ritual activity in the area between their milpas and the forest. In San Juan Chamelco, Catholic catechists who participate in the post–Vatican II church reforms may not use the "traditional" caves but will offer *mayejac* at a boulder on the edge of their milpa. Adams has documented cases in which women offer *mayejac* to the Tzuultaq'a on river- or stream banks, which again points to the association of water with the worship practices directed to the Tzuultaq'a (see also Wilson 1995). These categories of less-imposing sacred sites are not unique to the Q'eqchi' but have also been noted among the K'iche' (McDougall 1946), the Tz'utuhil (Lothrop 1933:81–82) and other groups (Termer 1957:164–166).

Furthermore, built features such as crossroads and churches also serve as Tzuultaq'a. In today's postconquest syncretic context, Cobán's Calvary church and Tactic's Chi-ixim sanctuary are considered the most outstanding Tzuultaq'a of the region (see also Cabarrús 1979; Siebers 1993; Wilson 1995). Catholic churches were constructed on hills and, it is said, over lakes and caves.

Finally, on the roads between communities and between barrios of towns, little chapels and altars have been set up for *mayejac.* These are marked with Maya crosses, but also by certain rocks or rocky niches. These minor sacred sites signal a critical aspect of all Tzuultaq'a: their role in the relationship between groups and polities, as discussed below.

Sacred Sites as Markers of Transition

The word "Tzuultaq'a" has another deep meaning in everyday life. The word indicates journeys across the region: people talk of their experience traveling from community to community as "Xo-nume chiru Tzuultaq'a" (We passed through these hills and valleys). People also say that in dreams the Tzuultaq'a may appear

in the form of or "like a road." In the Verapaz, ritual serves as a critical means of extra-community outreach based on the Maya key symbol of the road (*be';* see A. Adams 2001). The mountain-valley spirits, the Tzuultaq'a, are the most powerful "roads" and travelers of the Verapaz.

Many ethnographers have documented the role of the Tzuultaq'a as sacred sites in the highlands and the lowlands and described these as the heart of Q'eqchi' Maya identity. One describes the Tzuultaq'a as the "container for all expressions of Q'eqchi' collective imaginings" (Wilson 1993:123). As Abigail Adams notes (2001:202), a more indigenous and useful imagining would be the Maya cross, rather than the bounded container. In fact, the Maya cross, with its five points, is the marker used on local roads to indicate the Tzuultaq'a. Each Tzuultaq'a marks the crossroads and transition between Verapaz communities, and between the competing interests at stake in the Verapaz.

Viewing Maya sacred sites as junctures of encounters and social fields has significant implications for archaeologists. In pilgrimages to worship sites, the power of movement from one stage to another is invoked continually (see also Christenson 2001). Q'eqchi' travel to their sacred sites on various occasions, such as during the rituals concerned with subsistence agriculture, illness, rites of passage, and commerce. The most important are rituals concerning the annual agrarian cycle: before the clearing of fields, planting, weeding, and, in particular, harvesting corn (Goubaud Carrera 1949:35–36). At Naj Tunich, pilgrimages become much more frequent starting on May 3, the Day of the Cross, and continue during the month until the onset of the rains. Some Q'eqchi' farmers will make offerings to the sacred sites before planting beans and those in the Polochic River Valley before planting rice and cardamom.

During major life-cycle passages such as marriage, or in the cases of illness, personal risk, birthmarks or defects (*awas*), people supplicate the Tzuultaq'a for the health of the person affected and for the safety of his or her soul (Bringhurst 1986; Heyden 1976; Wilson 1995). Q'eqchi' will offer *mayejac* during community events as well, particularly during the change of sacred office, such as the annual rotation of the *chinames* (individual couples responsible for organizing and financing the rituals and major fiestas of the barrio or *aldea hermitas*), the ordination of Maya ritual practitioners, and the yearly spiritual renovation and offering made by Q'eqchi' healers (*aj ilonel*). The installation of Catholic priests has also been celebrated with vigils and cave pilgrimages to petition the local Tzuultaq'a, as occurred at the Lowland Polochic Valley town of La Tinta in January 1993.

The sites also play an important role in preparations for marketing and travel. Both women and men will stop at roadside shrines on their way to market centers to pray and to leave offerings of candles, *pom* (incense), and sometimes flowers. Sixteenth-century sources mention travelers performing self-sacrifice at such

shrines (Tozzer 1941:222). Q'eqchi' women make *mayejac* to sell in the local market. In La Tinta, cooperative members carry out a vigil and offering for the Tzuultaq'a every six months to ensure success and lack of corruption in their work.

The *Mayejac* Ritual for the Planting of Corn

Since 1992, Adams has participated in a number of Q'eqchi' community preparations for corn planting and other occasions, and in January 1993, Adams and Brady joined members of a rural community, Chajaneb, in their ritual preparations before clearing fields at the beginning of the dry season. This community had a highly organized spirit-possession cult centered on the Tzuultaq'a. Here we provide a processual description of the event, with references to other experiences and the literature, in order to draw conclusions.

Chajaneb is a forty-five-minute walk from San Juan Chamelco's *cabecera* (literally, "head town"), along a regularly maintained gravel road, now with bus service (which did not exist in 1993). The community includes relatively level land in the mountain valley in which the county seat is located, but also steeply inclined lands rising up to the bluffs of Pa'apa Mountain. Most of the lands are held by the small resident farmers, a majority of whom must work in another capacity, including as seasonal agricultural laborers in the lowlands. Several wealthier town residents and foreigners also own land in the community for recreation, cash crop production, and commercial tourism. The community hosts one of San Juan Chamelco's four rural (and often unstaffed) health centers, and has an elementary school and teacher. While the community was not a battleground during the violence, and although San Juan Chamelco suffered a relatively low level of disappearances and direct counterinsurgency, most of the community's men had personal experience with the military due to the forced draft and mandatory civilian militias in which every man had to serve, often several nights a month, through 1994.

The community also reflects the religious pluralism of most of Guatemala: its residents ally with reform Catholicism, traditionalist Maya practices, three evangelical Protestant denominations—or sometimes combinations of these. The people who hosted us are traditionalist Catholics who participate in some aspects of reform Catholicism. They, and most residents of Chajaneb, mark the beginning of work having to do with corn planting with ritual observances, whether these be house rituals, a special Catholic mass, a Protestant prayer service, or—in the traditionalists' case—*mayejac* to the Tzuultaq'a. In Chajaneb during our observation, the participants began their preparations by collectively setting a date for making offerings to the Tzuultaq'a and for the work

schedule. For a period of days (in Q'eqchi', *oxlajuu koxaar*—forty, thirteen, and six days are all mentioned in the literature and in Adams's fieldnotes) prior to the *mayejac,* participating men and women abstained from various things, including sex, certain foods, and angry words or actions (see also A. Adams 1999; Goubaud Carrera 1949:314; Sapper 1897:283; Siebers 1993; Thompson 1970:173; Wilson 1995). Sexual abstinence appears to be a requirement before cave rituals throughout the Maya area. Redfield (1941:314) notes such a prohibition in Yucatán; McGee (1990:53) among the Lacandon; and Barbara Tedlock (1986:134) for K'iche' rituals in Utatlan.

In the days immediately before the *mayejac,* community women and some couples together assembled the necessary elements of the offering. Each household contributed offerings or funds for the purchase of offerings in a major marketplace. Household elders then went to the Calvary churches of Cobán, to Chi-ixim in Tactic, or to other Catholic chapels to pray and leave part of the offering. Community members also visited the families in town with land in Chajaneb and collected money to buy offerings for those households. We were invited to contribute and to join the ritual as part of this process.

The evening before the cave pilgrimage, the families gathered in the simple wood-and-thatched-roof home of one elder (in Q'eqchi', the *xbenil xtzuul,* the "first of the hill") to carry out an all-night vigil. Respected elders and ritual officers from other communities were invited. While Adams was invited to sit with the men, the community women either worked in the kitchen or took seats on reed mats in the main room. The women were separated from the men, who were seated on benches around a rustic table near the house's spectacular altar. Both men and women prayed and prepared the *mayejac* offerings, which included *copalpom* (an aromatic tree resin), candles, *rax cacao* (untoasted cacao), *saquicaalt* (uncolored turkey broth), pottery in which to carry and burn the offerings, corn tamales or porridge, turkey or chicken meat, blood, and sometimes flowers. In other vigils not influenced by the reform Catholic admonition against alcohol, *boj* (the local fermented corn beer) is often served and offered on the altar.

At 11:30, word spread that "they had arrived." It turned out that the Tzuultaq'a were also attending the vigil. An elder seated on the *petates* had entered into trance and her voice rose above the bustle of the room. She spoke in an attenuated, whistling, high-pitched tone. One of the male guests rose from our table and went to the woman's side. He began to call out her indistinct words. The first message: "Tell the gringa to stop taking pictures." (The vigil's hosts had asked Adams to take pictures and give them copies.) Soon the elder announced the names of the Tzuultaq'a who were present. Several children, big and small, got up and put on special headdresses made of poinsettias. They danced as each Tzuultaq'a requested a favorite *son,* played by a harpist, a violinist, and a drummer. The young dancers, seven girls and seven boys, were called "*ángeles*" and

"*sumaatineb,*" a Q'eqchi' word which means "answered word or couple." After several *sones,* a man supported the entranced and exhausted woman. Her shawl was thrown over her head and shoulders.

It turned out that the possessed woman was highly respected as a person with a *q'un ch'ool* (sensitive heart). She was said to have received the Tzuultaq'a many times and delivered important messages. The all-night vigils were, indeed, opportunities to host the Tzuultaq'a and receive through the spirit medium specific instructions for the following day's visit to their homes, the *rochoch pec,* to leave the *mayejac.*

At daybreak, certain men, led by a community elder, prayed, then went to one of the community's sacred sites, and then to Qawa' Xucaneb, one of the thirteen principal Tzuultaq'a. It should be noted that these pilgrimages are not necessarily restricted to points in the Q'eqchi' area but may incorporate particularly sacred sites such as Esquipulas. This has been observed both in the area of San Juan Chamelco and in the Petén, where one pilgrimage circuit included journeys to Esquipulas, San Pedro Carchá, and Naj Tunich. Adams found that in many rural communities of San Juan Chamelco, Cobán, and San Pedro Carchá, traditionalist men and women aspired to travel to Esquipulas as pilgrims. The visitation of sites outside of one's area is not a phenomenon restricted to Q'eqchi' Maya, in that Naj Tunich has drawn pilgrimages from as far away as Mazatenango in the K'iche' area.

When the participating men arrived at Xucaneb with the offerings, they removed their belts, other metal items, and their hats before entering. We also noted this practice in one of the pilgrimages to Naj Tunich, where the leader explained that metal was offensive to the ancestors (*antepasados*). One of Wilson's (1995:71) consultants explained the custom as being due to the fact that "one must not go in front of the *Tzuultaq'a* as a rich man." During the pilgrimage to Xucaneb, pilgrims burned *pom,* lighted candles, and poured the untoasted cacao, blood, and *saquicaalt* in the mouth of the cave. Once this "feeding" was complete, each one picked up one of the walking sticks left at the cave entrance and continued deep inside to an altar. There, the participants invoked the names of the thirteen principal Tzuultaq'a and then made their requests for the harvest, rain, sun, family health, and wealth. They exited, leaving the sticks at the entrance, and returned to their homes to eat turkey soup with their families and the community. While the selected men had been on the journey to leave the offerings, the rest of the community had been preparing the celebration meal, the *paabank,* for their return. On their way home, the Chajaneb pilgrims stopped at the local chapel of Xucaneb community to pray. They planned to visit their neighboring community's Tzuultaq'a with some minor offerings as well.

Organization of Q'eqchi' Maya Sacred Geography

The regional nature of Q'eqchi' sacred geography as set out here, as well as the description of a set of cave ceremonies which took place during a single pilgrimage, have important implications for archaeologists working with cultural landscapes and with caves. Q'eqchi' people think of their landscape, and organize their practices, in terms of relationships among different locations. Any single sacred site, or community, is integrated into a regional network of sites.

Q'eqchi' sacred geography is mapped on a number of territorial scales, the largest of which revolves around the thirteen Tzuultaq'a which encompass the entire Q'eqchi' area. The invocation of the thirteen principal Tzuultaq'a during the ceremony at Xucaneb has correlates in other parts of the Maya area, where the names of all the important caves and cenotes in the region are invoked (Góngora Cámara and Preuss 1990:144; Redfield 1941:117; Redfield and Villa Rojas 1934:349–350). The pilgrimages observed in the Q'eqchi' area and at Naj Tunich include at least a local site, one of the thirteen principal Tzuultaq'a, and, today, a "syncretic" site (a Catholic chapel or church). A similar pattern has been observed at Esquipulas, where pilgrims stop at the Hill of San Sebastián, the Piedra de los Compadres, the Cross of Paste, and the caves along the Río Milagro, in addition to the Basilica of the Black Christ (Smith 1979).

The pilgrimages as a process also integrate local communities and local production areas with regional commercial centers. The pattern of visiting both a local cave and a regionally important cave that may be associated with a prominent center of production or distribution has implications beyond simply the study of sacred geography and pilgrimage. The exchange of local produce in the market for the purchase of items at a regional center is an economic component that may have been important in Pre-Columbian systems of regional and interregional exchange (A. Adams 1991:113; McBryde 1969, 1:247–248). In Pre-Hispanic times, when warfare between sites may have made trading expeditions across disputed territories difficult or impossible, economic activity carried on under the idiom of the pilgrimage may have been especially important.

The practice of visiting multiple sites, both a local and a regionally important cave, suggests that even smaller, less-imposing caves may have been affected by visits from nonlocal pilgrims. The transformation of local produce for the purchase of ritual items at a regional market, however, might make such visitation difficult to detect. It is generally assumed that assemblages from regionally important pilgrimage caves should contain a greater variety of artifacts from a great many production centers, which would reflect the pilgrims' places of origin. The actual situation could be complicated if ancient Maya customs were similar to those practiced today. Today, Q'eqchi' will pick flowers, which they sell, and then buy flowers from the market near the pilgrimage site, which they

make as offerings. The majority of the pottery offered in Xucaneb comes from the four regional markets of Cobán, Chamelco, Carchá, and Chamil. Therefore, it might not be possible, using neutron activation analysis of Pre-Columbian cave ceramics, to reconstruct the origins of ancient pilgrimage routes. Furthermore, it is important not to assume that major sacred sites, such as Xucaneb, which received visitors from all over the Maya world, were associated with major economic centers; today Xucaneb is a small rural community without a market or any particular production specialty beyond subsistence milpa production. It is possible that the communities associated with the Thirteen were, in antiquity, distinguished political or economic centers, but excavations of the considerable contemporary ritual activity in Xucaneb would not correlate with levels of secular community development (see also Turner 1979).

In the highland Q'eqchi' regional system, each community has specific worship sites. The sites Adams has documented are located on all peripheries of the community. They do not serve as official survey markers, but do highlight the major extensions of the community and the primary ecological zones that belong to it. In the January 1993 *mayejac,* the Chajaneb pilgrims incorporated other communities' sites into their route and invited elders and guests from other communities to participate in the *mayejac* vigil. The sacred sites, therefore, mark the limits and zones between communities, as the roadside altars also mark the passage between communities, altars where travelers passing through foreign lands can make their offerings and petitions to the Tzuultaq'a. Thus, the participation of the two communities in a pilgrimage to local landmarks is a revalidation of their political boundaries performed within the context of ritual and ceremony. We also know from the ethnohistorical record that the ancient Maya placed shrines and altars along roads very much as the Maya do today.

The military as a regional institution has also had a primary impact on local and regional sacred sites. In the Verapaz, the military dubbed its major base on the outskirts of Cobán the "Home of the Soldier Tzuultaq'a." The military had considerable reach into local communities and individual lives, including ritual life, through forced recruiting and surveillance of community movements. In the Verapaz, in fact, the military created "model villages," into which indigenous refugees were forcibly resettled in the 1980s (see Richards 1985; Wilson 1995). We note that during much of the more than thirty-six years of violence, rural Maya were unable to carry out either their ritual or their economic life freely. The military's actions contributed to eradicating indigenous worship centered on the Tzuultaq'a by murdering indigenous ritual leaders, restricting movement within the region, and destroying sacred sites (see also A. Adams 1999; Siebers 1993; Wilson 1995). In this context, the worship movement that we were invited to join was redeveloping, under considerable tension, between neighbors before war ended in 1996 with the signing of the Guatemalan Peace Accords.

We would also note the long history of other regional institutional actors in the appropriation and termination of sacred sites. In all of Mesoamerica, the Catholic Church, since the colonial era, has actively suppressed, terminated, or redirected the use of indigenous ritual sites. The Spanish practice of placing churches on top of indigenous sites and temple foundations is well documented, with the Templo Mayor in Mexico City being the outstanding example. Most of the Catholic pilgrimage destinations were spots that had previously been the focus of indigenous devotion (Ortiz de Montellano 1990:16). Among the cave sites that suffered this fate are Chalma in Central Mexico (Bennuzzi 1981; Campbell 1982:10; Carrasco 1950:149–150) and Esquipulas in Guatemala (Brady and Veni 1992). Less-celebrated sites were undoubtedly terminated in large numbers by the actions of the clergy. Gage's (1958:279–285) looting of a cave shire and the destruction of the idol was probably copied innumerable times across Mesoamerica. More recently, various U.S.-introduced evangelical Protestant denominations have, at one time or another, worked quite closely with the Guatemalan state and been intolerant of the agrarian cults centered on the Tzuultaq'a. Today, however, the Catholic Church and several Protestant denominations are proving to be important in the revitalization of culturally sensitive worship, including elements concerning the Tzuultaq'a.

The violence that ended in 1996 in modern Guatemala does not provide a direct analogy to the political and cultural situation in Pre-Columbian times. Instead, we wish to point out that local ritual sites are of interest to regional and foreign actors in times of warfare and invasion. At Dos Pilas, the cave under a natural hill that was modified into a huge pyramid was "terminated," apparently after the final defeat of the site. The entrance to the longest tunnel was blocked by yellow clay and the entire entrance was sealed with stone (Brady 1997:608–609). At Naj Tunich, the entrance to the tunnel system was blocked by a stack of cut formations and the tombs on the balcony were looted (Brady 1989). This pattern appears to be quite ancient. A small cave containing a number of burials of important individuals appears to have been looted in the Late Preclassic (Garza et al. 2001).

Finally, these sites can be renegotiated and regenerated. In the town of San Juan Chamelco, at the time of the study, an evangelical Protestant family was preparing an addition to their house which would engulf a roadside shrine—a large wooden Maya cross covered by a shed roof—on their property. They consulted with traditionalist ritual elders, followers of a faith other than theirs, and helped the elders organize a work party to move the cross and shed down the road. In another case, in 1976, a Cobán Q'eqchi' elder dreamed of a sacred site, which his family and a group of young Maya followers interested in renewing traditional Maya practices searched for and found. They began a series of venerations at the site, located on the outskirts of Cobán, Alta Verapaz's depart-

ment capital, and built a small house and altar there. The sacred site has since evolved into a renowned pilgrimage destination for Q'eqchi' Maya, both urban and rural, and other Maya working in the spiritual revitalization movement (see A. Adams 2002; García 2002). Real estate exigencies in one of these cases and regional political and ethnic resurgence in the other two led to the relocation of sacred sites. Such relocations would appear in the archaeological record as dense artifact deposits reflecting heavy utilization but with little or no developmental history.

Finally, archaeologists have noted that their work in locating and excavating Lowland Maya caves has resulted in renewed pilgrimages initiated by contemporary Q'eqchi' Maya. Naj Tunich reemerged as a pilgrimage center after pictures were published in the Guatemalan newspaper *Prensa Libre* in 1980. During the second season of archaeological survey at Naj Tunich in 1982, one of the workers reported that the Q'eqchi' living in Tanjoc, a village some twenty kilometers from Naj Tunich, had heard rumors about the size and grandeur of the cave. They were convinced that this was the home of the corn god and wanted to come to Naj Tunich before the rains started to make offerings for a good harvest.

Unfortunately, the field season ended without our hearing any more from the people of Tanjoc. Various problems prevented Brady from returning until the spring of 1988. In the intervening six years, news of the cave had spread by word of mouth to the villages surrounding Naj Tunich. When work began in 1988 at least a dozen villages, most located within thirty kilometers, were making visitations to the cave (see also Demarest and García 2002 and García 2002 for reports from Cancuen, in Lowland Alta Verapaz).

Cave Ritual and Pilgrimage as a Gendered System

The issue of gender, especially in relation to access to certain types of features in the sacred landscape, is now receiving more attention in Maya archaeology, ethnography, and epigraphy. In this section, we contribute to a more contextual gender analysis of sacred site use, particularly in terms of how the gendered processes of rural Q'eqchi' Maya worship can inform analysis of the gendered relationships of ancient Maya. In discussing these issues, we draw on feminist archaeological analysis of gender as something that one does, rather than as something that one is (see also Joyce 2000). The perspective of gender as performed is critical in understanding Verapaz ritual today, in which gender is a criterion conditioning the type of participation in worship of each person—men and women—involved in petitioning the Tzuultaq'a.

Considering how little ethnographic effort has been focused on caves in general (see Chapter 1 here), it is not surprising to find how little attention has been

paid to the larger gendered context of Maya men's and women's ritual practice connected to these sites. Our research concerning a Verapaz prohibition against women physically entering caves, and a related Q'eqchi' term, *muxuq,* is illustrative.

A search of the ethnographic literature reveals a widespread prohibition against the use of caves by Maya women. This is not restricted simply to the Q'eqchi' (Carot 1989:25–26; Gould 1968:167; Wilson 1990, 1995:68) but appears to be shared across the entire Maya area (Blom and Duby 1957:348; Cayetano 1982:6; Gómez N. 1974:8; Hernández Pons 1984:39; Redfield 1941:119, 121, 314; Redfield and Villa Rojas 1934:139; Shook 1952:250; Thompson 1975: xxi; Toor 1947:34–35; Villa Rojas 1969:210; Wisdom 1940:374–375). We would also note that this is not simply a recent development, since the pattern was noted by Stephens (1962, 2:16) in the 1840s and by Tozzer (1907:149; 1941:106n, 128n) at the beginning of the twentieth century among the Lacandon.

In the Verapaz, women are said to be *muxuq,* and therefore unable to enter caves; men are never *muxuq.* The manner in which the Q'eqchi' word is handled in the literature reveals a gendered blindness. In the Q'eqchi'-Spanish dictionaries developed by Catholic and evangelical Protestant linguists (Haeserijn 1979; Sedat 1955), the word is translated as "to not be worthy of, to profane" (in Spanish, *desmerecer, profanar*). These scholars connected *muxuq* with biblical concepts of sin and sex. They were also very influential religious leaders in the bilingual reevangelization movement and in Q'eqchi' ethnography. Wilson (1990:83), for example, follows their interpretation in translating *muxuq* as "profane" and analyzes the injunction "Maamuxuk aawib" (Do not profane yourself by having sex [before the corn planting]) as evidence that "sex is felt to be *maak,* which can be translated as 'sin' or 'culpability.'"

Adams, however, found that there had been little research on what turned out to be a complex topic. For example, everyone she consulted said that both women and men were equally likely to sin or equally likely to be devout. Therefore, although men are not *muxuq,* they can be just as "profane" as women. This contradicts any simple gloss of *muxuq* with Western concepts of "sin or sex." *Muxuq,* it turns out, means "to pass a shadow over people or their personal items and tools." A Q'eqchi' language teacher related the word to *muquk* (to hide) and *mu* (shadow). Women learn to perform—or to avoid performing—*muxuq,* beginning when they are little girls. They are enjoined to hold their skirts close to their bodies when they pass people and to avoid stepping over peoples' possessions, food, or bodies (in Q'eqchi', *maamix a'an;* see also Eber 2000, for examples from Chiapas Maya). Similarly, in cases of emergency where a Lacandon woman must chant, she "catches her skirt between her knees as she squats to tend the god pot" (Davis 1978:56). More specifically, *muxuq* refers to what is

hidden under Q'eqchi' Maya women's *cortes* (skirts made of several yards of fabric and which can be made even more voluminous by wearing several underslips). Women's bodies are perceived as "casting shadow," while men's bodies, specifically, their genitals, do not. The word thus indicates that women are sources of shadow.

There is, therefore, nothing inherently profane about Q'eqchi' women that prohibits them from holding ritual office or from entering sacred spaces. Rather, in ritual processes, certain qualities associated with women and men are elicited in certain contexts. In Alta Verapaz, both men's and women's bodies serve symbolically in the ritual process to model certain practices and avoidances. If their performances are not effective, their bodies—and their households and communities—are the sites of reprisal, in the form of hunger, accidents, illness, and violence.

Q'eqchi' men and women, in fact, aim to enhance women's performance of *muxuq* by wearing *cortes.* At the turning of each year, men and women go together to choose new *cortes* for the women, which are purchased by the men. During the many year-end holidays, women and men step out together, with the women newly amplified in fresh, full *cortes* and several slips, sweeping out a wide circumference of influence.

Doing *muxuq* also enables women to serve as the best trance subjects, the best embodiment of the Tzuultaq'a who are invited to visit during the evening vigils. Women are said to be particularly suited to this form of discourse because of their bodies' affinity with the mountain-valley being, the coldness of their genitals, and their ritual position seated on the earth on reed mats. In ritual, women's affinities with the mountain-valley spirits are emphasized in their dress, such as the *corte* and the *tupuy,* the red woven hairband that can be several feet long and is directly related to the snakes said to guard the cave entrances to the Tzuultaq'a.

Like the Tzuultaq'a, women are associated with the, at times, dangerous flow of water, or fluid. Water is a vital and paradoxical resource in rainy Verapaz. Because of the karstic geology, heavy rainfall causes temporary but destructive floods and erosion. In many areas, water falls and then drains away through porous limestone to the water table without forming useful rivers. Like water, the genital fluids of men and women are humorally considered "cold," potentially powerful, but also dangerous. Women, however, are said to be open, while men are closed. They play different roles in receiving and being received by the Tzuultaq'a.

Furthermore, in researching the ritual implication of *muxuq* (initially, with an interest in the cave prohibition), it became apparent to Adams that an "indigenous asymmetry" had been further skewed by different Western-informed dichotomies. Adams interviewed several ritual elders, both men and women, rural and townspeople, people involved in ongoing local traditionalist rituals and in

regional and national cultural-revitalization movements. Those consulted presented different positions on the issue of *muxuq.* Some said that women could not enter caves, period, while others drew on reform Catholicism and a revisionist reading of the Bible to find examples of women entering caves. Some voiced Pauline perspectives and equated *muxuq* with an inherent state of female sin, rather like the foreign missionary dictionary writers. Others presented John Locke–like analysis, judging that increased equality for women would reflect the progress of Q'eqchi' peoples—and therefore women should enter caves now. In the spiritual-revitalization services observed by Brady at Naj Tunich, women young and old entered the caves with the men of their communities to leave offerings and make their petitions. The women gathered around the cave altars behind the men.

We note that the arena of worship is one in which people "do" gender quite explicitly, with more heightened restrictions and possibilities than in many secular areas. Q'eqchi' Maya men and women, in fact, enjoy notably more egalitarian (in the Western sense) relations and statuses than those documented in the ethnography of the western highlands. Abigail Adams (1999) observed much more flexibility and economic, ritual, and even political power and partnership in everyday life.

In the Verapaz rituals centered on the Tzuultaq'a, gendering affects the pilgrims and others at four levels: first, those who prepare the *mayejac,* principally the men and women household members; second, those who send the *mayejac,* who can be men or women; third, those who deliver the *mayejac,* who, again, can be men or women, depending on the context; and, fourth, those personages who receive the *mayejac,* the Tzuultaq'a. Throughout these levels, the heightened awareness of gender complementarity marks proceedings, as it does in other ritual settings. In the Verapaz, women and men are named as a couple to ritual duty; in wartime or when other events remove their menfolk, Q'eqchi' women are expected to assume all of the couple's ritual duties.

For single men or women, ritual office is much more limited. In fact, the spirit medium whom we observed has not served in this capacity since her husband left her for another woman. She is, however, always invited as a ritual elder to the spirit-possession events.

In practice, as we noted in the pilgrimage description, the ritual process opens with the separation of the sexes, as men and women practice sexual abstinence, maintain a spatial separation during the night vigil, and preserve a strict division of work in their ritual offices. In Q'eqchi' agrarian rites in which *mayejac* is left in a cave, on a bluff, or under an overhang, women may be prohibited from entering or from joining the pilgrimage, as they are forbidden to participate in rites performed by a number of other Maya groups. However, women do leave *mayejac* by rivers, roadside altars, and in the chapels and altars of the commer-

cial and syncretic ritual centers, such as the Calvary chapels. The sacred sites of rivers, roads, and market centers are feminine or inclusive: these intraregional or extra-community sites are accessible to women. There are many situations in which women—for example, widows and woman healers who make offerings before planting, arranging a marriage, or renewing their healing powers—send their *mayejac* with male pilgrims, who then make the offering in the woman's name.

Furthermore, women alone, in groups, or, more rarely, with their spouses carry out all the marketing needed to obtain the material offerings made during the series of rituals. In fact, a 1993 study by Q'eqchi' linguist Eleuterio Cahuec demonstrates that Q'eqchi' women travel beyond their community far more regularly than do men (Cahuec del Valle 1993).

Under certain circumstances, Maya women and girls assume roles, other than that of spirit medium, that stand out in their community. For example, a young girl reported repeated dreams and visions to her parents, who recognized them as a call from their community's Tzuultaq'a. In this case, with the assent of the community's ritual elders, her mother took her to the cave entrance of the mountain-valley spirit, where the child saw a golden line leading into the cave and heard a voice inviting her to follow it inside. She followed the line inside, but then decided to return. As an older woman, she was, like the spirit mediums, considered a woman of *q'un ch'ool*.

The act of ritual also regenders men, who must follow the ritual restrictions as closely as women do. Within the all-male pilgrimage groups, men are regendered. Q'eqchi' Maya organize their ritual officers in three pairs, moving from the "first," or *xbenil,* to the "sixth," or *xwaquil.* The first and second officers are the paired senior officers, often referred to as *principales* in the literature. Within the pair, the junior, second, officer is female in relation to the first, the *xbenil.* In the next pair, the junior, fourth is considered female to the senior third. Within the final pair, the sixth couple is considered female in relation to the fifth, officer, couple. When the men enter the cave, therefore, to leave the community's offerings and petitions, some do enter as female.

Sacred sites themselves are gendered. Each Tzuultaq'a has its title of lord or lady (*qana'* or *qawa'*). The mythic stories about these personages, particularly those concerning Qana' Iitzam, the only female-marked Tzuultaq'a of the Thirteen, include gendered scenarios of courtship, seduction, and sexuality that often severely transgress sanctioned community practices. The Tzuultaq'a demonstrate gender complementarity as well; each has traits considered both masculine and feminine. This gender complementarity appears in descriptions of the Tzuultaq'a: in dreams, faints, or trances, the beings may appear as men or women. An urn in the Salesian Order's Regional Museum at San Pedro Carchá depicts the Tzuultaq'a with both feminine and masculine features.

The centrality of sexuality as it relates to fertility is also captured in descriptions of the cave's internal spaces. One consultant told Sergio Garza that the stalagmites and stalactites omnipresent in Verapaz caves were gendered as male or female, respectively; when these unite to form a column, fertility has been achieved (Burnett et al. 2002).

We have not noted any difference in the description of the rituals or contents of the offerings left in caves sacred to male as opposed to the single female Tzuultaq'a. However, *manos, metates,* spindle whorls, and other weaving instruments that are closely associated with women are commonly found in caves. Does this indicate that women were present at cave rituals, or did the gender identification of the objects change in their movement from a utilitarian to a ceremonial function? This is certainly possible. Christenson reports (2001:131) that Santiago Atitlán's image of San Juan Carajo has a hollowed-out place within it containing bits of old cotton, twelve needles, and a spindle whorl, which may relate to the creation of the world by weaving. Villa Rojas (1945:71) notes that the sacred breads used in indigenous rituals are prepared and cooked by men. In Zinacantan, when the water holes, normally the domain of women, are ritually cleaned, only men do the work; no women are present (Vogt 1976: 102).

Ethnographers have noted that flowers are usually exclusively women's concern, but flowers are commonly encountered in caves, the domain of men. Spindle whorls and bone needles, parts of a weaving assemblage that is almost emblematic of female status, are regularly found in caves (Brady 1989:264–265, 269–271, 300–303). We would argue that these items are present precisely because of their gender association and the need to unite male and female in all ritual performance.

Conclusions

The ethnographic data presented here have a number of implications for archaeological investigations of precontact indigenous sacred geography. First, ancient Maya sacred geography was probably at least regional in scope, in which any given site was integrated into and functioned within a hierarchical network of sacred landmarks. Thus, the common archaeological practice of investigating individual caves as independent entities ignores the complex social relationships involved in the utilization of the site and that contributed directly to formation of the artifact assemblage. Our observation of modern pilgrimages in both the Q'eqchi' area and at Naj Tunich documents that pilgrimages are not focused exclusively on a single important site. Rather, a number of stops are made along a pilgrimage circuit. Thus, pilgrimage activity plays a role in the deposition of cul-

tural material even at sites that are not important or impressive enough to have been the central focus of a pilgrimage cult. Furthermore, even the highly localized sacred sites may have religious and political significance to many peoples resident in the region.

While archaeologists have only begun to study caves, we are suggesting that the field of study must be amplified. Although caves are the best example of the sacred landmark, they are by no means the only one. The problem for the archaeologist is recognizing the less-visible types of sites, such as overhangs, niches, and altars, which can provide a fuller reconstruction of prehistoric sacred geography.

The implications are not limited to the study of religion. Archaeologists have had a long-standing interest in discovering economically important trade routes and political boundaries. As we have noted, shrines and altars are often located along roads and crossroads, so the detection and mapping of these less-imposing sacred features may help define economically important features in the landscape.

Archaeologists too frequently harbor very simplistic notions of religion and ritual as narrowly focused on spiritual matters of little importance. In emphasizing the performative aspect of sacred sites such as caves, we are drawing attention to the fact that the Tzuultaq'a are places where people create community and extra-community political, economic, and spiritual relationships. For archaeologists interested in political boundaries, we have shown that, in the absence of clear markers, these frontiers are defined, negotiated, redefined, and celebrated in ritual. Thus, the political evidence that an investigator seeks is apt to be found in ritual deposits rather than in any overtly political remains.

While the material culture used in the modern rituals is more meager and less elaborate than that recovered from archaeological contexts, the pattern of acquisition of ritual paraphernalia provides an interesting model to be tested against ancient practices. Q'eqchi pilgrims regard certain categories of items as more appropriately acquired near the pilgrimage destination rather than as items brought from home. The economic implications of such a belief should be immediately apparent. The greater the pilgrimage visitation, the larger the volume of material purchased locally and, therefore, the greater the economic impact on the resident population. If pilgrims had brought goods from home to trade for the necessary ritual items, the patterns of circulation and deposition would be the reverse of what one might suspect. Foreign goods would enter the market and be exchanged for items of local manufacture that would be used in ritual. A pilgrimage cave might, therefore, have a very homogeneous artifact assemblage produced from local raw materials. Foreign goods, on the other hand, would tend to enter the market, circulate through the society, and be deposited in contexts not directly associated with the pilgrimage location itself.

The ethnographic model presented here, it is important to note, raises the possibility of relating the gendered ritual practices of contemporary rural Q'eqchi' Maya to the material record of earlier Maya ritual. One clear gain would be a much fuller picture of all actors—male and female—involved in ritual activity.

The gendered ideologies centered around the Tzuultaq'a and their role in anchoring the metaphors of fertility are also instructive for the archaeological record. For example, we support Martínez Marín's (1972) observation that Pre-Hispanic pilgrimage centers tended to be dedicated to rain and water deities. In examining the thirteen most important sacred mountains/caves in the Q'eqchi' area, we noted the strong association with water and with rainmaking—and with the identification of the female with water sources.

We caution care in drawing analogies based on the practices of contemporary subsistence farmers operating within a postcolonial, late-capitalist landscape of Highland Guatemala about ancient Maya practice. However, the gendered nature of rural Q'eqchi' Maya worship can inform analysis of how commoners in the ancient Maya world organized ritual.

Finally, we note the highly regenerative aspect of the Maya sacred landscape. Sites where practices were terminated by either force or abandonment are now being renewed, and new sites are being brought into worship circuits and social networks. The resiliency of contemporary Maya spirituality and its material manifestations is critical in understanding and excavating the centuries of Maya landscape use.

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CHAPTER 13

A Lacandon Religious Ritual in the Cave of the God Tsibaná at the Holy Lake of Mensabok in the Rainforest of Chiapas

JAROSLAW THEODORE PETRYSHYN
TRANSLATED AND EDITED BY PIERRE ROBERT COLAS

Translator's Foreword

This chapter presents for the first time in English an article by Jaroslaw Petryshyn, "Ein Lakandonischer Gottesdienst in der Höhle des Gottes Tsibaná am Heiligen See von Mensabok in den Tropischen Urwäldern von Chiapas," originally published by the Archiv für Völkerkunde in Vienna (Petryshyn 1968a).[1] I have translated the text from the German, but I have edited it substantially. A section discussing Petryshyn's plans for a larger ethnographic project has been dropped as irrelevant because it was never completed. Other sections have been expanded with excerpts from a number of Petryshyn's unpublished articles that relate to caves, religion, and mythology among the Lacandon. The sources of these excerpts are indicated in the notes. I have also augmented Petryshyn's discussion of certain points with data from other ethnographic sources on the Lacandon. In this way, Petryshyn's original article was used as a vehicle for bringing together the meager data on Lacandon cave use. Much of this information is drawn from obscure German, French, and Spanish sources, so the article is a particularly valuable synthesis for English-language readers. All of my additions have been highlighted or inserted as notes. Petryshyn's single footnote has been incorporated parenthetically into the text.
—P. R. C.

Introduction

This article focuses on a cave pilgrimage in the Lacandon area. The Lacandon live in the forests of eastern Chiapas and western portions of the Petén in Guatemala.[2] The Lacandon call themselves Hach Winik (literally, Real, or

True, or Very People) in their own tongue, that is to say, in *hash t'aan* (the real, or true, or very language). They constitute one of many Maya groups. To outsiders the Hach Winik have been described as Caribs, Lacandon, Lacantun, and Maséwal, Masséwal, etc. (Petryshyn 1973b:272a). The word *Lacandon* seems to be the one preferred by most writers and familiar to most readers of anthropological literature. This is one of the reasons why the term is also used in this article. As a name, it is first mentioned in reports of Cortez's march to Honduras in 1524 (Squier 1858:556). The term "Lacandon" is itself a distortion. It derives from *lacamtun,* which means "large rock" (Scholes and Roys 1968:40; Villa Rojas 1967:29), *lacantun,* or "stone standard" (Brasseur de Bourbourg 1866:2), or the name of a river in the rain forest of Chiapas known as Lacantun (Sapper 1897:258; Seler 1960–1967:3:582). *Lacam tun* (large rock) is believed to be the historical *peñol* or *peñón muy grande* (very large rock, rocky island) of Lake Miramar, Chiapas, presumably historical Laguna del Lacandón found in earlier sources (e.g., Villagutierre Soto-Mayor 1701).[3] However, the Lacandon themselves never accepted this or any other derivation of that name, hence none of these terms have any meaning for them. They regard themselves as the real people, Hach Winik.

Only a few scientists have devoted attention to questions regarding the religious role of caves in the Lacandon area. This kind of contribution, while making some observations regarding findings in caves, the appearance of caves, and remarks made by the native people, can be regarded as only partially empirical because of the authors' failure ever to attend an actual Lacandon cave ceremony. For whatever reason, cave ceremonies are rarely mentioned in the anthropological literature. The author, while conducting research on mythology among the Lacandon of Nahá during an expedition in 1968, became the first to report in the scientific literature a Lacandon religious ritual in a cave.[4]

The Lacandon Pantheon

The pantheon of the Lacandon of Nahá is represented by thirty-six deities. The entire universe directed by these deities can be divided into three parts: the sky, the earth, and the underworld. There are thirteen gods of the sky, fourteen of the earth, and nine of the underworld. Each god has a wife, except Kianthó, the most important god of the earth. He has two wives. Naming a goddess, the Lacandon of Nahá simply use the word *aknail,* adding to this the name of the goddess' husband. The residents of Nahá know only two goddesses by their true names. The relation of the gods with each other is friendly, or as the people of Nahá say in their language, "*imbohó.*" The gods meet each other as friends, relatives, or family members. They talk, eat, drink, and smoke cigars in mutual

fellowship, and their personal relationships manifest attitudes of positiveness, benevolence, friendship, hospitality, and joviality.[5]

The Hach Winik are organized into patrilineal clans called *onen*.[6] Each *onen* consists of an animal name and another, unspecified, name. In discussing *onen,* the Hach Winik mention only the first part of a combined clan name. Only after further conversation do they provide the complete name. The people at Nahá are divided into two clans: Ma(a)sh-Kásyaho, and K'ek'en-Kóho. Like the people, the majority of the gods in the Hach Winik pantheon also belong to these two clans. The gods living in caves around the lake—Mensabok, Itsanohk'uh, and Tsibaná—are all terrestrial deities. Mensabok and Itsanohk'uh belong to the *onen* K'ek'en-Kóho, while Tsibaná belongs to *ut supra.*

The Lacandon pray to their gods mainly in their own temples, which are of great simplicity and consist only of a palm-leaf roof on posts without any walls.[7] Normally, just one person uses those temples. In the case of the temple visited by the author, Mateo Tschankín and Tschankín's son-in-law, called Antonio, who all lived close to each other, shared the temple. Several distinct offerings are displayed in there. Most common is copal (*pom;* Yucatec: *pom*) and, during special occurrences, the alcoholic beverage *balché,* which is produced from ritually stamped sugarcane, water, and the bark of the *balché* tree through a twenty-four-hour fermentation process. The *balché* is placed in front of the temple in two canoes.

Besides temples there are two other types of places of worship (meaning individual residences of gods) to which the Nahá Indians make pilgrimages: the ancient Maya ruins, which are interspersed throughout the tropical jungles; and a few caves found on the edges of lagoons, where the Lacandon of Nahá worship.[8] Caves were regarded as being sacred[9] and were thus the most secretly kept sites.[10] They were further thought to be the work and the residence of the Lacandon's native gods[11] and were actually regarded by the Lacandon as natural temples for the gods.[12]

One typical cave in which the author witnessed a worship ceremony will be closely analyzed. The cave described here is named after the god Tsibaná. His name means "draughtsman of houses" or "housepainter." Bruce (1965) regards this god as the god of the Arts. According to Tschankín of Nahá, Tsibaná was the god of house painting and monuments.[13] Under his auspices, the houses of the gods Mensabok and K'ak' were constructed. According to Tschankín's verbal account, Tsibaná is consulted during heavy rainfalls, which can devastate agricultural fields (*kóor;* Yucatec: *kol*), and is prayed to for beneficial weather for the cornfields. He resides in a cave at a lagoon of the same name. However, Tsibaná is less important than Mensabok.

The god Mensabok, whose full name is K'ak' Mensabok, probably would be translated as "fire-producer of soot."[14] He is mainly associated with hunt-

ing with the traditional bow and arrow. Praying to Mensabok means success in killing deer and eating them, as well as the killing of jaguars, which are not consumed. Mensabok also brings success in hunting for pheasant, puma, and wild boar. Mensabok has a cave residence on the lagoon that bears his name.

The Pilgrimage

After a long stay in the Lacandon area, we succeeded in winning the natives' confidence and, as a result, we were finally invited to a cave ritual. The cave is located on the shore of the holy Lake Mensabok, in the tropical jungles of Chiapas. The lake's name is derived from three lakes or lagoons that are connected through channel-like waterways. One of these is named after the god Mensabok, another, located to the southeast, after Tsibaná, and a third, located even more to the southeast, is called K'ak'. The lagoon of Tsibaná, where the cave bearing the same name is located, is at 17°2'N and 90°29'W, and is situated to the west of the Usumacinta River.

The ceremony was observed in the middle of March 1968. A small group of pilgrims of the settlement Nahá, located southwest of the holy lake, began their journey at six o'clock in the morning. The group consisted of the following persons: Enrique (Jorge's son); his younger brother K'imboy; Manuel, a Tzeltal-Maya from the neighboring Tzeltal settlement called La Colonia Lacandona; and the author. The latter [Manuel] walked in front of his fully loaded mule (*tsimín;* Yucatec: *thultimín*) and ahead of the author. Manuel accompanied the pilgrimage, but did not take part in the ceremony, which will be explained later.

Enrique and K'imboy both carried modern rifles (*ts'on;* Yucatec: *dz'on*) hauled on their backs and loaded nets (*baay;* Yucatec: *baay*), which were attached by strips of fiber to their foreheads. In these nets they carried the cult paraphernalia and native provisions. The boy, K'imboy, carried a bow (*tschurúr;* Yucatec: *tschulul*) and a dart (*chrr;* Yucatec: *halal, hul*) with an end made out of wood, with which he wanted to shoot some small, colorful birds, whose skin he wanted to give to his mother. All married Lacandon women carry these bird skins; they hang from their hair, which is bound at the neck. Usually the bird skins are taken from macaws (*mo;* Yucatec: *moo;* Spanish: *guacamaya*), *pito real* (*achpan* or *pan;* Yucatec: *ahpam* or *hpam,* a type of toucan), or other small birds. A fine-looking collection of such bird skins is located in the museum at Na Bolom. The Museum für Völkerkunde in Vienna is also in possession of some examples. K'imboy's dart and bow, which he donated to the author, are located today at the Museum für Völkerkunde in Vienna. For more regarding the classifications of Lacandon darts, see Sapper (1897).

The two Lacandon both had leather bags, which traditionally hang from the

right shoulder. Enrique's bag (*poschá*) is of the modern variety, which can be bought at stores in San Cristóbal or Tenosique. K'imboy's bag (*hatschposchá*), however, was made according to the old Lacandon way from the skin of a young deer (*yuk;* Yucatec: *yuk*). Quite often, Enrique smoked a large, very good smelling Lacandon cigar (*hatschk'uts*), whereas K'imboy was satisfied with a modern cigar (*hunik'uts*). All members of the group carried machetes (*maská;* Yucatec: *maskáb*) in their right hands.

For twelve hours we wandered through the thick bush, often chopping with machetes, and passing the time talking and joking, all the while having surprising adventures. Finally, we reached Pepe Tschankín's field (*kóor*) at the holy lake of Mensabok. We had a healing sleep in hammocks (sing. *k'an;* Yucatec: *k'an*) on the floor of the unwalled field hut, roofed with palm leaves.

The next morning the pilgrims, guided by Tschankín, traveled in two canoes (sing. *tschem;* Yucatec: *tschem*) to the cave where they worship the gods Mensabok, Tsibaná, and K'ak'. After the ceremonies in the three caves were observed, they were carefully recorded and compared. As a result of this comparison, it was deemed that the ceremonies in all three caves were similar. Since rituals conducted in the three different caves, for different deities, do not seem to differ in their execution, they were all are deemed as being of the same type. Hence, only one cave ritual is presented as an explanation of all three ceremonies observed around Lake Mensabok. The cave presented in this account is the one identified as being utilized for the worship of Tsibaná.

The cave of the god Tsibaná can be entered only from the lagoon. Coming from the lake into a small bay, the pilgrims left their canoes in front of a very high and steep rock slope that reached far into the lake. Atop the slope a cleft was barely visible, appearing from far away to be a shadow. We reached this cleft after a short but exhausting climb, and it turned out to be the entrance into the holy cave of the god Tsibaná.

The Lacandon choose such remote places of worship in order to hide them from foreigners. The Tzeltal-Maya, Manuel, who accompanied the pilgrims to Mensabok and helped them throughout the trip, was neither invited to come to the caves nor did he try to participate. He stayed in Pepe Tschankín's field hut, because he knew of the Lacandon's reservations concerning outsiders participating in cave ceremonies.

As part of worshipping the cave god, the Lacandon utilized a sacrifice censer, which is always a bowl that also represents a god.[15] I have observed that these censers all portray god K'ak', who is identified in the Nahá region as having a long neck. All the other heads depicted on the censers are unidentifiable to anyone except the person who made them.[16] During the ceremony in the cave, it was made clear why foreigners are not allowed to observe or participate. Such foreigners might be regarded as evil by the gods or could be seen as having a

bad influence upon the gods. Among the Lacandon, it is thought that the unsanctioned presence of foreigners in a place of worship could cause earthquakes, death, or other catastrophes.

On a rise in the lower section of the cave, below the entrance, I observed several human skulls that were not deformed and that were lined up along the left side of the wall.[17] The lack of skull deformation is one of the many pieces of evidence that they were deposited in the cave in modern times.

Next to the skulls lay a number of censers, many of which were broken, and which did not seem to be arranged in any pattern. The word for censer, *wlakilkuh* (*u-lak-il-kuh*), literally translates as "the god, his pot" (one could translate this as "holy vase" or, considering its function, "censer"). In addition, there were a number of square boards with handles *schikar** (sing. *schikár*), upon which rested balls of copal, which had been placed there before the ceremony.[18] Fragments of several previous offerings were observed scattered across the floor, which was covered with snakelike roots from trees coming from the cave entrance. [*In the ruined temples visited by foreigners, where many visitors go, *schikar* cannot be found anymore; they have been stolen. The Lacandon complain about this. The existence of boards within the cave emphasizes the point that foreigners never visit the cave; the holy lake is navigated only by the Lacandon.]

In the left corner, the highest area in the cave, stood part of a large censer covered with burnt copal. This censer represented the god Tsibaná.[19] The right corner of the cave stretched far into the back of the room, narrowing into the dark, which, according to the Lacandon, leads into the deep rock. The mysterious atmosphere of the cave was reinforced by the darkness and the soot-covered walls.[20] The whole cave appeared to be a long, irregular room.

Right after entering the cave, Pepe Tschankín and K'imboy crouched against the right wall, where they remained for the duration. The celebrant, Enrique, descended into the cave in order to carefully choose one of the *schikár* copal boards from a large pile. He put the chosen board on the floor in front of him. Having done this he unpacked from his *baay* a bowl that was wrapped in banana leaves and filled with copal. He then started his soft and conversational prayer, which transformed into modulated singing until then unknown to the Western world. While doing this he formed with the fingers of his right hand small balls of copal and set them in ordered rows on the board.[21]

After completing the *schikár* ritual, he approached Tsibaná's censer[22] and put a few balls of copal on the layers of burnt resin residues that completely covered the holy sacrifice bowl except for the modeled godhead. He then set fire to the copal and periodically throughout the ceremony would add one or two balls of copal. When the holy fire got stronger it lighted the entire chamber, so that one could see the room's size clearly.

Meanwhile, Enrique was singing. He prayed to Tsibaná. In his prayer, in

which the god was addressed as father, he mentioned several times the sacrifice that he celebrated through his poetical and ceremonial songs. He asked the god to look at his sacrifice and accept it. In doing this, he asked Tsibaná to protect the cornfield from bad (too heavy) rainfalls,[23] which could devastate it, and to protect the cornfield throughout the years in order that he (the celebrator) could bring his harvest to the god. Quite often, Enrique moved a ritually wrapped palm leaf above the holy fire. The leaf and other paraphernalia were left in the cave after the ceremony.

The faces of the Lacandon participants during the ceremony looked very opaque and dejected, one could almost say frightened. Leaving the cave, however, they were impartial and friendly. This strange behavior was later explained during a conversation while rowing on the lake. It is the Lacandon belief, already mentioned, that the presence of strangers (also women;[24] see Blom and Duby 1955:350) during a cave ceremony could cause earthquakes or other bad luck, even death, if these individuals were judged by the gods as bad. However, as nothing negative had happened so far, Pepe Tschankín, Enrique, and K'imboy were happy, smiling, and satisfied.

The wind played with the Lacandon's thick, long, dark hair and loose *tunikas* [tunics] while the pilgrims rowed back in their canoes on the high waves, in which fragments of the sky and the surrounding landscape were vividly reflected.

Summary

1. This article represents the first eyewitness account of a cave ceremony in the Lacandon area.
2. It should especially be emphasized and confirmed that the holy caves, to which the living Nahá Indians conduct pilgrimages, are
   (a) carefully selected by the Lacandon by using their own certain criteria;
   (b) kept secret as such;
   (c) the individual residences of gods;
   (d) places of worship and devotion;
   (e) used as places of sacrifice; and
   (f) used as burial places (bone houses).
3. The scientific results concerning the role of the contemporary Lacandon holy caves generally correspond with J. Eric S. Thompson's (1959) results of his own research in Yucatán and British Honduras as well as those of authors concerning other parts of the Maya area, even though some local derivations of the culture are visible.

Acknowledgments

The author thanks doña Gertrude Duby of Na Bolom for the personal introduction into the Lacandon settlement Nahá. She further allowed the author to use her invaluable Lacandon library, located in her house, as well as the special collection of manuscripts. For these and similar kindnesses the author experienced during the last years thanks go to the whole Na Bolom (Jaguar House), especially to its owner.

Translator's Notes

1. Permission to produce this translation was kindly given by Dr. Peter Kann of the Museum für Völkerkunde, Vienna.

2. This section is excerpted from Petryshyn (1973b).

3. Of the island in Lake Miramar, Boremanse (1993:325) says, "This island was pillaged by the Spanish in 1559 and again in 1586. Finally, 'El Lacandón' became the name of the entire region as well as the name of the tribes in that region. The term has come to describe roughly any group of nondominated Indians living in the forests of Chiapas and Petén." Stuart (1996) identifies the Classic Maya name for stela as *lacamtun,* "big stone" or "banner stone." The name Lacandon, therefore, has an old root; however, it was connected to ancient monuments and was most likely never connected to people.

4. Petryshyn may be correct in this in that the Lacandon appear to be reluctant to show these sites to outsiders. After Tozzer accompanied a pilgrimage to the cave-home of the god Icananohqu on Lake Petha, he stated, "The writer was not allowed to land from the canoe, nor were any of the family other than the father and the eldest son, who carried out the ceremony" (Tozzer 1907:149). McGee (1990:58) states, "One final class of ritually important sites are cave shrines. Although there are apparently several such sites, I have been allowed to visit only one that is situated in a rock overhang on the shore of Lake Itsanok'uh near the community of Mensabak." Blom and Duby (1955:440) relate, "A young Tojolabal did not know the way to the cave, or—as we suspect—was afraid of showing us the cave."

The Lacandon reticence to take outsiders to caves may reflect an older Maya pattern that was more generally observed. At the end of the nineteenth century, Sapper (1897:282f.) noted that there were only a very few people who ever entered caves. He (1897: 283) states that he was never actually able to see anybody entering a cave. It was only from other persons that he learned that people conducting cave ceremonies had to practice sexual abstinence for forty days and pray for three days prior to entering a cave.

5. Material from this section is taken from Petryshyn (1968b).

6. Material from this section is drawn from Petryshyn (1973a).

7. When Tozzer conducted fieldwork among the Lacandon during the first years of the twentieth century, secrecy surrounded the godhouses. He noted (1907:92), "Great secrecy and privacy in regard to the rites inside the sacred hut, together with its contents, are carefully observed. In many settlements this hut is surrounded by a screen of palm leaves to protect it from the prying eyes of the occasional Mexican visitor. Sometimes

when there are important rites in progress all of the trails leading to the settlement are stopped up with underbrush. Any attempt at approach to the sacred enclosure is absolutely denied to outsiders."

8. In another publication, Petryshyn (1973b:272a) describes the important places of worship: "These places include the palm-thatched temples of today, holy ruins of the ancient Mayas, and the sacred caves, which are the most secret sites. The ruins and the caves are believed to be the work and the residences of the native gods." Boremanse (1998:27) states, "The Hach Winik visualize the form of residence of the earth and celestial deities as a mere reflection of their own. Once the gods lived on earth. The earthly gods dwelled in caves inside the cliffs that are commonly found on the shores of the lakes . . . When they 'died' (i.e., pretended to die) the deities . . . went beneath the surface of the ground. Their spirits, however, continue to occupy these shrines."

9. Sapper (1897:283) found that this practice was widely distributed at the end of the nineteenth century: "In the Alta Verapaz the religious ritual was most likely held by the Indians in caves because many ceramic effigies are found in caves. Even in times of religious-political turmoil, as in the year 1885, the Indians still conduct religious rituals in caves, offering flowers and the like . . . Also in the Highlands of Chiapas, among the Tzotziles and the Tzentales, caves seem to function as locations of religious rituals. At least, ceramic effigies can be found in those caves, which are still objects of veneration among those Indians."

10. Jacques Soustelle (1937:53) notes building activity inside a cave and remarks on the entrance's being "closed in part by a wall of stones of small and regular size, stacked without cement" [cette ouverture est en partie fermée par un mur de pierres de petites dimensions, régulières, superposées sans ciment]. He mentions, however, that the wall is ancient, and the Lacandon ascribe its construction to the sun (Soustelle 1937:53).

11. Jacques Soustelle reports (1937:52) that "to this should be added that the Lacandon of San Quentín regard this cave (and the ones I will be talking about) as the night residence of the sun" [Il faut ajouter à cela que les Lacandons de San Quentín considèrent cette caverne (et celles dont je vais parler tout à l'heure) comme l'habitat nocturne du soleil]. Georgette Soustelle (1961:43) gives much the same information and stresses the great importance of the cave for the people around San Quentín. Duby and Blom (1969:292) state, "Numbering 34 in 1946, the group had a priest, ceremonial huts, and censers, and, in spite of poor soil for farming, lived at Sökrum (white earth) for religious reasons—to be near the cave where K'in, their main god, disappears at night to make the trip under the world." Jacques Soustelle (1937:51) makes a case that many of the ceramics found in the cave bear sun images. He (1937:53) further notes that neither the ceramics nor the walls can be ascribed to today's Lacandon. They, rather, regard the caves as sacred living places of their gods [pour eux les cavernes, grottes, abris sous roche, sont presque toujours des lieux sacrés habités par des dieux (le soleil, *Metsabok, Itsanok'u*)]. For them the caves and rockshelters are even today sacred places inhabited by their gods.

12. In another publication, Petryshyn (1968a; my emphasis) mentions that this cave was regarded as the temple for Tsibaná: "The Lacandon also pray in the ancient Maya ruins [and] in the cave (*temple*) of Tsibaná" [Los Lacandones rezan también en las ruinas antiguas mayas [y] en la cueva (*templo*) de Tsibaná]. This appears to be part of a wider pattern pointed out by Thompson (1959:122), who notes "the sixteenth century use in Yucatan of the term *actun* to signify both cave and stone building . . . This appears to support Las Casas' inference that caves and temples were partially interchangeable as scenes for religious rites."

13. According to Cline (1944:Table 1), Tsibaná (whom he calls Tsivana) translates as "house of writing," and the god lives in a cave with paintings. According to Boremanse (1993:328), Ts'ibatnah can be glossed as "paint the houses." McGee provides interesting data that relate to this in his description of the Cave of Mensabok (1990:59): "Also near this site are a series of cliff paintings. Approximately thirty to fifty feet above the lake are a series of simple designs painted in red. Although many designs are unrecognizable, several are clear and depict outlines of hands, a monkey, and a couple of anthropomorphic figures. Also pictured in black (described in Bruce 1968) is a more sophisticated drawing of a serpent, jaws open wide and swallowing some object. When questioned as to who made the drawings, the Lacandon answer that it was the god Ts'ibatnah, 'Painter of Houses.'" Tsibaná's name, then, may be derived from the painted caves which are equated with houses. Boremanse (1998:27) states, "The gods are thought to dwell in huts, as the Lacandon do. To humans the palm leaves of which the roofs of the gods' houses are made look like stones, but the gods see the stone structures and the rocks as thatched huts. Now it is interesting to note that both rocks, especially around the lakes, and the ruined temples are usually found in clusters, not alone. The people therefore believe that their deities live in clusters of households, just as they do; they see in those groups of rocks . . . a model of their own pattern of residence."

14. Mensabok in Yucatec means "*hacedor de polvo negro*" [maker of black powder or soot] (Barrera Vásquez 1980:521) and is derived from the Yucatec word *sabak,* "soot." Cline (1944:113) states that "Metzabok is a santo who lives in a cave on a lake. He makes rain by burning copal, and the smoke turns into rain clouds. Then the Santo makes wind which brings the rain by waving the tail of a big guacamaya (macaw) which he keeps. When the wind comes then there is rain."

15. Jacques Soustelle provides similar information from the 1930s. He notes (1937: 42) that at the time the ceramic type "'a bràs' [was] to be found among the Lacandon . . . They [were] placed in great numbers in the caves of Mensabok at the lake bearing the same name, where these ceramics [had] been left as offerings" ["à bras" se rencontre en usage aujourd'hui chez les Lacandons . . . Il en existe en très grand nombre dans la caverne du dieu Metsabok au bord du lac de même nom, où on les a laisses comme offreandes].

According to Soustelle (1937:41), "This type of censer is characterized by an anthropomorphic representation that is reduced to a simple head with two arms and probably a spinal column [Ce type d'encensoir est charactérisé par le fait que la représentation anthropomorphe n'est pas réduite à une tête, mais comporte deux bras et probablement une colonne vertébrale]. Soustelle emphasizes that the whole anthropomorphic shape of the censer facilitates its active role in rituals.

16. Boremanse (1993:328) describes the censers thus: "The pot has a stylized anthropomorphic head, whose lower lip protrudes like a spout and receives the offerings of ritual food and drink." The censer itself is not the most important part. Boremanse (1993:328) goes on to explain that "when they decide to make an incense-burner for the deities whose home they have come to in order to pray, they take some of these little stones to their home and deposit them at the bottom of the clay pot (*u läki k'uh,* 'the pot of the god'), which serves as a censer . . . From this moment on, the god is present in the temple and humans may communicate with it through the sacred stones (*u kanche' k'uh,* 'the seat of the god') contained in the censer, on top of which they burn copal resin . . . [H]umankind must communicate with them by means of sacred rocks. Without these relics, there could be no communication between humans and deities and the clay pots would be powerless."

17. Boremanse (1993:327–328), who visited the cave of Mensabok in 1974 and 1979, offers this interpretation of the skulls: "Undoubtedly, these were originally burial grounds, although they have been raided and profaned many times since their creation (the Lacandon confirmed that the tombs were profaned and that most of the objects contained in the tombs were stolen by foreigners). Situated at the entrance of the cave is a mound of rocks (*u mukulan,* 'the grave,' 'the tomb'), which quite probably explains the human bones (skulls, jaws, and femurs) scattered about everywhere. In all likelihood, offerings accompanied these remains, but such objects would have since been stolen. Aside from some fragments of pottery, nothing is left of these funeral gifts." McGee (1990:58–59) offers additional details: "Most interestingly, there are skeletal remains of at least four individuals in association with the god pots and bowls. Arranged on the ground between piles of bowls and god pots are four skulls with the flattened forehead cranial deformation common to the Prehispanic Maya, one pelvis, four femurs, two humeri, one fibula, one tibia, and a small assortment of other unidentified bones. The Lacandon say the bones are the remains of gods who at one time took human form. When they returned to the sky they discarded these bodies. Although none of the material at the site has been dated, judging from the number of artifacts piled at the site it has been an important ritual place for a significant length of time." In her description of the same cave in 1943, Gertrude Duby (Blom and Duby 1955:350) mentions the skeletal material on the surface but not the presence of looter's pits, so it seems quite likely that the looting occurred during the second half of the twentieth century. This also suggests that the bones on the surface are not simply material scattered about as a result of looting, but, rather, represent bones that were originally placed on the surface. Speaking of the caves in this area, Blom and Duby (1955:222) mention that "in those caves—many of them unexplored—there are to be found secondary burials or bone deposits and human skeletons, as well as fragments of large vessels of crude manufacture." The photographs of the skulls and bones presented by both Boremanse and McGee do not show either adhering dirt or discoloration, which one would expect of bones that had been buried for centuries. The situation may have been analogous to practices in the Tzeltal area, where "a few generations ago, the most distinguished members of each lineage were buried in the cave" (Villa Rojas 1969:215).

18. Jacques Soustelle (1937:41) also notes, "In a cavern located next to the Lacandon settlement of San Quentín we found the fragments of a censer half full of burned copal" [Dans une caverne située près du campement indigène de San Quentín, nous avons trouvé les débris d'un encensoir à demi plein de copal brûlé].

19. This is an ancient concept with roots dating at least to the Early Classic (Houston and Stuart 1996, 1998). Objects like censers, stelae, and buildings were regarded as living beings with a soul and thus received a proper name. The erection of stelae, in many cases, meant the erection of a ruler or a god (Stuart 1996), the object being the embodiment of a ruler or god.

20. The cave appears to be quite similar to the cave dedicated to Mensabok. Boremanse (1993: 328) says, "Deep inside the rocky interior walls of the cave is a stone altar belonging to a god and a goddess (his spouse), owners of the cave and a nearby lake. The stone representing the god stands taller than the stone of the goddess. It is impossible to distinguish the original shape of the stones, because they are completely covered with soot and the residue left by the burnt copal. The True People burn the incense on the head (*u ho'or*) of the stone, inside a circle of small pebbles glued onto a resinous substance."

21. It appears that the Lacandon believed that the gods descended to the *schikár* to

take this offering. One Lacandon chant records, "The gods pick them (the offerings) up. From how many small caves do they descend and stand on the board. I want you to descend and stand on the board. Surely the wind comes, and the rain comes" Davis (1978: 147).

22. Petryshyn, in fact, states that he approached the god, not the censer: "Nach der Vollendung . . . näherte er sich dem Gott Tsibaná" (Petryshyn 1968a:174). Tozzer (1907: 149) stresses this same point in saying that the "god was supposed to be actually present during the performance of the rite." Here, the object is the embodiment of the god, and the object becomes the god himself. The censer most likely is being awakened to life through the performance of the censing ritual and turns into the god during the ritual. This suggests to me that the many effigies in Classic Maya art used during precession probably represented the gods themselves, who were thus physically present during the rituals.

23. Jacques Soustelle also notes the association of cave pilgrimages and rain. He states that "the objective of the pilgrimages to Lake Mensabok, during which a great number of offerings to the god are left in the cave, is obviously to obtain the rain at a favorable moment" [le but de pèlerinages au lac Matsabok, au cours desquels on dépose dans la caverne du dieu des offrandes extrêment nombreuses, est évidement d'obtenir la pluie au moment favorable (Soustelle 1937: 21).]. The pilgrimages seem to be heavily associated with the agricultural cycle and not so much with underworld deities.

24. In 1943, Duby (Blom and Duby 1955:350) entered the cave of Mensabok alone. On returning to her Lacandon companions she asked,

> "What happened, Enrique? Why did you leave?"
> "Metzabok does not like women entering his house. I was afraid of an earthquake. The whole hill would fall, kill us. Now everything is all right, Metzabok is content, the Lacandon is content."
>
> Duby (Blom and Duby 1955:348) was aware of this general prohibition against women when she had asked to visit the cave: "One day I asked Chank'in at that time if he wouldn't take me to the Sacred Lake [Laguna Sagrada]. It was an audacious proposition, his women did not participate in religious ceremonies, it is not permitted for them to enter the godhouse, and I had the presumption to want to visit the house of a god!"

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CHAPTER 14

Beneath the Yalahau: Emerging Patterns of Ancient Maya Ritual Cave Use from Northern Quintana Roo, Mexico

DOMINIQUE RISSOLO

Introduction

The northernmost reaches of inland Quintana Roo have long escaped archaeological scrutiny. Located between the more celebrated areas of Yucatán and the Caribbean coast, this zone of open savannas and low, forested hills, known as the Yalahau region, has only recently yielded evidence of extensive settlement by the ancient Maya (Figure 14.1). Due in part to the region's inaccessibility and relatively low elevation, it has not been an attractive target for scholarly cave exploration. A rather ambitious, peninsula-wide survey of caves by Reddell (1977) provides barely a glimpse beneath the surface of the Yalahau and is essentially limited to a single, previously reported, and presumably nonarchaeological cave near the community of Nuevo Xcan (Reddell 1977:249). Similarly, the valuable atlas of Maya caves assembled by Bonor Villarejo (1989) does not list any caves for the inland area of Quintana Roo north of Coba. It is likely that the region's high water table (which is thought to be indicative of cave-poor terrain), the absence of massive civic-ceremonial centers (on the order of Chichén Itzá or Coba), and the introverted nature of local *ejidos* have all contributed to the region's archaeological isolation.

In 1993, Fedick and Taube (1995) directed an archaeological reconnaissance of the region. This pilot field season led to the development of the Yalahau Regional Human Ecology Project—a long-term, interdisciplinary research effort focusing on the relationship between the ancient Maya and the environment of northern Quintana Roo. After a few serendipitous visits to local caves in 1993, I became aware of both their frequency within the Yalahau region and their omnipresent signs of human activity. It was clear that a regional archaeological project was no more justified in ignoring caves than in ignoring any number of surface features—be they natural or cultural. At the very least, these caves could provide the project with a more complete view of the region's unique environment.

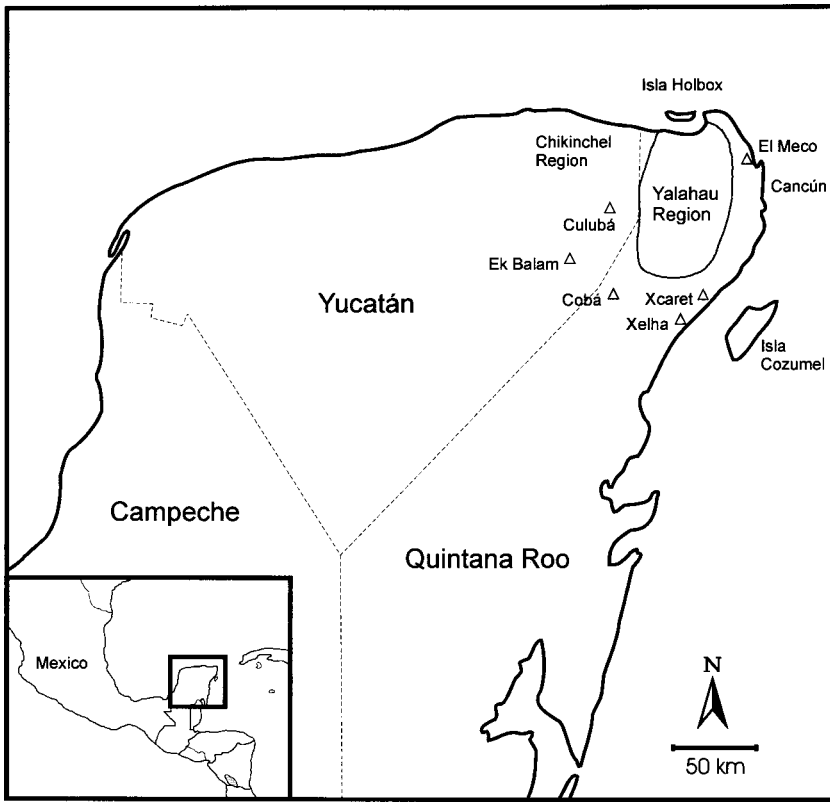

Figure 14.1. The Yalahau region and nearby archaeological sites.

At best, they could offer a wellspring of information concerning the region's prehistory. In cooperation with ongoing surface investigations, the Yalahau Archaeological Cave Survey was initiated in 1995, for the purpose of documenting and evaluating the nature and extent of ancient cave use in the region.

Between 1995 and 1999, twenty caves of archaeological interest were investigated (Figure 14.2). They were located with the assistance of local guides and plotted using a global positioning system (GPS) receiver. Detailed maps and systematic surface collections were produced for eight of the caves in the survey. Due to its size, complexity, and wealth of archaeological material, Actun Toh received additional attention in the form of precise architectural profiles and controlled test excavations. The remaining twelve caves were fully explored, carefully described, sketch mapped, and photographed. Evidence of ancient Maya activity, including deposits of pottery and other artifacts, shrines, architectural features, *haltunes,* modifications of the cave interior, mining, breakage and removal of speleothems, and rock art, was documented in the caves of the Yalahau

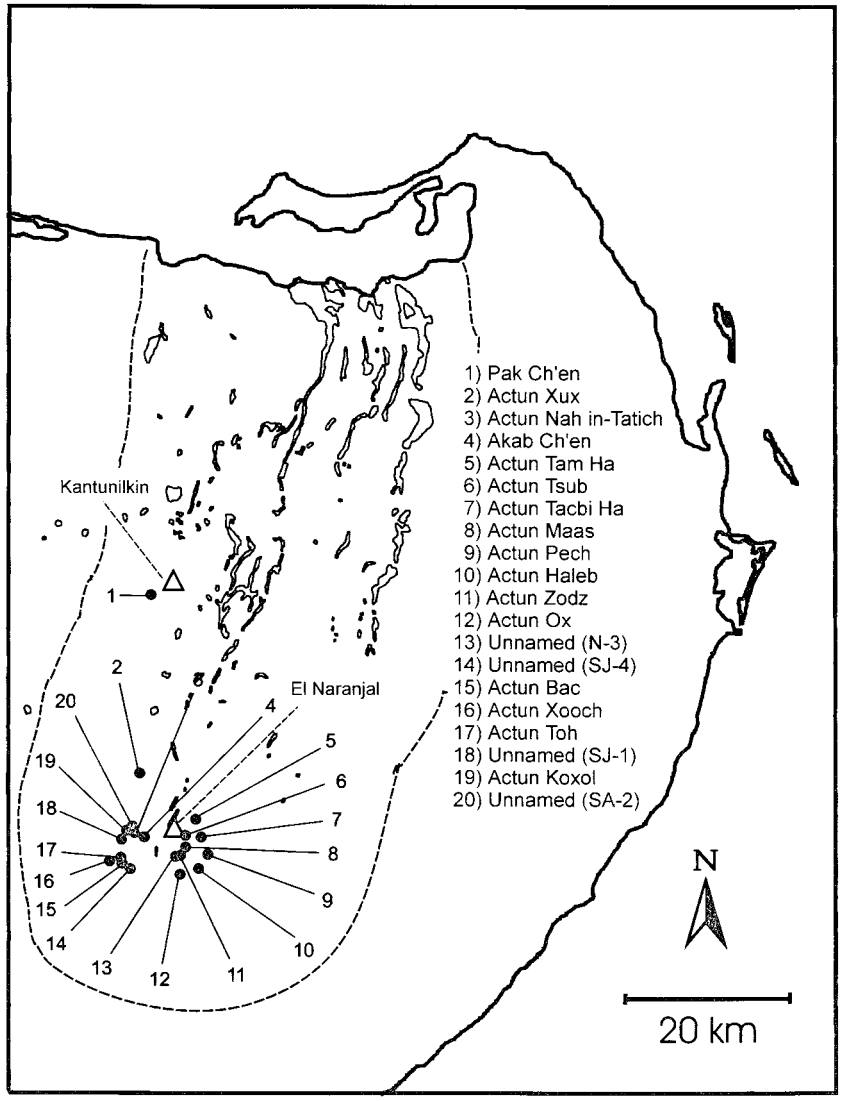

Figure 14.2. Caves of the Yalahau Archaeological Cave Survey. Wetland boundaries are delineated.

region. In addition to caves, all potential surface-water sources encountered during the survey, including wells, *aguadas,* open cenotes, wetlands, *bajos,* and the like, were recorded.

While the Yalahau Archaeological Cave Survey was designed to address a wide range of topics, this chapter concentrates on two separate but related as-

pects of ancient Maya cave use. First, a comparative study of a number of caves in the survey provides insights into the physical and cultural criteria for the selection and appropriation of specific caves for specific purposes. A cave's location relative to surface sites and topographic features as well as its speleological characteristics profoundly influenced its use. This comparative study will attempt to articulate the relationships between caves, surface sites, and natural features to better understand how the Maya conceptualized, transformed, and interacted with caves. The second topic concerns the internal spatial organization of the cave environment. In the Yalahau region, spatial relationships between natural features, artifacts, and cultural modifications within the caves themselves appear to be deliberate and meaningful. By examining such patterns, it is possible to reconstruct the movements of the ancient Maya both to and through the region's caves.

Water and Caves in the Yalahau Region

The occurrence of surface water is rare in the karst terrain of the northern lowlands (see Veni 1990). The rapid and complete infiltration of rainwater across the peninsula is facilitated by the porous limestone stratum, known as *sascab,* which lies beneath the hardened surface caprock (Isphording 1975:244, 246). The cenotes of the northern lowlands often provided the only access to the water table. Morley (1946:12) sums up the implications for archaeological settlement patterns: "In a country devoid of surface water as northern Yucatan, these cenotes were the principal factor in determining the location of the ancient centers of population. Where there was a cenote, there, inevitably, a settlement grew up."

In the Puuc region of western Yucatán, when local *aguadas* and cisterns (*chultunob*) dried up, the Maya were forced to procure drinking water from the many deep caves of the region—often at great effort (Andrews IV 1965; Mercer 1896: 91–94; Stephens 1843:2:98–104; Thompson 1959:124; Zapata Peraza et al. 1991; see also Isphording 1975:246–247). This has seriously affected archaeological thinking about caves and cenotes, which tend to be viewed exclusively as utilitarian water sources.

In the Yalahau region, by contrast, fresh water is abundant and readily available because of the presence of wetlands. This low-elevation area, referred to geologically as the Holbox fracture zone, is characterized by linear depressions and swales which follow an underlying system of horst and graben features within the horizontally bedded Tertiary carbonates (Tulaczyk et al. 1993; Weidie 1982). A highly localized rainfall anomaly has contributed to an unusually thick freshwater aquifer lens (Isphording 1975) and pronounced dissolution activity (Southworth 1985). Consequently, water is available at or near the surface—if

not within the low-lying wetlands, then via the region's numerous small cenotes and ancient wells (Winzler and Fedick 1995; see also Bell 1998). Wells surveyed by Winzler and Fedick (1995) at the site of El Naranjal are as shallow as two meters, and a five hundred–hectare wetland forms the northeastern boundary of the site's architectural core (Fedick and Taube 1995).

Caves are a common occurrence in the upland portions of the Yalahau region. However, access into many of the water-bearing caves is difficult—often requiring the negotiation of vertical drops and long crawlways. It is important to note that these water-bearing caves are neither the only nor the easiest means of water collection in the region. This point is illustrated in the relationship between Actun Pech and its nearby wells. The cave, located four kilometers southeast of El Naranjal, consists of a seven-meter-deep vertical-walled shaft. A long, narrow, horizontal tunnel extends from the bottom of the shaft to a small intermittent pool, sixty-seven meters into the passage. The section of tunnel leading to the pool is littered with pottery, and debris was piled along the walls to facilitate movement through the crawlway. The tiny ephemeral pool appears to have been the final destination of this arduous crawl, as no evidence of cultural activity exists in the fifty-five meters of tunnel which extend beyond the pool—save for the sherds of a cached vessel found in a small niche above and behind the pool.

Approximately six hundred meters from Actun Pech is an ancient well that provides perennial access to the water table. Near this well, we identified a cluster of residential mounds and an additional well. It seems unlikely that the ancient Maya would have ventured into Actun Pech in search of drinking water when it could have been more easily and regularly procured from local wells. Rather, the water collected from Actun Pech and other caves discussed below was likely valued for its remote and sacred origin; as Stone (1995:239) states, "The sanctity of space was proportional to its lack of accessibility." In this respect, the situation in Actun Pech is fundamentally different from that described by Stephens at Bolonchen (1843:2:96–104), where drinking water was collected from the cave when all other means were exhausted. It suggests that the wetlands, open cenotes, and wells that surround caves such as Actun Pech served as the primary sources of drinking water, while the caves may have represented more restricted or sacred environments and were therefore reserved for ceremonial activities.

The importance of this fact cannot be stressed too strongly. Because caves in the Yalahau were not the only, and therefore indispensable, water source, nor even the most accessible, we would not expect evidence of cultural activity to be associated with simple utilitarian water collection. As already noted, archaeologists have tended to focus on caves/cenotes as water sources to the exclusion of all other functions. While it has been pointed out in the ethnographic lit-

erature (Brady 1997:604) that cenotes used for drinking water are also important ritual features, this point seems to have had little impact on archaeological thinking. The removal of the water-source function from the caves of the Yalahau region allows us to separate the ritual function from the utilitarian function. The ritual pattern isolated here allows us to identify the underlying meaning carried by these features. Those insights can then be applied to caves/cenotes throughout the peninsula to provide a more comprehensive appreciation of their multifaceted significance.

This, however, does not necessarily preclude the collection of drinking water from certain caves, which, arguably, could have been a ritualized, albeit routine, activity. Seasonal trips into the cave at Bolonchen, for example, were no casual affair but were marked by ceremonial activities in the nearby village. At the Gruta de Chac, the unique nature of the site was underscored by gender reversals in which men, as opposed to women, did the actual water collection. Stephens (1843:2:16) observed, "We noticed that there were no women, who, throughout Yucatán, are the drawers of water, and always seen around a well, but we were told that no woman ever enters the well of Chaac; all the water for the rancho was procured by the men, which alone indicated that the well was of an extraordinary character."

Although many of the features within the caves of the Yalahau region appear to focus attention on water, there is no reason to assume that the collection of virgin water, as described by Thompson (1975), singularly characterized ancient Maya cave use in the region. It is perhaps more reasonable—and consistent with our increased understanding of Maya cave use—to envision the presence of water in caves as creating a sacred environment (see Brady 1989:415; Brady and Stone 1986:22; see also Brady 1997) in which a range of religious activities was conducted.

The Cultural Context of Caves in the Yalahau Region

The Yalahau Archaeological Cave Survey focused particular attention on the area surrounding the site of El Naranjal and the secondary center of San Cosmé, which are linked by a 3-kilometer-long *sacbe.* These sites and their corresponding plaza groups and rural settlements are located in the southernmost portion of the Yalahau region. The site core of El Naranjal, oriented along a roughly north-south axis, is 1.2 kilometers in length and 0.4 kilometer in width and contains twenty-three major structures (see Fedick and Taube 1995). Studies at El Naranjal suggest that the primary construction episode at the site, as well as its period of greatest occupation, occurred during the Late Preclassic to Early Classic Periods. This chronological assessment is based on the occurrence of early ce-

ramic types, radiocarbon assays of charcoal samples extracted from construction plaster (Mathews 1998), and the presence of the Megalithic architectural style (Mathews 1998; Taube 1995). A number of smaller sites in the southern Yalahau region also exhibit evidence of a strong Late Preclassic/Early Classic occupation (Mathews 1995; Rissolo 1998; Taube 1995). Ceramics dating to the same period were recovered from the Gruta de Xcan (Márquez de González et al. 1982). Located approximately twenty kilometers west of El Naranjal in Yucatán, it is the only reported cave site in the vicinity of the Yalahau survey area. The center of El Naranjal and nearby sites appear to have been abandoned after the Early Classic and reoccupied during the Late Postclassic (Lorenzen 1995, 1999). This later phase is characterized, in part, by the construction of shrines and stairways on the ruined monumental architecture of the site (Lorenzen 1995, 1999).

The examination of caves in concert with regional archaeological investigations of surface sites and features more accurately reveals patterns of cave use and the ways in which the Maya interacted with the landscape. Simply stated, the wider natural and cultural systems within which caves exist provide clues to the nature and meaning of cave activities, the status of the individuals involved, the origin of those individuals, and the period during which those activities took place. Conversely, chronological and functional data recovered from caves can be integral components in the reconstruction of the ancient social, political, economic, and ideological organization of surface sites.

This was amply demonstrated in the investigation of Actun Toh, which is located 7.9 kilometers southwest of El Naranjal (see Figure 14.2). Directly below the entrance shaft of this dome-shaped cave is a 3.6-meter-high, roughly pyramidal terraced structure (Figures 14.3 and 14.4). Although the structure is in an advanced state of disrepair, its well-dressed blocks clearly reflect the Megalithic construction style characteristic of the region's early occupation. The terraced slope of the structure in Actun Toh terminates at a crude altar and artificial floor. One of the pathways that lead away from this floor passes beneath a panel of simple carved faces (Figure 14.5) and down a stairway to a small, debris-filled pool (see Figure 14.6). This pattern will be discussed in greater detail below.

We conducted controlled test excavations in Actun Toh in order to determine the age of the floor. An analysis of the pottery from the deep but apparently homogeneous subfloor construction fill reveals the presence of such Late Preclassic groups as Tancah, Sierra, Nolo, and Xanabá. Protoclassic to Early Classic types include Carolina Bichrome Incised and Sabán Burdo. The fact that the basal riser of the pyramidal structure rests atop the floor, and given the structure's diagnostic stylistic attributes, it is likely that the architectonic modification of the cave occurred during the Early Classic. Additionally, the presence in the subfloor fill of chronologically sensitive types such as Tituc Orange Polychrome

Figure 14.3. Terraced structure in Actun Toh. Photograph by the author.

Figure 14.4. Terraced structure in Actun Toh, frontal view. Photograph by the author.

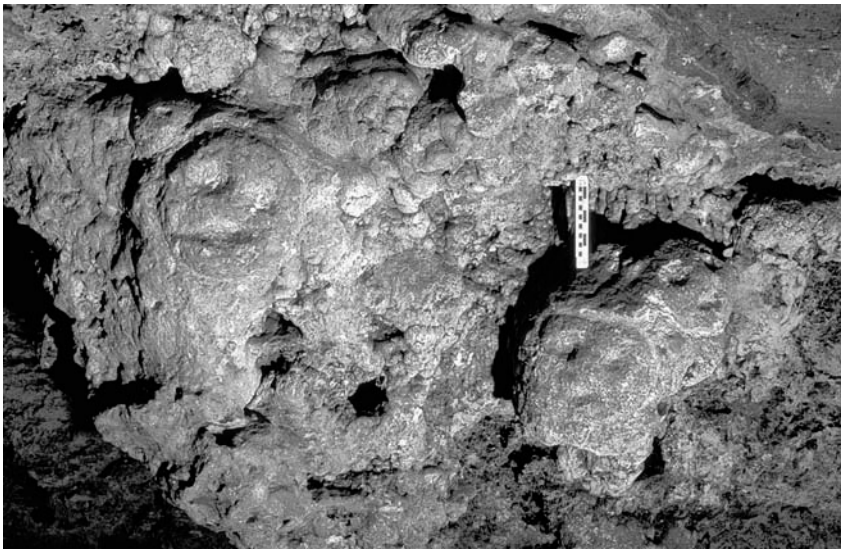

Figure 14.5. Panel of simple carved faces in Actun Toh. Photograph by the author.

and Cetelac Fiber-tempered further restricts the date to the middle part of the Early Classic (ca. AD 450–550; see Ball 1982:108).

Mixed with this later material are sherds from the Dzudzuquil group. Middle Preclassic ceramics are all but absent in the northern portion of the peninsula, including nearby surface sites, but are commonly found on the floors of caves in the Yalahau region. Cave ceramics corresponding to the Nabanche complex (see Andrews V 1988) also include Achiote, Chunhinta, Joventud, and Kin. Their presence provides a unique opportunity to examine not only early cave use, but also the earliest of regional occupations.

Late Classic ceramics have yet to be identified in any significant quantity at surface sites, leading to the proposal that the region experienced a long hiatus (Fedick and Taube 1995:10; see also Mathews 1998:158–168). However, they appear quite frequently in the region's caves. In Actun Toh, we recovered a small but significant quantity of Late Classic Saxché Orange Polychrome sherds as well as numerous Late to Terminal Classic Vista Alegre Striated sherds. A nearly whole, Late Classic, Petkanche Orange Polychrome vase was found in Actun Tacbi Ha, located 1.3 kilometers east of El Naranjal (Rissolo 1995; Figure 14.2). This cave also contained deposits of Terminal Classic Muna Slate and Sacalúm Black-on-slate.

The apparent discrepancy between cave pottery and our current model of regional occupation could be explained if caves, such as Actun Toh, were focal points of ceremonial activity within an area of non-nucleated Late Classic to

Terminal Classic settlement. In other words, Late Classic Period occupation of the southern Yalahau region might be more diffusely expressed across the surface landscape, whereas caves—as religious activity areas—tended to concentrate physical evidence of Classic Period ceremonial behavior. Such evidence underscores the importance of cave data for the reconstruction of surface pat-

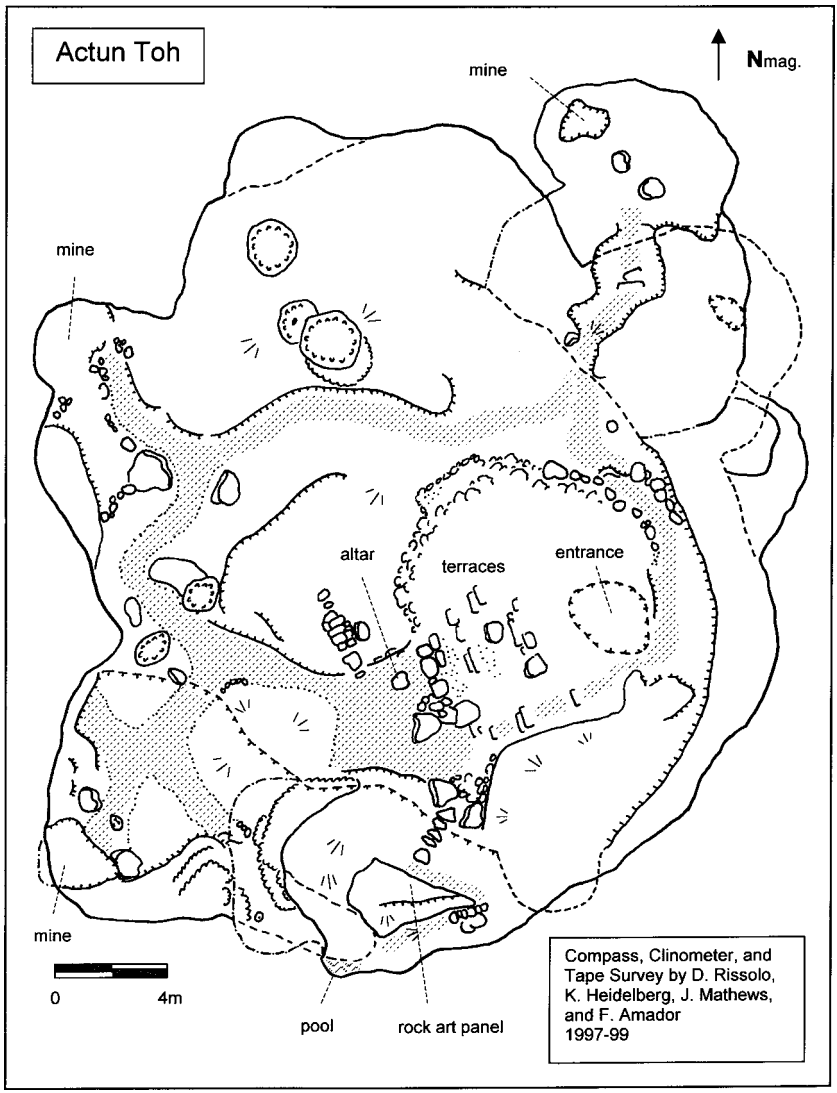

Figure 14.6. Plan map of Actun Toh. Drawn by D. Rissolo, K. Heidelberg, J. Mathews, and F. Amador.

terns, but perhaps more important, it emphasizes the magnetic effect caves have on Maya ceremonial behavior.

Another possibility is that the ceramics could have been deposited by a nonlocal population if the caves functioned as pilgrimage sites for Coba during the Late Classic and/or Terminal Classic. No major ceremonial cave sites have yet been reported near the low-elevation site core of Coba, and it is conceivable that residents of this Classic Period urban center could have traveled thirty-five kilometers northeast toward the Yalahau region in search of suitable caves.

With this in mind, it is apparent that a more complete story of the role of caves in Maya culture cannot be fully realized through archaeological cave investigations alone, and that the archaeology of surface sites cannot be ignored. Suffice it to say that archaeological strategies necessary for the effective investigation of cultural process at surface sites should be carried into the cave environment as well.

Identification of Cultural Criteria for Cave Selection

It is a fact of nature that no two caves are physically identical, yet our use of the term "cave" to subsume all of these features suggests a rather monolithic relationship between the Maya and these subterranean environments. At a certain level, the generalized concept of "cave" is valid and has meaning; however, the Maya were no doubt acutely aware of both the dramatic and the subtle physical attributes of different caves. Moreover, they were likely conscious of the distribution of different "types" of caves across the landscape as well as caves' spatial relationships with local natural and cultural geography.

A common form of cave that develops in the horizontally bedded limestone of northern Quintana Roo is the collapse dome. These caves are characterized by voluminous dome-shaped chambers, the ceilings of which are sometimes breached in the center by narrow shafts leading up to the surface. A cave's opening to the outside not only provides access to its interior, but also functions as a symbolic interface between the subterranean and the terrestrial worlds. Entrances can range from tiny holes barely wide enough to penetrate to gaping chasms. Actun Toh, Actun Tacbi Ha, and Actun Tam Ha exemplify the collapse dome form.

An additional broad, quasi-taxonomic factor to consider, especially in relation to collapse domes, is cave size. Stone (Chapter 10 here) mentions that caves were unique in ancient Mesoamerica in that they offered people exposure to large enclosed spaces, which essentially did not exist in their built environment. This observation has powerful implications in terms of the dramatic contrast between caves and the surface world and the unparalleled sensory effects that

caves must have impressed on those who visited them. There is little doubt that the expansive character of Actun Toh, for example, contributed to its apparent importance. The caves of the Yalahau region are quite small in comparison to the enormous caverns of the southern lowlands or the hills of western Yucatán. However, it is more meaningful to evaluate chamber size in relation to nearby caves so that relative grandeur is measured only within a regional context. Thus, Actun Toh, regardless of its absolute size, must be recognized as one of the grand caverns of the Yalahau region.

The interface between collapse domes and the surface is subtle and misleading in that the small entrances belie the enormity of the open space below. Needless to say, access to such caves was difficult, and the ancient Maya were forced to span large vertical distances with ropes or wooden ladders. Just as buildings can serve as screens to control access to private plazas, challenging and naturally restrictive entrances limit casual interaction with certain caves. Thus, the same desire to conceal space in ceremonial architecture may have motivated the ancient Maya to select and appropriate such caves for restricted use.

Early on, Thompson (1959:122) pointed out the significance of cave access but did not explore the aesthetic and symbolic qualities of cave entrances that appear to reflect (or complement) the Maya perception of space. As he mentions, the importance of restricted access is also evident in the artificial reduction of cave entrances. In Actun Haleb, located 4.5 kilometers southeast of El Naranjal, a crude terrace was constructed at the mouth of the cave that effectively reduced the size of its entrance. Blom and La Farge (1926:156) identified similar modifications in Zapo Cave, as did Seler (1901:162) at Quen Santo and Carot (1989) in the Alta Verapaz. Perhaps small, vertical portals like that of Actun Toh were especially valued for their natural ability to provide a sharp and dramatic transition between physical and ideological realms.

In their discussion of elite activities at Naj Tunich, Brady and Stone (1986: 23) raise a relevant question: Why, if caves were such an important part of ancient Maya worldview, do so few caves exhibit the "formal vocabulary" of elites. They suggest that by invoking the concept of the cave in site architecture, Maya elites did not consider it necessary to venture into the physical cave environment, which thus attributes evidence of extensive and intensive cave use to mostly non-elite individuals. Increased documentation of the relationship between caves and monumental architecture has altered this idea significantly (see Brady 1997; Brady et al. 1997a; Martos López 1997). In the Yalahau region, it is possible that the art, architecture, and offerings found in the caves might very well represent the "formal," or elite, vocabulary of the ancient Maya of northern Quintana Roo. Moreover, the naturally restrictive and culturally restricted access to certain caves suggests their exclusivity.

As in the case of Actun Toh, the presence of relatively sophisticated archi-

tectural modifications and a rich ceramic assemblage are likely a result of the special status ascribed to the cave's physiography. Therefore, it appears that, in this instance, cave geomorphology determined the social aspects of cave utilization, because the cave combined a number of features that were important to the ancient Maya. For example, all three collapse domes share the mound-stairway-pool configuration, which takes advantage of the caves' physical environment. Size cross-culturally connotes grandeur and power, so it is noteworthy that the collapse domes also represented the largest enclosed spaces in the region. Finally, the entrances are naturally restrictive, which contributed to further cultural constraints. For all these reasons, it appears that the elite specifically appropriated collapse domes, with physical and architectural modifications standing as a testimonial to this appropriation.

Rockshelters as Caves

In attempting to study ancient Maya cave use, it is important to mention that the geologic definition of "cave" (or "cenote," for that matter) has little meaning within the context of this discussion and can obfuscate our understanding of the Maya appropriation of underground spaces. Recent ethnolinguistic studies have explored the emic classification of caves and related topographic features (e.g., Brady 1997; Brady and Ashmore 1999; Brown, Chapter 15 here; see also Vogt and Stuart, Chapter 7 here), and it is clear that the Maya concept of "cave" includes a number of features not included in our Western concept. While semantic analyses among the modern Maya are important in steering the direction of research, it remains for archaeologists to document the palpable evidence of underground utilization in order to define the boundaries of the ancient Maya concept of "cave."

At least in archaeology, caves and rockshelters tend to be dichotomized as geologically and functionally different types of sites. Straus (1990:256) says, "A closer look reveals that these two categories [caves and rockshelters] are quite different in terms of their formation and infilling, and that each of them in turn is made up of a wide variety of phenomena." Nevertheless, it must be recognized that the Maya emic classification of these features might be quite different. Unfortunately, the linguistic data from modern Maya groups is not clear on whether rockshelters were consistently classified and used as caves (Brady 1997:603). The Yalahau Archaeological Cave Survey attempted to address this issue directly by investigating five rockshelters within the study area.

We identified architectural features in each of the five rockshelters included in the survey. Actun Xooch, the most intensively modified rockshelter in the survey, is essentially a large sinkhole with a semicircular alcove along its periph-

ery. A crudely terraced slope leads down to the floor of the sinkhole. Extending from the base of the slope is a raised causeway or floor that supports a low offertory platform. This rectangular platform, which consists of two courses of roughly dressed blocks, is connected to the back wall of the alcove and is positioned beneath a narrow shaft leading to the surface. Items found at the base of the offertory platform include a tiny unslipped biconical cup and fragments of a Postclassic Chen Mul censer—including what appear to be modeled ceramic cacao pods. In Actun Maas, a small rockshelter located 2.7 kilometers southeast of El Naranjal, we found censer fragments adjacent to a crude stone altar that was placed beneath a prominent flowstone formation.

Clearly, rockshelters were fully incorporated into a generalized emic concept of "cave"—even in a region where deeper and darker caves exist. Our inclusion of rockshelters in the classification of caves rests not only on the similarities between their material remains and those of cave sites, but also on the recognition of physical similarities between rockshelters and caves. In addition to their shared trait of openings in the earth's surface, both rockshelters and caves contain natural phenomena, particularly speleothems, which do not exist elsewhere in the natural world. In other words, the Maya perceived of rockshelters as having more in common with caves than with other natural features. Furthermore, my data suggest that the ancient Maya did not rely solely on such traits as darkness, complete enclosure, and remoteness to determine whether to appropriate an underground space. However, the naturally extroverted configuration of rockshelters, their smaller size, and their lack of water may have resulted in a more non-elite type of ritual use.

By certain measures, a rockshelter like Actun Maas and a collapse dome like Actun Toh represent opposite ends of a morphological cave continuum in the Yalahau region. The shape of a cave and the way in which it presents itself to the surface are highly variable. Rather than attempt to quantitatively classify or define caves, it seems more reasonable to apply an anthropocentric approach to our evaluation of underground spaces. In doing so, we can appreciate the complex nature of human interaction with these environments.

Be that as it may, the sacredness of a cave was not necessarily determined by its size. The narrow, artificial caves at Utatlan in Highland Guatemala (Brady 1991; Brady and Veni 1992) and the shallow Dzibichen in eastern Yucatán (Stone 1995:74–86) attest to this fact and are considered to be sacred places today. The massive volume of enclosed space characteristic of a number of caves in the Yalahau region may indeed have been a factor in their selection for a particular type of elaboration, but this does not exclude smaller caves from intensive ceremonial use. For example, the shallowest, brightest, driest rockshelter and the deepest, darkest, wettest cavern share powerful ideological associations, regardless of their disparate physiographical characteristics. First and foremost,

both function as "entry points" into the subsurface world (Brady 1997:603). It has been demonstrated that even human-made caves (found in both karstic and nonkarstic regions) belonged to this sacred realm (Brady and Veni 1992; see also Barba P. et al. 1990; Heyden 1975, 1981).

Cave Resources

In addition to a cave's dimensional and locational attributes, the presence of extractable resources was no doubt a factor in both its selection and the nature and degree of its utilization. Paramount among these material criteria was water. The relative abundance of surface water in the Yalahau region notwithstanding, the preoccupation with this scarce resource among the Maya of Yucatán and northern Quintana Roo has left an indelible mark on secular and religious tradition over the course of generations and across the peninsula. The wealth of ethnohistorical and ethnographic evidence that attests to the ubiquity and importance of the cave-dwelling Yucatec rain deities (*chako'ob*) and cave-related fertility ceremonies need not be reviewed here. There is little doubt, however, that the enduring prominence of Chaak in the northern lowlands is likely a result of regional geographic and climatic conditions. Since caves in general are strongly associated with rain and fertility (see Brady 1989:42–53), and the preciousness of water is so heavily emphasized in the northern lowlands, then, clearly, one would expect there to be a special relationship with those caves that contain water.

The signs of human activity present in each of the water-bearing caves in the survey suggest that pools were a major focus of attention. (The spatial relationships between cultural features and pools are discussed in the following section.) The physical dimensions of pools do not appear to have been an important concern of the ancient Maya, and there does not seem to be a correlation between pool size and degree of cultural activity. Even among the modern Maya of the Yalahau region, a cave need only provide access to the water table (via the smallest of pools) in order to be classified as a *ch'e'en* or *ts'ono'ot* (cenote) and to receive the special attention befitting a watery place.

Simply the presence of water in a cave was important, as was the process of its extraction. In addition to leaving behind offerings and rock art, which marked wet caves as sacred spaces, the ancient Maya of the Yalahau were involved in activities that ensured the continued availability of cave water. Surrounding the small pool in Actun Toh is a mound of debris that represents successive pool-maintenance episodes. As rainwater washed into this portion of the cave during heavy storms, the pool became fouled with rocks and soil. The Maya excavated the material (which included pottery sherds) and stacked it around the periph-

ery of the small chamber. This practice has long since been abandoned in Actun Toh, and during the survey project, the pool appeared to be nonexistent (leading to the original assumption that the cave was dry). An archaeological excavation of the accumulated debris revealed the water table below. This practice of ancient cave maintenance was also identified in Pak Ch'en, where the periodic removal of debris continues.

As with the drawing of water from the Gruta de Chac, the maintenance activities noted above might have been highly ritualized affairs, judging from the description of similar activities in Zinacantan. Springs, often located in caves, are vital water sources around which social groups form. Lineages take their name from their water holes, and myths tell how the group received access to the water in exchange for cleaning and caring for the spring (Vogt 1976:99). While water holes are generally the domain of women, the cleaning is done exclusively by men, and no women are present (Vogt 1976:102). The cleaning crews include *mayordomos* and shamans, and musicians play during the work. Bricker (1973:114) has recorded some of the ritual humor that accompanies the cleaning. Once again, the gender inversion noted by both Stephens and Vogt attests to the nonquotidian aspects of water-source maintenance.

In Actun Tsub, a natural aperture in the cave floor reveals a large pool eight meters below. This opening was artificially augmented to facilitate a rope-and-bucket retrieval method. Additionally, a vertical shaft was chipped through the bedrock directly above the enlarged mouth of the well so that people on the surface could easily procure water. Such evidence is a clear indication of the importance of cave water collection—perhaps more so than of broken pottery vessels, whose presence can be explained in other ways.

In addition to the artificial shaft in Actun Tsub, a natural entrance provides access to the cave interior. This arrangement is similar to the cenotes at Telchaquillo and Mani, as illustrated by Brainerd (1958:Maps 9 and 12, respectively). The pools in both cenotes can be accessed from the surface via vertical shafts (marked by collars) or by descending into the cave itself via secondary entrances. Thompson (1975:xxi) provides an ethnographic description that appears to relate to this in noting that "the holy water used in baptism by the Maya of Quintana Roo is fetched from a secluded opening to the town cenote to which women never come." This suggests that some cenotes had both private and public (i.e., sacred and profane) aspects. Redfield and Villa Rojas describe how the pursuit of remote and sacred cave water is the task of men (1934:139), while "the rim of the cenote is a woman's precinct" (1934:70). The drawing of water from different parts of the same cenote or cave may have been the result of gender divisions in Yucatec Maya society. Interestingly, in the ethnographic cases, both women and men used the same water source, but the manner in which the water was collected affected its perceived qualities.

Ancient mounds are located in the immediate vicinity of seven of the eight water-bearing caves in the survey. It appears that such wet caves were important landmarks in the cultural geography of the region and were likely the focus of territorial organization and control. This is well illustrated by an unnamed cave north of Actun Toh whose vertical entrance lies within a small plaza, and Actun Tsub is less than two hundred meters from a major Megalithic building platform at El Naranjal.

A cave need not possess a pool to be a site of water collection. Two of the shallow, dry rockshelters in the survey contain *haltunes,* which were placed beneath the drip line (Figure 14.7). These stone troughs were reported early on by Mercer (1896:Figs. 5, 39) and are quite common in caves across the northern lowlands. Ceramic vessels positioned beneath dripping stalactites have been reported in deeper caves throughout the Maya area (see McNatt 1996:85–86; see also Thompson 1975:xv–xxii). Thompson (1975:xx; see also 1959:125) rightly asserts that such vessels were likely intended to collect virgin water (*zuhuy ha*) for ritual purposes rather than for drinking. He mentions the site of Las Cuevas in Belize (1975:xviii–xix), where the stream outside a cave would have been a more practical source of drinking water than the dripping stalactites located deep within the cave's interior. The availability of noncave water in the Yalahau region presents an analogous situation and serves as an eloquent statement regarding the preciousness of cave water.

The breakage and manipulation of speleothems has received increased attention from archaeologists and is the focus of a detailed review and study by Brady et al. (1997b). Stalactites and stalagmites, which were erected as monuments outside of caves, cached at surface sites, and used in altar construction within caves themselves, were imbued with sacred qualities and likely functioned as portable symbols of the caves' power.

The practice of speleothem removal and breakage was identified in nearly every cave in the survey. Contrary to the findings of Brady et al. (1997b), intensive breakage was recorded both near and far from cave entrances. It should be noted, however, that the caves in the Yalahau region are typically single-chambered affairs, and the entrance is usually visible from all areas of the cave. Nevertheless, a number of caves, such as Actun Tsub, have been almost completely denuded. Soda straws can be seen hanging from the stumps of earlier stalactites, which have since been removed from the cave (Figure 14.8). Quite often, even the smallest of speleothems in the most inaccessible of alcoves has been removed. This latter discovery lends support to the ceremonial value of more remote speleothems suggested by Brady et al. (1997b:727–728).

The most compelling evidence for the sacred nature of speleothems is their inclusion in ceremonial contexts (see Brady et al. 1997b:736–740). At El Naran-

Figure 14.7. Group of three *haltunes* in Actun Xux. Note dripstone formation on lower-left *haltun.* Photograph by the author.

Figure 14.8. Evidence of stalactite breakage and removal in Actun Tsub. Photograph by the author.

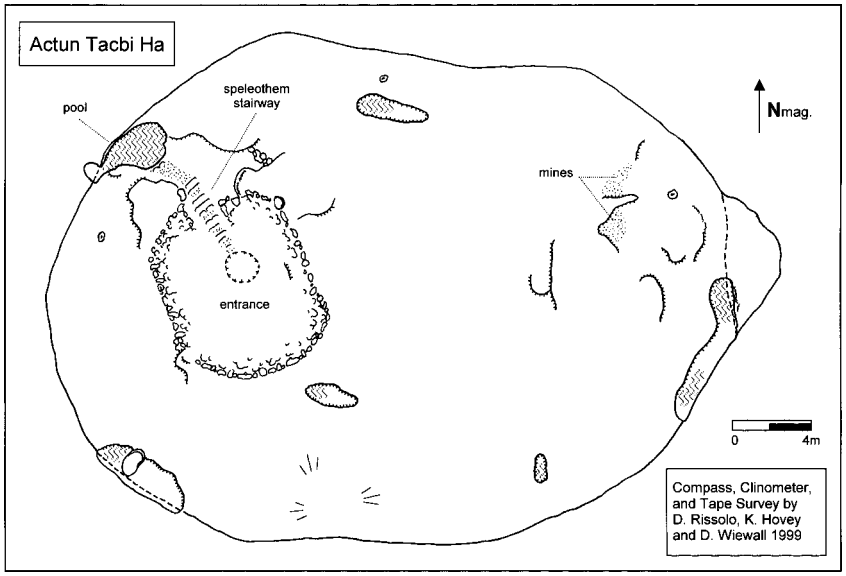

Figure 14.9. Plan Map of Actun Tacbi Ha. Drawn by D. Rissolo, K. Hovey, and D. Wiewall.

jal, a stalactite was found inside a Postclassic shrine (Lorenzen 1995:60), and recent excavations at the site have recovered a number of small speleothems from offertory contexts (Karl James Lorenzen, personal communication, 2000). There is little doubt that additional excavations associated with both civic-ceremonial and domestic structures throughout the region (combined with a watchful eye) will establish the practice of speleothem caching as a common cave-related tradition.

It is unclear whether or not utilitarian activities account for at least some percentage of the speleothems removed from caves in the Yalahau region. Certainly, their apparent "harvesting" from several caves begs for a satisfactory explanation. Even though speleothems represent a finite resource, their use as a source of calcite temper for pottery manufacture (also discussed but not endorsed by Brady et al. 1997b) cannot be entirely ruled out without further investigation. However, the economic need for calcite (in lieu of pedogenic sources) would not explain the massive speleothem fragments lying on the floor of Actun Tacbi Ha. Also of interest in Actun Tacbi Ha (see Figure 14.9) is the use of speleothems for the construction of a stairway in the cave (Rissolo 1995). Such a use, however, should not be considered utilitarian in nature, as the stairway was apparently used for the ritual procurement of water from a small cave pool.

Not all caves in the Yalahau region are (or were) rich in speleothems. Certain rockshelters, such as Actun Maas, would not have been favored speleothem-

gathering sites, and we observed no stalactites or stalagmites (or even evidence of their former presence) in Actun Pech.

Mining, another extractive activity, has been identified at two caves in the Yalahau region. We recorded three mining areas in Actun Toh—each reached by a clearly marked path. The largest of these is an enclosed room, which is separated from the main chamber by a low passage. Interbedded strata of poorly lithified dolomite and more-resistant limestone layers are visible in the walls of the room. The soft, white dolomitic powder was easily mined and removed; the subsequently protruding limestone shelves were broken off and piled along the sides of the room's entrance path. Pits in the floor suggest that the room's expansion was vertical as well as horizontal. It appears that the room itself (measuring roughly four meters in diameter and two meters high) was artificially created by this process. If so, as much as seventeen cubic meters of material was removed.

While it appears that a considerable proportion of the cavities created by mining in Actun Toh are ancient, evidence of more recent mining is clear. Visible on the walls of the largest mining pit are the unmistakable scars of a modern steel pick. When I consulted with my local guide on the matter, he was unable to offer an explanation but simply confirmed the obvious: that if the material was mined and removed for use as *sascab,* the miner would have saved himself trouble and effort by simply making use of one of the many nearby *sascaberas* at the surface. The guide's reaction is equally telling of what an impractical and economically inefficient source for *sascab* the cave might have been in antiquity. A yet-to-be revealed ceremonial use seems a more likely explanation, and perhaps this line of inquiry might be pursued in future research.

By examining activities such as speleothem removal, mining, or water collection from an intraregional perspective, it becomes clear that the ancient Maya ventured into different caves for a variety of reasons. Just as the region's ancient inhabitants were aware of unique ecological zones (e.g., areas of deep or fertile soil, natural *bajos,* well-drained uplands), they were likely knowledgeable about the individual physical characteristics of each cave. To some degree, each cave (as a natural entity) represented a unique place that both intersected and aligned with the system of meanings thrust on it by the ancient Maya.

Spatial Organization of the Cave Environment

I have discussed the importance of pools in caves and have introduced their association with subsurface architectural constructions in the Yalahau region, yet we have not fully explored the patterned spatial relationships between natural and cultural features in caves. In all of the water-bearing caves in the survey, the pools appear to have structured the nature of human activity between the en-

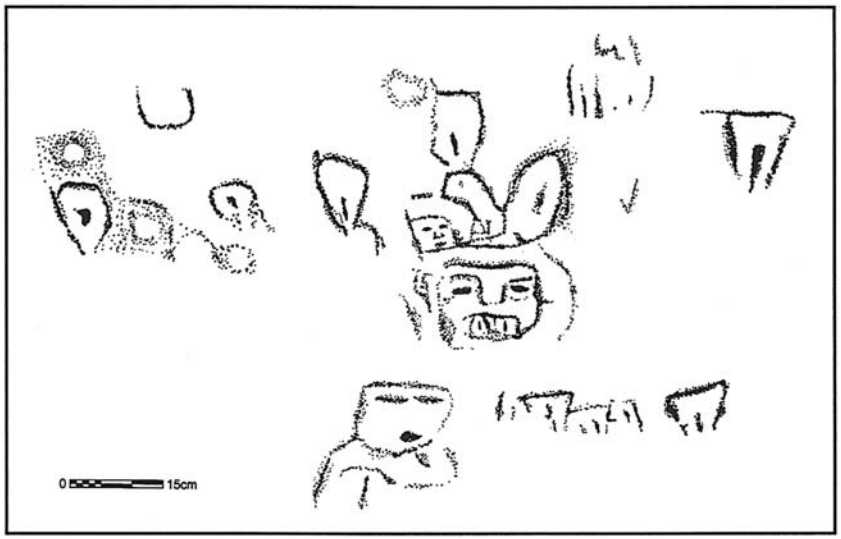

Figure 14.10. Rock art panel in Pak Ch'en containing a rain god image and vulva motifs. Drawn by the author.

trance and the pool itself. Furthermore, the natural layout of caves has directed or channeled human interaction with cave space. This pattern is then reinforced by cultural modifications to cave environments.

If one descends into Actun Toh, a stairway leads down the pyramidal structure and into an enclosed natural room (from which there is a single exit). More short stairways and landings guide the visitor beneath a panel of carved faces and ultimately arrive at the pool. I observed an identical arrangement in Xca'ca' Ch'en, just over the border in Yucatán. Here, a beautifully constructed stairway leads past similar faces and terminates at the entrance to a well, deep within the cave. Such stairways are also present in the cenotes of Mayapán (see Smith 1953; see also Brown, Chapter 15 here) and in caves along the Quintana Roo coast (see Martos López 1994).

Perhaps the most impressive expression of this pattern in the Yalahau region can be found at Pak Ch'en, where a stairway descends into the cave and guides the visitor along an extensive panel of carved images. Located on a boulder adjacent to the path is a profile of a figure that has been identified by Taube as God C. Taube's description of God C (1992:30) suggests that his image in Pak Ch'en may have been intended to designate the cave as a sacred place. Nearby is a figure that appears to exhibit both Chaak and Tlaloc features, which Taube describes as a common Late Postclassic development in rain god imagery (Figure 14.10).

Surrounding this figure are at least nine distinct vulva motifs. The depiction

of female genitalia often appears at rock art sites throughout Mesoamerica (see Apostólides 1987:175–177; Stone 1995:74–86; Strecker 1987; see also Brady 1989:42–53). Rands (1955:343–344) notes that water is conceptually associated with the genital area. The association of rain god imagery with vulva motifs is also found in Dzibichen (Stone 1995:74–86), which contains a similar stairway-pool arrangement. Here, vulva motifs, lightning serpents, and a codex-style depiction of Chaak appear together on the cave wall. In Pak Ch'en, the pathway terminates at a small pool. Located directly above the pool is a strikingly realistic rendering of a vagina, which no doubt marks the spot as a watery, womblike, and fertile place—the sacred epicenter of the cave.

The use of space inside a cave for the purpose of focusing attention on water reflects a degree of specialized effort that supersedes the strictly utilitarian exploitation of this important resource. This is evident not only in the deliberate positioning of stairways and rock art, but also in the creation of relatively sophisticated architectural features. Ceremonial architecture is not uncommon in caves in the Maya area. The platform in Cenote X-Coton (Smith 1953) and the miniature temples in the Cueva de Satachannah (Martos López 1994:77) and Aktun Na Kan (Leira Guillermo and Terrones González 1986) are telling examples of the transposition of ceremonial architecture into the cave environment as well as the very system of meanings attached to such an activity.

A close evaluation of the terraced structure in Actun Toh reveals that it is, in fact, a pyramid. Although it makes use of a natural slope and appears to be pyramidal only from a limited field of view, the mound's terraced façade sufficiently represents the power inherent in such a structure. I would argue that the presence of the pyramid in Actun Toh is significant for two related reasons: first, the structure complements the sanctity of this grand underground chamber; second, it harnesses the potency of the humanly controlled, built environment. In Actun Toh we see the symbolic expression of human authority over the natural environment, just as natural forces are "captured" by the construction of ceremonial architecture (Stone 1992). Perhaps in this conceptual inversion, the cave/temple within the mountain/pyramid becomes the mountain/pyramid within the cave/temple.

I have no doubt that the replication of "cognized spatial models" (Stone, Chapter 10 here) aptly characterizes the positioning of cultural features within caves. The arrangement of structures, pathways, altars, and imagery and the placement of votive offerings in caves of the Yalahau region are noticeably patterned and deliberate. However, I would stress that, because of the physically bounded nature of caves, the imposition or mediation of spatial order is, at some level, categorically different from such ordering at the surface. Irrespective of the generalized concept of "cave" alluded to earlier, caves do not provide their human agents with a clean slate or an empty canvas on which to transcribe cos-

mic order. More so than in the less-bounded spaces of the surface world, the physiography or natural layout of a cave will significantly influence, if not dictate, spatial ordering. The discretionary reading of caves in some way accounts for the architectural alteration of water-bearing caves like Actun Toh but also for the placement of shrines or offerings near prominent speleothems in the region's caves. If, to some degree, function follows form, then the imposition of spatial models as described by Stone (Chapter 10) is no less meaningful or affective, but, rather, more fluid in nature.

Perhaps the ancient Maya perceived an inherent natural order in caves. In other words, the cave may have served as a metaphor for the built environment, just as we believe certain ceremonial buildings functioned as metaphorical caves. This can best be understood in terms of the reciprocal nature of metaphors as described by Houston, which "allows us to resolve such questions by acknowledging the indissoluble, almost playful associations between semantic domains" (1998:355). The semiotics of modern Western speleological terminology can be revealing and provide a structuralist conceptual framework in which to examine the relationships between the ancient Maya and the cave environment. Our lexicon makes use of such architectural terms as "wall," "ceiling," "terrace," "balcony," "column," "shelf," or "alcove" to describe natural cave features. This may reveal an anthropocentric tendency to define space on a human scale, wherein flat places become floors, enclosed spaces become rooms, and constricted spaces become entryways. Furthermore, our use of such terminology is suggestive of an impulse to cognize caves as both otherworldly *and* familiar, or perhaps to reconcile the disparity between realms by finding the familiar *in* the otherworldly. Certainly, the architectural enclosure of natural "rooms," which can be seen in the caves of the Alta Verapaz (Carot 1989), in Actun Balam (Pendergast 1969), and in Naj Tunich (Brady 1989), indicates that such spaces were at least perceived as inherently roomlike in some way.

The question emerges of whether caves represent the order of "community" or the chaos of "wilderness" (Stone 1995:15–18). Stone skillfully negotiates the literature on Mesoamerican sacred geography and attempts to find the placement of caves within binary models of reality. She offers as an example (1995:16) the Yucatecan concepts of *kaah,* "town or inhabited space," and *k'aax,* "forest" (as described by Hanks 1990:306). It would appear that the essentially dichotomous spatial mapping of Maya reality assigns caves to the realm of wild and disordered space.

Stone's evaluation is compelling and well supported ethnographically; nevertheless, I would argue that caves should not necessarily be considered contradictory or antithetical to ordered space, as Stone suggests (1995:16). I have no doubt that caves were, to a significant degree, considered wild places and were subjected to the reactive imposition of spatial models (as described by Stone,

Chapter 10 here). However, the Maya recognition and appropriation of a cave's natural ability to mimic the built environment suggests that the notion of teleologically conceived space coexisted (but was not necessarily congruent) with the perception of cave as wilderness.

I should stress that these interpretations are based on a comparative study in an area that is relatively new to cave archaeology. The proposal of a more flexible model with respect to the conception of cave space is essentially the result of observations conducted in caves within this region.

Conclusions

To better understand the relationship between caves and the ancient Maya, it is necessary to look beyond a single cave and to evaluate a range of natural and cultural features both within caves and across the landscape. Emerging patterns of cave use revealed by research in the Yalahau region underscore the importance of caves as sacred space. This is particularly noteworthy in northern Yucatán, where attention tends to focus on caves/cenotes as utilitarian water sources. The high water-table in the Yalahau region, which allowed shallow natural and artificial wells to replace the cenote as the critical water source, enabled the Yalahau Archaeological Cave Survey to isolate the ritual function of caves and separate it from the function as a water source. The extensive utilization of the caves for ceremonial purposes documents the fundamental ritual importance of these landmarks. The survey's findings suggest that similar patterns of ritual use should be present in caves in other areas as well.

While cave water sources do not appear to have been critical to the maintenance of human life, the Yalahau survey demonstrates that the presence of water in a cave was a matter of paramount importance. Water sources were the focus of ritual activity even where long, arduous crawls were required to reach very modestly sized pools. In some caves, we encountered evidence of regular maintenance, and rock art marked the presence of many of the pools. Thus, the region's ancient inhabitants were clearly intent on locating, marking, and transforming water sources. These findings provide convincing evidence for the cosmological significance of water.

Despite their individual morphologies, all caves appear to have embodied part of a widespread system of cultural meanings. However, research in the Yalahau region appears to demonstrate that natural characteristics such as entrance shape, the presence of water, and cavern size were factors in the selection and appropriation of certain subterranean spaces for particular uses. The size of three of the most voluminous collapse domes in the study area appears to have been one of the principal factors in the selection of these caves for substantial elabo-

ration. Entrance form was clearly significant as well. Narrow, vertical portals like that of Actun Tacbi Ha concealed and controlled entry into these massive chambers.

The investigation of a large number of caves within a single region is important in presenting a range of cave morphologies that provide insights into ancient emic categories. Archaeologists typically make a distinction between caves and rockshelters, but the evidence suggests that the latter were fully integrated into the Maya concept of "cave." All rockshelters we explored contained architectural modifications; several contained censer fragments and evidence of speleothem breakage and removal. While rockshelters functioned as more open and accessible sacred places, the ancient Maya clearly perceived them as caves.

Viewing a large number of caves also suggests new interpretations of the interplay between the subsurface replication of terrestrial domains and the inclusion of caves into the controlled realm of the built environment. Clearly, architectural modifications on the scale of Actun Toh make strong political and social statements about the cave's relative importance and its specialized and restricted use. Perhaps more important, these investigations provide compelling evidence for the conceptual and physical transfiguration of caves into ordered environments.

The Yalahau Archaeological Cave Survey also noted that the Maya were extracting resources from caves. However, the principles of economic efficiency do not adequately fit the cases of cave mining, speleothem extraction, or water drawing to make a plausible case that these were utilitarian activities. Once again, the sacred origin of these objects or materials transcends their physical properties.

The study of caves within their greater regional context, which includes surface sites and all cavelike topographic features, facilitates the identification of such cultural patterning across time and space. Moreover, caves can be exposed as diverse in their physiography and use, yet retain their place in the unifying concept of sacred underground domains. Research in the Yalahau region demonstrates that caves were geographically and ideologically integrated environments that were linked physically and symbolically to the cosmic and terrestrial realms of the ancient Maya.

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CHAPTER 15

Caves, Karst, and Settlement at Mayapán, Yucatán

CLIFFORD T. BROWN

Introduction

Mayapán was the capital of most of northern Yucatán during much of the Late Postclassic Period. The city was the seat of a "joint government" (*mul tepal*), or political confederacy, that ruled a regional state for about two hundred years (ca. AD 1250–1450) before the Spanish conquest of Yucatán in 1542. According to native and Spaniard alike, the founding, governance, and collapse of the city formed the most dramatic and singular topic in Maya history at the time of the Spanish conquest; in the chronicles, the rise and fall of Mayapán overshadowed all other preconquest historical events.

Archaeologically, it is easy to see that Mayapán was a primate center in the regional settlement pattern: no other contemporary site in the Maya Lowlands approaches it in size. Because of its political and economic status, Mayapán probably dominated all aspects of art and literature as well (Love 1994:8–13).

The ruins of the city lie some 40 kilometers south-southeast of Mérida, Yucatán (Figure 15.1). The archaeological site measures 4.2 square kilometers inside its 9-kilometer-long defensive wall, within which over four thousand ancient structures are densely packed. The spatial organization of those structures, and especially how they relate to the natural landscape, is the theme of this chapter.

Mayapán lies on a great limestone plain that has developed a distinctive karstic topography and hydrology. Certainly no greater natural influence on ancient Maya settlement patterns ever existed. The structure of the karst determined where water was available in an arid environment. The character of the karst also controlled where suitable land was available for residence. Throughout their history, the Maya had a preference for building their houses on high ground, where good drainage and a cool breeze were to be found. The karst landscape, therefore, governed the pattern of habitable land and the placement of

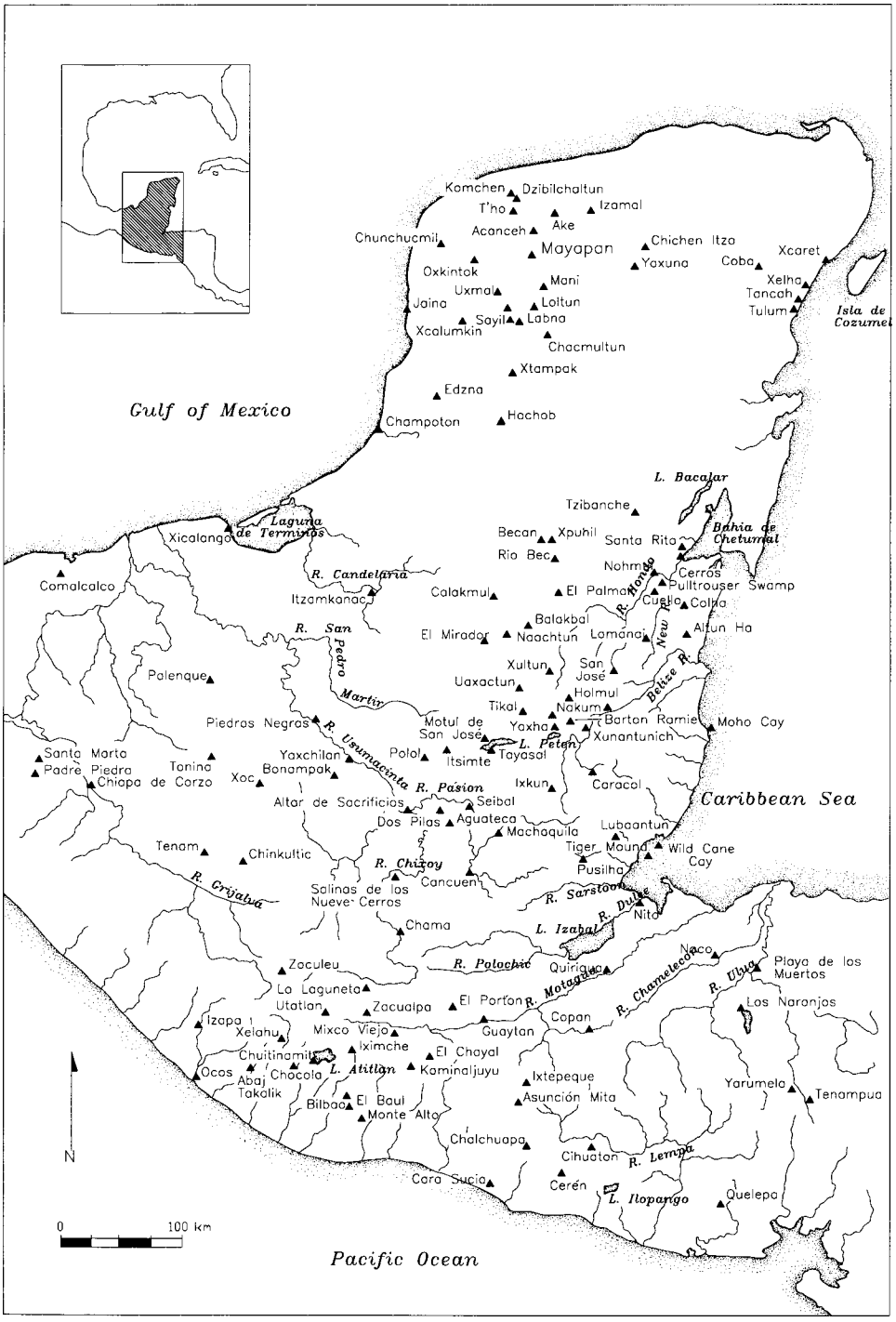


Figure 15.1. Yucatán, with location of Mayapán and other archaeological sites. Drawn by Lynn Berg.

water sources; consequently, it controlled the underlying pattern of settlement within and among communities.

Because the character of the karst varies across the peninsula for a number of reasons, including climatic variation and structural geology, so too did the natural strictures on ancient Maya settlement. Since the sociological, economic, and political facts of Maya society varied across the peninsula for equally complicated reasons, the result is an endlessly complex interplay of nature and culture, of theme and variation.

In this chapter, I explore one example of this patterned variation: how the Maya adapted the social, aesthetic, and religious aspects of their settlement at Mayapán to the karstic landscape. The results of the inquiry are of interest not only because Mayapán was one of the great historical capitals of Maya civilization, but also because some patterns found at Mayapán occur at other Maya cities.

Residential Settlement and Karst Geomorphology

Despite the extensive literature on Lowland Maya settlement patterns and architecture, relatively little progress has been made in describing the distribution of settlement across the landscape. A glance at almost any archaeological site map demonstrates that the Maya preferred to build on high ground, an observation also made by the early Spanish colonists (de la Garza et al. 1983:218). Beyond that, and beyond the obvious fact that residential architecture occurred in various types of groups or clusters, the spatial characteristics of intrasite settlement have not been specified successfully in any detail. Although excellent maps of a few Maya sites exist, no one has created an accurate formal model of settlement within a site. Some scholars think that the settlement pattern was partly random (A. Smith 1962:205); that belief is at least partly false.

At Mayapán, a multitude of small artificial terraces take advantage of the contours of the land to expand the flat living space of the hills and ridges. These constructions are not random, because they relate systematically to the landscape. Accordingly, the morphology of the karst terrain played a role in determining the distribution of the residential architecture. To understand the settlement patterns, therefore, one must describe and understand the underlying topography.

The distribution of water sources at the site played an equally important role in the organization settlement at the site. In and around Mayapán, water occurs only in solution caverns and collapse dolines, more often in the former. Collapse dolines only occasionally reach base level; sometimes they are associated with solution caves that do extend down to the water table. A. L. Smith thought there

was a correlation between the density of settlement and the location of water sources at Mayapán; according to him, the densest settlement occurred around the largest numbers of cenotes (1962:210–211).

Karst is a varied and complex phenomenon. It is "terrain with distinctive hydrology and landforms arising from a combination of high rock solubility and well developed secondary porosity" (Ford and Williams 1989:1; cf. Jennings 1985:1). Karst exhibits distinctive morphology at many scales, from tiny microkarren (measuring less than one centimeter) to regional structures that measure many square kilometers in extent. This patterned variation across many orders of magnitude is fractal. Both genetic and morphological taxonomies have been developed to describe and explain the many varieties of karstic forms. Geologists and geographers (e.g., Dunning 1992:13–20; Miller 1982) have applied these typologies to limited portions of the Maya Lowlands. Unlike in some parts of the lowlands, such as the Bolonchen district, where kegelkarst predominates (Dunning 1992:16), the terrain at Mayapán resists simple classification.

Williams (1972:772–773) calls the closest taxonomic equivalent to the morphology of the Mayapán karst "ridge karst." Ridge karst is a variant of tropical cockpit karst in which the cones between the cockpits appear more as culminations on ridges than as isolated hills (Williams 1972:772). The scale of this pattern at Mayapán is small. The range in elevation is approximately five meters. The ridges meander eccentrically between solution dolines and are topped by small peaks that range in elevation from twenty-seven to twenty-nine meters (in the system of elevations given on the map; true elevations are about eight meters lower [Jones 1952:3–4]).

This morphology is caused by denudation of the surface rock through solution, corrosion, and corrasion, not collapse. Collapse dolines do occur at the site, but are morphologically distinct from the ubiquitous solution dolines that create the cockpits in the ridge karst. Collapse features are steep-sided, they are often associated with solution caverns, and they often approach base level (around thirteen meters below the surface). Furthermore, the origin and evolution of solution dolines is now well documented (Ford and Williams 1989:399–405; Jennings 1985:114–118), and it is widely acknowledged that they are not caused by collapse.

Geologists long supposed that karsts were chaotic, a random jumble of collapse and solution features (Ford and Williams 1989:422). Since the early 1970s, however, karst geomorphologists have demonstrated that this is not the case (Day 1978; Ford and Williams 1989:418–423; Jennings 1985:114–123; Troester et al. 1984; Williams 1972). These researchers have employed morphometric methods to show that karst features, including collapse and solution dolines and residual towers and pinnacles, tend to have nonrandom spatial distributions. The nonrandomness of the distribution is caused, first, by structural controls on the

solution and corrosion processes and, second, by spatial competition that limits the size and shape of solution features. For example, solution dolines normally form around drainpipes that draw surface runoff into the subsurface hydrological system. The pipes tend to develop along joints and fractures in the limestone. The joints and fractures, in turn, often are distributed with some uniformity, because they are created by processes with geometric outcomes, such as, for example, stresses to which the rock responds by sheering or cracking systematically in patterns dependent on its lithology. As the dolines become more numerous and grow, they press against each other, eventually limiting their size and growth. Ultimately, the whole surface is fully occupied by solution dolines. As solution continues, only ridges, pinnacles, or mogotes remain before the surface is fully denuded. Thus, a genetic model of their development can explain the uniformity of the spatial distribution of surficial solution features.

If the distribution of solution features were nonrandom at Mayapán, it would carry important implications for the apparently chaotic distribution of residential architecture. Elsewhere (Brown 1999:157–160), I have used nearest-neighbor analysis to show that the spatial distribution of residual knolls (*b'uu'tun*) is not statistically random at Mayapán, but, instead, tends toward uniformity.

The distribution of known cenotes at the site also appears to be patterned (Jones 1952; Figure 15.2). This begs the question, however, of the actual number of cenotes and their locations. By "cenotes," I mean watering places, because at Mayapán these are often solution caverns with water in them; they may or may not be associated with classic collapse dolines (Figures 15.3–15.8). A few, such as X-te-Toloc, do not now have water in them, but appear to have held water in the recent past. Even those cenotes that have collapse dolines, such as Ch'en Mul, Itzmal Ch'en, and Ch'en Max, also have caves; frequently, it is the cave, rather than the doline, that reaches the modern water table. Locally, the term *ch'e'en* ("well") is used to denote such "caves-with-water-in-them," rather than *'áaktun,* the common Yucatec word for "cave." In fact, the word *ch'e'en* is used for all natural water sources in the area, regardless of whether they are collapse dolines or caves, except for the lakes of the "cenote zone."

The Carnegie Institution archaeologists asserted that there were twenty-six cenotes within the city wall on the map of the site (A. Smith 1962:210, 265). I have been able to find only twenty-three on the final site map (Pollock 1957), but this is only one of several problems in estimating the total number of cenotes at the site. I have identified one cenote at the site that does not appear on the Carnegie map (the unnamed cenote in Square P of Figure 15.2). It is not clear why the Carnegie Institution archaeologists named certain cenotes but not others. Caves apparently were not systematically investigated to determine whether they held water—the only distinction between caves and cenotes. For

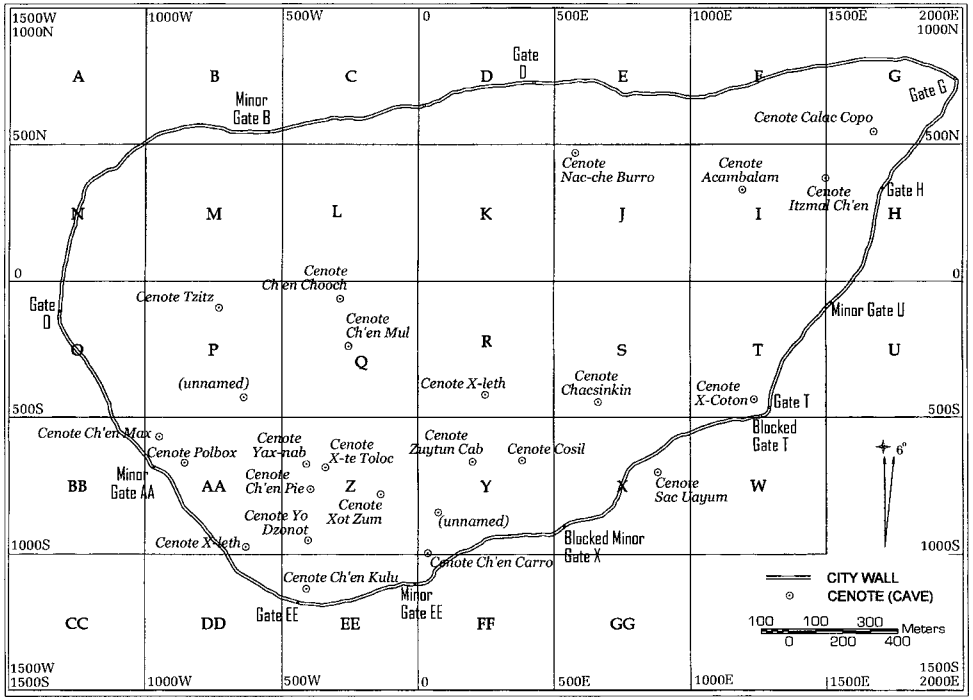
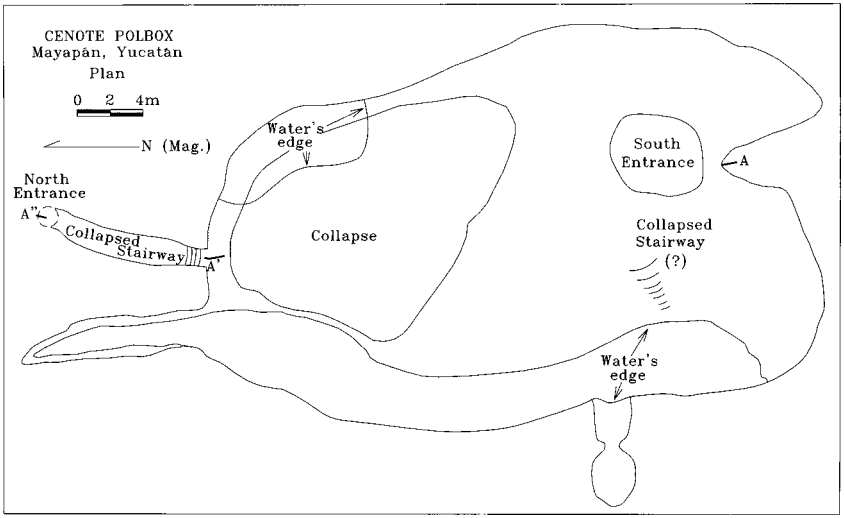


Figure 15.2. Locations of cenotes at Mayapán. After Jones (1952).

Figure 15.3. Plan of the Cenote Polbox, Mayapán. Drawn by the author.



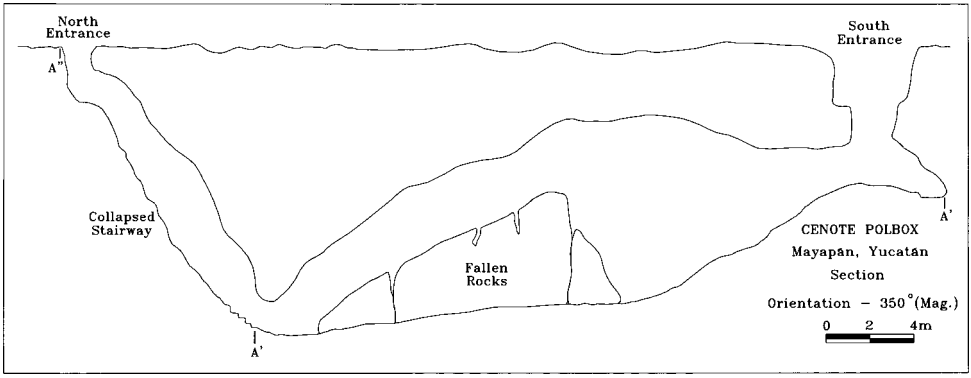
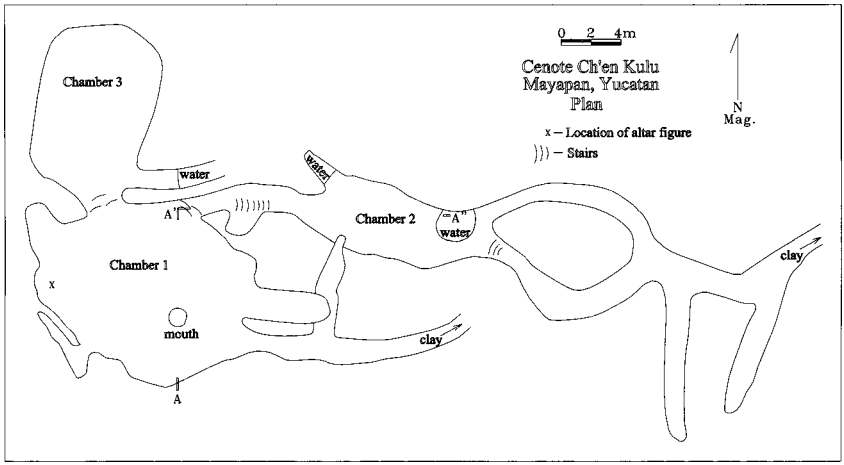


Figure 15.4. Section of the Cenote Polbox, Mayapán. Drawn by the author.

Figure 15.5. Plan of the Cenote Ch'en Kulu, Mayapán. Drawn by the author.



example, the Cenote Polbox is marked on the map as having water in it. A short distance north of the cenote, a cave is marked "W?," indicating that water may be present. In fact, the northern "cave" was the principal entrance to the Cenote Polbox in antiquity. The north entrance has a stairway, while the southern one is a precipitous hole in the ground (Figures 15.3 and 15.4).

Similarly, Cenote Zuytun Cab is marked as having four entrances, one of which is indicated as having water. In reality, the four mouths lead to three cenotes, one of which appears to be dry today, but which clearly held water in the past. The other two cenotes contain large pools of water. The western mouth is a well-like hole in the bedrock that opens into a large chamber with a large, deep pool of water. We found a tunnel leading off from this chamber. The tun-

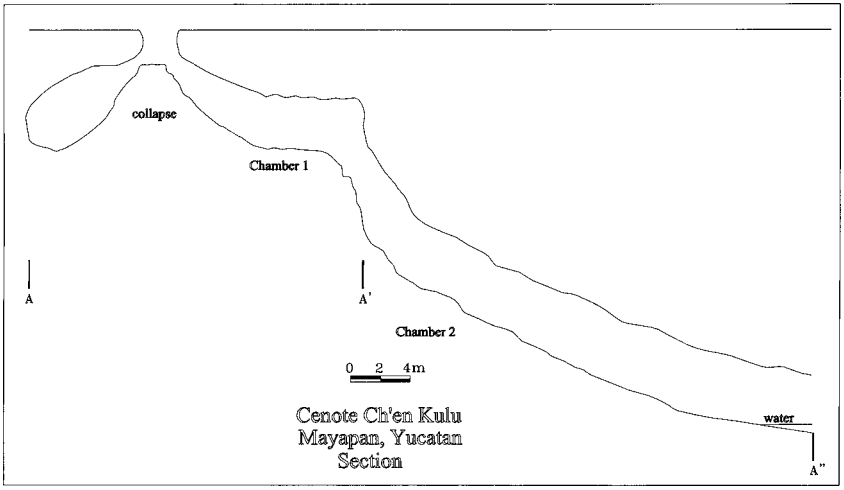
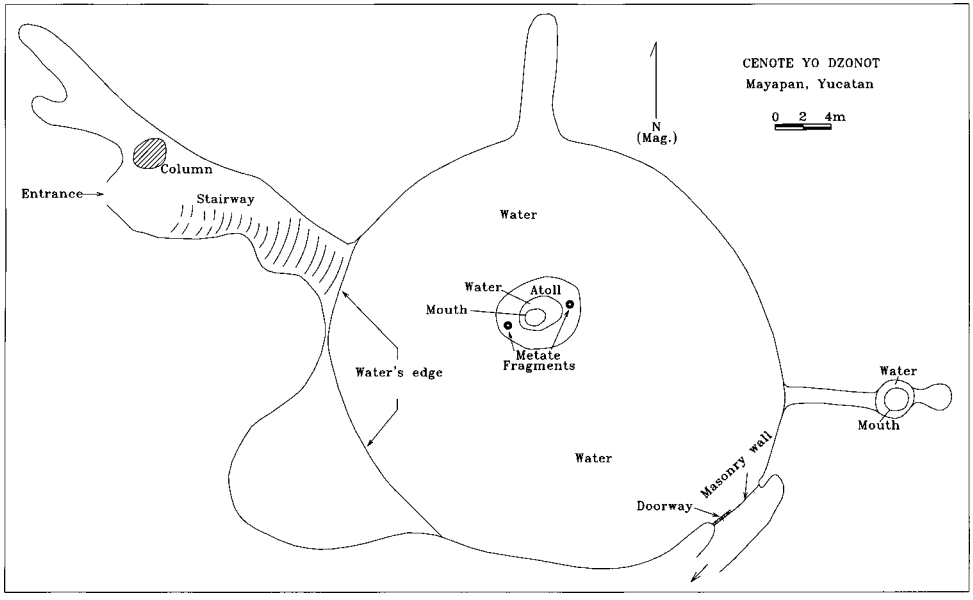


Figure 15.6. Section of the Cenote Ch'en Kulu, Mayapán. Drawn by the author.

Figure 15.7. Plan of the Cenote Yo Dzonot, Mayapán. Drawn by the author.



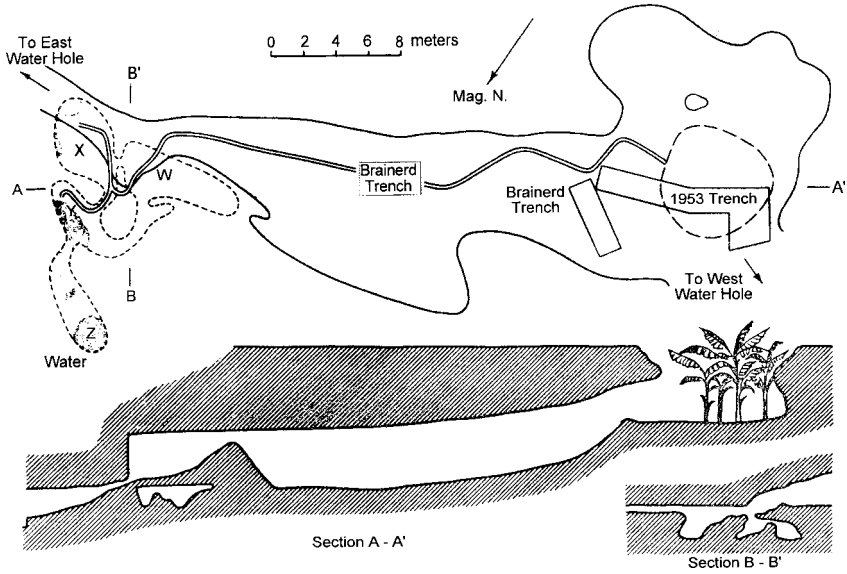


Figure 15.8. Plan and section of the Cenote Ch'en Mul, Mayapán. After R. Smith (1954); courtesy Carnegie Institution of Washington.

nel is littered with artifacts, including some chert, which is rare in the caves of Mayapán. The tunnel is not passable now, but a breeze through it suggests the presence of another entrance, now partially sealed, which probably was the main access in antiquity. The mouth of the tunnel may be in one of the dolines south of the cenote. So, the map indicates one cenote where there are actually three. Moreover, one entrance is apparently lost.

It is also known that some cenotes have been intentionally sealed, since before the Carnegie Institution project, to prevent injury to cattle or to block up raccoon lairs. These have not been explored in modern times. Three such cenotes were reported by Bullard (1954:245; A. Smith 1962:210–211), but do not appear on the site map. In sum, the Carnegie map is not an accurate indicator of the number and location of cenotes. (Since this chapter was written, Arqlgos. Eunice Uc and Carlos Peraza L. have found and explored a number of previously unknown cenotes at Mayapán. I was also shown a previously unrecorded cenote in Square X [Figure 15.2] in the summer of 2002. The total number of known cenotes now may approach forty.)

Nevertheless, from the Carnegie map, one can observe regularities in the spatial distribution of cenotes. For example, the two mouths of the Cenote Polbox, the Cenote Yax-nab, the Cenote X-te Toloc, the four mouths of the Cenotes Zuytun Cab, and the Cenote Cosil form a line running east to west across the southern part of the site. The large Cenote Sac Uayum, just outside the Great

Wall, is not far south of that line. Similarly, the Cenotes Yax-nab, Ch'en Pie, Yo Dzonot, and Ch'en Kulu align north to south. These linear arrangements of cenotes/caves could be developing along fractures in the bedrock.

Fracturing in the Mayapán area may be associated with the Chicxulub impact crater. Mayapán lies just inside the rim of the crater, which is marked by the "cenote zone." The crater is a geological structure dating to the Cretaceous-Tertiary boundary (Hildebrand et al. 1995; Perry et al. 1995; Steinich and Marin 1996; Swisher et al. 1992). Small lakes that formed in collapse dolines or uvalas distinguish the cenote zone. The nearest such lakes lie only a couple of kilometers from Mayapán. Associated fracturing could extend into the site.

Residential Settlement and the Religious Connection to Caves

In addition to the patterned relationship between residential settlement and karst geomorphology, domestic settlement also exhibits a ritual and religious relationship to caves. Descent groups' worship of lineage ancestors created an association between caves and settlement units related to kinship groups. The use of caves for ancestor worship of corporate or territorial groups appears to be a pan-Maya phenomenon. The custom is better documented in the Maya Highlands than in the Lowlands. I will present some of the evidence from the highlands first, and then discuss some previously unrecognized historical evidence for this cult at Mayapán.

A clear understanding of the structure of the cult can be gleaned from Vogt's description of Tzotzil settlement patterns and social organization in the *municipio* of Zinacantan, Chiapas. Vogt (1969:127–180) and his students (e.g., Collier 1975:79–87) have documented in detail a system of patrilocal, patrilineal settlement. Domestic residential groups in Zinacantan are composed of patrilineally related kin living patrilocally. These domestic groups have important social, economic, religious, and political functions. Land is inherited patrilineally. The domestic groups are economic units. Both men and women from the domestic group cooperate economically in tasks ranging from land rental and farming to sheepherding (Vogt 1969:129–130, 136). A cross symbolizing group unity marks each domestic group. The domestic group is the smallest unit in the patrilineage.

Several adjacent domestic groups, which are spatially localized, form a *sna,* or patrilocal patrilineage (Vogt 1969:140). These are self-conscious groups in that they can trace their genealogical connections and live on adjacent lands inherited from ancestors. The *snas* have some jural authority, some control of land, and religious functions. The *sna* may contain only one localized patrilineage or several. The patrilineages vary in size from those with one lineage, four or five

houses, and no more than 15 people to large ones with seven patrilineages, over forty houses, and over 150 people (Vogt 1969:141). Each *sna* maintains a number of cross shrines in caves and on mountaintops that allow them to communicate with ancestral deities. The social group practices ceremonies that reinforce solidarity and mark the *sna* boundaries both geographically and socially (Vogt 1969:141–144).

Next in size in the social structure is the water-hole group, which can vary in size from two to thirteen *snas.* The water holes themselves are highly sacred and are associated with myths. Water-hole groups have religious functions and jural powers over some aspects of life. They maintain cross shrines, as the individual *snas* do, and perform similar ceremonial circuits and other group rituals that define and solidify the entire water-hole group. These too are related to ancestor worship (Vogt 1969:147).

Above the level of the water-hole group is the hamlet, or *paraje.* These are generally endogamous political and territorial units composed of one or more water-hole groups. The hamlets making up the *municipio* of Zinacantan unite for certain ritual and political purposes.

At a yet higher level in the kinship and settlement system are two systems of patronymics: a Spanish surname and a Maya surname. The origin and function of the one based on Spanish surnames is obscure, although it is known from other Maya communities in Chiapas (Siverts 1969; Villa Rojas 1947). Vogt calls these "phratries." The Maya patronymic groups are, in effect, patriclans because they are descent groups composed of people whose genealogical relationships can no longer be traced. These name groups are exogamous and therefore perform an important social function in regulating marriage (Vogt 1969:145). This is a simplified sketch of the social structure of Zinacantan. Many of the patterns are statistical and many anomalies occur; nevertheless, the patterns are robust.

The Zinacanteco social and settlement system highlights the importance of water sources in Maya settlement. They are simultaneously and systematically interconnected with settlement, religion, and social structure. This pattern is not new: there is evidence for the system fairly early in the colonial period (Megged 1999). This is not a localized phenomenon, either, but one that is certainly pan-Maya.

Brady (1997) has reviewed the religious and cosmological importance of caves and springs among various Maya groups. Caves are related to mountains and the gods that inhabit them. These, in turn, are related to ancestor worship (Vogt 1969:378–379, 386–387, 595; Wisdom 1940:425). Among the Tzeltales of Cancuc, for example, sacred caves are associated with the three (there were originally four) exogamous, patrilineal, patrilocal clans. These caves were believed to be caves of origin. The smaller *parajes* were also associated with particular caves, and there was a system of sacred household crosses (Guiteras Holmes

1992:48, 111, 143–146). In Oxchuc, another Tzeltal town in the Chiapas Highlands, religious bonds tied patrilineal settlements to sacred caves (Villa Rojas 1947:579). June Nash has documented a complex system of ritual cave use in Amatenango del Valle, a Tzeltal town between San Cristóbal de las Casas and Comitán. She notes both ancestral spirit caves and more dangerous caves that are inhabited by malevolent spirits (Nash 1985:19–25). A similar system of ancestor worship associated with caves of origin seems to have functioned historically among highland Guatemala groups, like the Pokom, K'iche', Kaqchikel (Miles 1965:285), and Qéqchi' (Gurnee et al. 1968). Thus, caves form major loci in the sacred landscape (see Vogt 1969:378–379, 386–387, 595).

In the relatively arid area of northern Yucatán, where Mayapán is located, caves are, if anything, more important in determining settlement patterns than they are in the relatively well watered highlands. In Yucatán, cenotes are sacred and dangerous: they are thought to be entrances to the Underworld and dwelling places of the *chaaks,* the rain gods. They are sources of evil winds; the plants and animals that inhabit them, especially tortoises, are sacred (Redfield and Villa Rojas 1934:178, 205–206). A cenote is thought of as the cosmological center of the village. At one time, the village cenote was marked by a cross, as were the four corners of the town (Redfield and Villa Rojas 1934:114). However, the social and religious importance of water sources is poorly documented for northern Yucatán. The point is an important one for this investigation because of the possibility that settlement at Mayapán was organized in relation to cenotes. It has been written, and often repeated, that Mayapán's location was based on the existence of a large number of cenotes there (A. Smith 1962:265). My concern here is the ethnohistorical evidence for the significance of these cenotes.

As a preliminary, it is important to recognize that the Yucatec Maya, like their cousins in the highlands, had patrilineages with varied social functions related to landholding, residence, inheritance, marriage, and, apparently, politics and warfare (Brown 1999). The presence of matrilineages (making the Yucatec bilineal) has long been suspected (Eggan 1934; Roys 1940, 1957). The matrilineages probably had economic functions as well (Brown 1999).

As noted earlier, the word *ch'e'en,* "well," is the common term of reference for the cenotes of Mayapán. Although a few are named *ts'ono'ot,* literally, "cenote," most are caves with water in them and are referred to as "wells," which describes their social function. Most of the water sources, both inside and outside of the city, have names and are well known fixed points in the landscape.

Cenotes are mentioned repeatedly in the Books of Chilam Balam, which are colonial-period native books written in the Yucatec Maya language but using the Roman script. The word *ch'e'en* and its derivatives, *ch'e'enil* and *ch'e'enob,* occur seventy-eight times in the Books of Chilam Balam (Miram and Miram 1988:2:322–323), *actun* (*'áaktun*) and its derivatives (including *yactunil*) forty-

two times (Miram and Miram 1988:1:4–5, 6:1456), and *ts'ono'ot* seven times (Miram and Miram 1988:2:397). *Ch'e'en* and *actun* frequently occur together in a couplet or kenning of the form "t u ch'enil—/—T u y ac tunil," which Edmonson (1982:75) translates as "to the wells, to the springs." Similar phrasing occurs a number of times (pp. 79, 92, 94, 97, 105), suggesting a true kenning. I count twenty instances of the parallelism listed in Miram and Miram's (1988:6:1456) concordance of the Books of Chilam Balam, all from the Pérez and Tizimin books.

What does this kenning mean? First, *'áaktun* means "cave," not "spring," at least in Yucatec Maya (Bricker et al. 1998:2–3). "Spring," although poetical, is an unlikely denotation in northern Yucatán, where springs are rare. Second, "wells" and "caves" are usually the same places in northwest Yucatán. The parallelism, therefore, does not contrast two ideas, but emphasizes one through repetition. Edmonson (1982:89) glosses the kenning as "towns and villages," because of, apparently, the close association of settlements with their water sources. I agree with this interpretation. "Generally speaking, the local names of northern Yucatan are those of the watering places: ponds, natural rock tanks, wells, and cenotes" (Roys 1935:2).

The primordial association between towns and their cenotes is often overlooked today, as the ancient cenotes are paved over and water comes out of faucets. This connection is strongest at Chichén Itzá, but many town names incorporate the names of cenotes, wells, or other water sources: Hopelchen, Dzitbalchen, Panabchen, Cacalchen, Bolonchen, Yaxachen, Kancabchen Dzonot, Chikindzonot, Kancabdzonot, Yokdzonot. Less-obvious cases include Cusama ("water where the swifts are") (Roys 1957:60) and Yaxa ("green water") (Roys 1957:96). Other towns are named after adjacent lakes, like Chuaca (Chauac-Ha) (de la Garza et al. 1983:2:83), and some after caves, like Actuncoh and Yoactun. The examples are too numerous to list all. The parallel with the Nahuatl term *altepetl* should not be overlooked. Literally, "water-hill," *altepetl* is glossed as "community," "town," or even "city-state." It is written with a glyph composed of a stylized representation of a hill with a cave at its base.

Many places that do not appear to be are, in fact, named after cenotes. Telchaquillo, which is called Chaak in Maya, is actually named after a now-unused cenote in town. Cansahcab and Sotuta are named after their cenotes (de la Garza et al. 1983:1:94, 145–146).

In a number of cases, the name of the cenote, and hence of the town, comes from one of its characteristics: the name of the town of Pixoy came from the great *pixoy* tree that grew in the town cenote (de la Garza et al. 1983:2:51); Teabo appears to have been named after the grove of plum trees (*abal*) in its cenote (de la Garza et al. 1983:1:318); Dzitnup was corrupted in some way from the name of the *cocoyol* tree growing in its cenote (de la Garza et al. 1983:2:59);

Tecay was reputedly named after the fish in the cenote (de la Garza et al. 1983: 2:125). Thus, although some towns are named after people or animals, plants or gods, others are actually named after their cenotes. So many settlements are synonymous with the names of their cenotes that I believe Edmonson's deduction is correct: "wells and caves" is a metaphor for "towns and villages" or settlements in general.

One of the passages in the Book of Chilam Balam about cenotes is particularly interesting because it mentions Mayapán (Edmonson 1982:94; original emphasis):

Mayapan	*Mayapan*
Uchom ual e	It happened there again
T u cal ch'en	In the pass of the well
T u cal y ac tun	In the pass of the spring
Tan sacil	Before the whitening
Chakan	Fields.
T u kin tz'am coot	At the sun given the ditch,
T u kin y an paa	At the sun there was a wall,

Edmonson interprets this as the continuation of a description of sacrifices that begins on the previous page. *Ual* probably means "then" or "later" (Barrera Vásquez 1980:909) rather than "again." It could also mean "perhaps" (Bricker et al. 1998:299). *Cal* really means "throat" or "neck" and can be easily read this way. Thus, "In the throat of the well/In the throat of the cave" is clearer and more accurate. The next two lines clearly form a couplet because both *coot* and *paa* mean "wall." *T u kin* in this context scans more smoothly as "on the day" or "at the time," rather than as "at the sun." *Coot* is used in modern spoken Yucatec to mean specifically the ubiquitous, dry-laid stone walls that mark property boundaries, which Bullard and I call "boundary walls" and which are called "*albarradas*" in the local Spanish of the peninsula. I cannot adduce any support for "ditch." *Paa* is used generally to denote larger, defensive walls in texts like the Books of Chilam Balam. Edmonson reads *tz'am* as a form of *ts'ah,* "give," but in this context it means to "square" or "smooth" stones (Barrera Vásquez 1980:876). Thus:

Mayapan
It happened then
In the throat of the well,
In the throat of the cave
Before the fields

On that day, an *albarrada* was squared
On that day, there was a wall.

This translation is clearer and more accurate than Edmonson's, though less graceful. The passage is an affirmation of the importance of the caves and cenotes at Mayapán and suggests their relation to sacrifice and ritual.

The most important passage on this theme is also from the Tizimin (Edmonson 1982:110; original emphasis):

Tutz'oc ucuch katun	The burden of the katun is finished
Ti to uil y okol *Mayapan*	Which is one moon over *Mayapan,*
Ti uchom may cu	The cycle seat,
U y etz'	His setting,
U ch'ibal	His lineage,
T u ch'enil	At the wells,
Ti y ac tunil	At the welling fountains.
Ti x uchom cim cehil	And there occurred deer death
Ma ya cimlal	And painless death.

This passage indicates that caves and cenotes were ritually and religiously associated with lineages at Mayapán. The text is relatively clear and straightforward. The translation presents some of the same problems already discussed, such as the rendering of *yactunil* as "welling fountains." Edmonson does, however, provide the basic meaning. There is a parallel, nearly identical passage in the Pérez manuscript of the Book of Chilam Balam (Miram 1988:3:90).

Thus, the Books of Chilam Balam tell us that aspects of the cenote cult, so famous from Chichén Itzá, took place at Mayapán. The cult was probably ubiquitous. One may recall that the victims of sacrifices uncovered by Landa's inquisition were uniformly dumped in cenotes, and also some of the witnesses interrogated admitted to keeping their idols in caves (Scholes and Adams 1938:25, 94, 97). There is, of course, a great deal of archaeological evidence that caves were used ritually in northern Yucatán (e.g., Andrews 1970; Thompson 1975), and, as we will see, the caves of Mayapán itself yield evidence of such practices. Most scholars, however, seem to connect the rituals only with a rain-bringing cult. The above passage from the Tizimin (and its analogy from the Pérez) is the only evidence I know of that links the Yucatecan cenote cult directly to lineages, and presumably to ancestor worship. That it does so specifically at Mayapán is particularly important. The parallels with the Highland Maya settlement and kinship model are remarkable and suggest that parts of Vogt's model are probably applicable to Mayapán.

Civic and Ceremonial Architecture

The second portion of this chapter is about the relationship of civic and ceremonial architecture to the karst geomorphology at Mayapán and, more specifically, to caves and cenotes. A large corpus of evidence has accumulated that Maya ceremonial architecture and its spatial organization were related to ancient Mayan conceptions of politics, religion, society, and the cosmos. There is good reason to believe, for example, that some Maya ceremonial centers can be read as cosmograms (e.g., Ashmore 1989; Aveni 1980:218–286; Aveni and Hartung 1986; Carlson 1981; Coe 1965; Coggins 1980, 1983; Fox 1991). The iconography and architecture of individual buildings were imbued with cosmic and ritual symbolism. The orientation of buildings and groups of buildings was related to astronomical phenomena of religious and calendrical significance. The arrangement of whole ceremonial centers and even sites replicated celestial archetypes.

The best systematic explanation for these phenomena is Eliade's account of the relationship between religion and cyclic history in "archaic" (i.e., non-Judeo-Christian) cultures (Eliade 1958, 1965; see also Aveni 1980:219; Gossen and Leventhal 1993; Kus 1983; Wheatley 1971). Eliade (1965:3) took as his problem the "conceptions of being and reality that can be read from the behavior of the man of premodern societies." He wrote that

> the chief difference between the man of the archaic and traditional societies and the man of the modern societies with their strong imprint of Judaeo-Christianity lies in the fact that the former feels himself indissolubly connected with the Cosmos and the cosmic rhythms, whereas the latter insists that he is connected only with History. Of course, for the man of the archaic societies, the Cosmos too has a "history" . . . But this "history" of the Cosmos and of human society is a "sacred history," preserved and transmitted through myths. More than that, it is a "history" that can be repeated indefinitely, in the sense that the myths serve as models for ceremonies that periodically reactualize the tremendous events that occurred at the beginning of time (Eliade 1965:xiii–xiv).

He argues that for non-Western peoples, "reality is a function of the imitation of a celestial archetype . . . reality is conferred through participation in the 'symbolism of the Center': cities, temples, houses become real by the fact of being assimilated to the 'center of the world' . . . Rituals and significant profane gestures . . . acquire the meaning attributed to them, and materialize that meaning, only because they deliberately repeat such and such acts posited *ab origine* by gods, heroes, or ancestors" (Eliade 1965:5–6).

It was this view of reality that led to the periodic regeneration of cosmos, society, and time through the ritual reenactment of the cosmogonic act (Eliade 1965:51–92). In other words, the repetition of archetypical mythical acts sacralizes profane space and the quotidian tasks of life. The repetition of archetypes, in turn, is a necessary element of life in cyclical time. Prominent among the repeated archetypes were ceremonies of ending and renewal. Eliade (1965:112–130) presents an impressive list, drawn mostly from the Old World, of rituals associated with cosmic regeneration, many of them, naturally, New Year ceremonies, not a few reminiscent of ancient Maya New Year rituals. These periodic recapitulations of cosmic birth take place in the context of great cycles of time.

To understand how Eliade's theory helps explain the organization of sacred space and architecture at Mayapán, let us examine a concrete example. Eliade (1965:12) argued that the architectonic symbolism of the sacred Center consisted of

1. the Sacred Mountain—where heaven and earth meet—situated at the Center of the World.
2. Every temple or palace—and by extension, every sacred city or royal residence—is a Sacred Mountain, thus becoming a Center.
3. Being an *axis mundi,* the sacred city or temple is regarded as the meeting point of heaven, earth, and hell.

There is a growing body of direct iconographic and epigraphic evidence that the Maya regarded their pyramids as sacred mountains (Fash 1991:100; Schele and Freidel 1990:71–72, 427). The ritual and spiritual center of Mayapán was Structure Q-162, also known as the Temple of Kukulcan or the Castillo. It was the largest and tallest pyramid at the site and was located at the center of the largest concentration of civic-ceremonial architecture. It was, in short, the architectural focus of the site's ceremonial architecture (Figure 15.9) (Shook 1954:89):

> Even a casual inspection of the ruins of Mayapan would enable one to state that the temple of Kukulcan (Str. Q-162), popularly known as the Castillo, was the most important architectural unit of the site. Situated on the northwest edge of Cenote Ch'en Mul, it occupies the central position in a tight assemblage of lesser temples, shrines, colonnaded halls, and buildings of diverse types. The terraced pyramid and the temple on its summit tower above the surrounding structures, and the flatness of the land for leagues in all directions tends to magnify the Castillo's height. In ancient times the white stuccoed temple and pyramid must have gleamed like a beacon above the forested land.

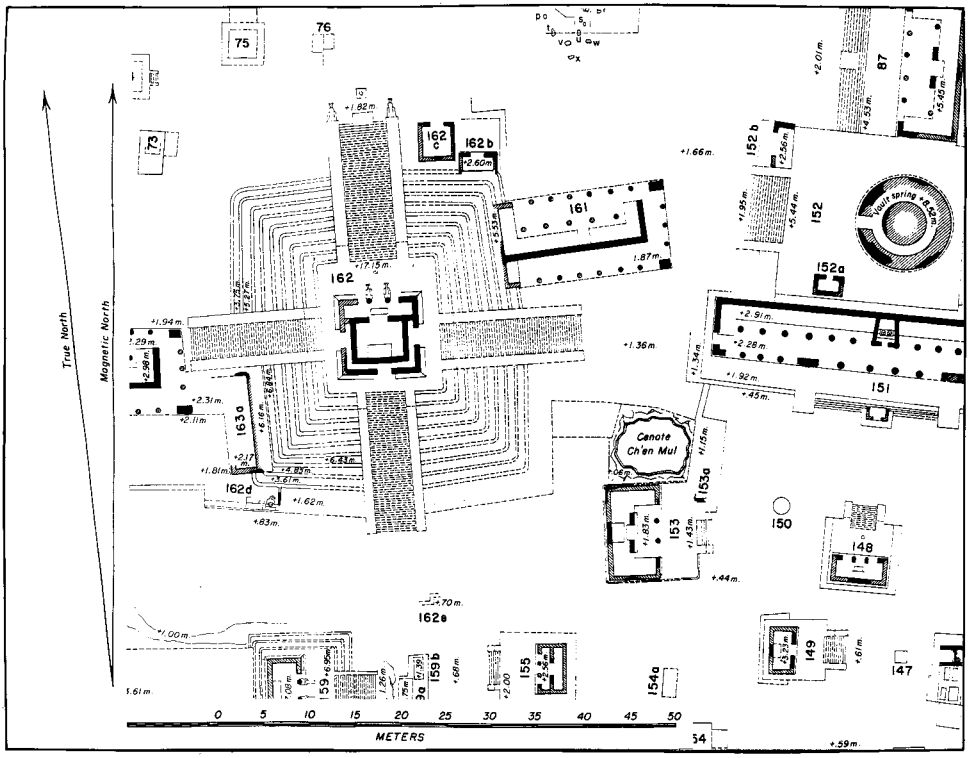


Figure 15.9. Part of a detailed map of the ceremonial center of Mayapán, showing the relationship of the Temple of Kukulcan to the Cenote Ch'en Mul. From Pollock et al. (1962); courtesy Carnegie Institution of Washington.

Interestingly, the Temple of Kukulcan is a radial temple; that is, it exhibits four roughly symmetrical stairways descending the four sides of the structure. Coggins (1980, 1983) has written extensively about this architectural form. She has argued that radial temples were ritually associated with completion, specifically, with calendrical termination rituals, like *katun* endings and New Year ceremonies (see also Carlson 1981). This is shown not only by their plan, which resembles a glyph for completion, but also by their astronomical orientation.

Two radial temples in northern Yucatán are known to participate in astronomical hierophanies: the Temple of Kukulcan at Chichén Itzá and the Temple of the Seven Dolls at Dzibilchaltun. Since the Temple of Kukulcan at Mayapán is apparently a copy of the one at Chichén, the former may also have a special astronomical orientation, especially because it too has a round temple, perhaps an observatory, nearby (Structure Q-152). At Chichén Itzá on the equinox the play of light and shadow on the balustrade of the Temple of Kukulcan creates

the visual impression of a serpent. Apparently, this is not the case at Mayapán, where the orientation of the radial temple is different. If there is an astronomical hierophany at Mayapán, it has been difficult to observe because of the ruined condition of the building. Now that the Instituto Nacional de Antropología e Historia (INAH) has excavated and consolidated the structure, perhaps a hierophany will become visible.

There is direct evidence that the Temple of Kukulcan at Mayapán acted as an *axis mundi* that united Heaven, Earth, and the Underworld. Like its analog at Chichén Itzá, the Temple of Kukulcan at Mayapán had nine terraces (Shook 1954:93), equal to the number of levels in the Maya Underworld (Carrasco 1990:67). Carlos Peraza's excavation of the Temple of Kukulcan has also revealed human figures with death imagery modeled in stucco on the southeast corner of the Castillo substructure (Q-162-sub). This is the corner of the building nearest the Cenote Ch'en Mul. In Postclassic Mesoamerica, death imagery like this was associated with cyclic completion (Klein 1975).

The connection to the Underworld is made palpable, however, by the presence of a natural cave below the temple. Robert Smith (1953a:280; 1954) reported that an arm of the Cenote Ch'en Mul extended approximately west-northwest beneath the Temple of Kukulcan, but he does not seem to have attached much importance to the fact (see Figure 15.8). It has since been discovered that caves or tunnels occur beneath several major pyramids in Mesoamerica, including the Temple of the Sun at Teotihuacan (Heyden 1975, 1981, 1989) and the Temples of K'ucumatz and Tojil at Utatlan (Fox 1991). These tunnels and caves have been interpreted as being related symbolically to Central Mexican creation myths and to the Maya Underworld, Xibalbá, of the K'iche' Maya *Popol Vuh.* The cave beneath the Temple of Kukulcan probably possessed similar mythical significance for the Maya and likely determined the placement of the structure.

The association between the radial temple, symbolic of completion and renewal, and the underlying cave, symbolic of origins, is explained by Eliade's paradigm in an interesting way. Instead of the cave's being merely an entrance to the Underworld, Eliade (1959a:80–81; original emphasis) asks us to consider that

> 1) through annual repetition of the cosmogony, time was regenerated, that is, it began again as sacred time, for it coincided with the *illud tempus* in which the world had first come into existence; 2) by participating ritually in the end of the world and its re-creation, any man became contemporary with the *illud tempus;* hence he was born anew, he began life over again with his reserve of vital forces *intact,* as it was at the moment of his birth.
>
> These facts are important; they reveal the secret of religious man's attitude

> and behavior in respect to time. Since the sacred and the strong is the *time of origins,* the stupendous instant in which a reality was created, was for the first time fully manifested, man will seek periodically to return to that original time. This ritual reactualizing of the *illud tempus* in which the first epiphany of a reality occurred is the basis for all sacred calendars; the festival is not merely the commemoration of a mythical (and hence religious) event; it *reactualizes* the event.
>
> The paramount *time of origins* is the time of the cosmogony, the instant that saw the appearance of the most immediate of realities, the world. This . . . is the reason the cosmogony serves as the paradigmatic model for every creation, for every kind of doing. It is for this same reason that *cosmogonic time* serves as the model for all *sacred times.*

And (Eliade 1959a:78–79; original emphasis),

> Since the New Year is the reactualization of the cosmogony, it implies *starting time over again at its beginning,* that is, restoration of primordial time, the "pure" time that existed at the moment of Creation. This is why the New Year is the occasion for "purification" . . . For it is not a matter merely of a certain temporal interval coming to its end and the beginning of another . . . the sins and faults of the individual and of the community as a whole are annulled, *consumed as if by fire.*

The relation of a cave to the origin myth is relatively obvious in the case of the Temple of the Sun at Teotihuacan (Heyden 1975), assuming, of course, that the inhabitants of Teotihuacan shared later Nahua mythology. In the Maya case, it is reasonable to assume a connection with some version of mythological events similar to those related in the *Popol Vuh,* in which the ancestral Hero Twins die and are reanimated during their journey through Xibalbá. In the alternative, there might be a connection with Highland Mexican mythology and ritual, as Coggins has argued for many of the radial temples and their associated ritual behaviors (Coggins 1980, 1983). We can see in this example the advantage of referring to a paradigm like Eliade's: the relationship between calendrical renewal ceremonies and origin myths might not be evident to the archaeologist.

Are there other especially sacred cenotes at the site? Several were obviously related to a variety of ritual activities. For example, both Itzmal Ch'en and X-Coton are associated with assemblages of civic-ceremonial architecture, the former being the largest such assemblage outside of the main group. Today, and since at least 1950, the Cenote Itzmal Ch'en has been the site of the annual *ch'a'ah-chaak* (rain-bringing ceremony) of the men of Telchaquillo (Shook 1952). The cenote itself, which lies in the eastern extreme of the site, is unusually large

and dramatic. It is probably not coincidental that a visually inspiring cenote at the most sacred of the cardinal directions should develop and retain a holy aura.

The position of the Cenote X-Coton raises another and different issue (Proskouriakoff 1962b:130):

> The X-Coton temple and the shrines are located near one of the principal gates of the city wall, and the course of the wall at this point seems to be deliberately deflected to contain the buildings, or at least to contain the area around the cenote near which they stand. The buildings themselves are of Mayapan date, but a considerable amount of pre-Mayapan pottery was found in the vicinity, and there is some evidence that the cenote itself may have been used for burial in pre-Mayapan times . . . It therefore seems reasonable to think that an ancient tradition associated specifically with X-Coton is responsible for the ceremonial buildings in this locality. (See also R. Smith 1953b)

These observations raise the question of the course of the city wall. There is a series of cenotes near the wall in the southern part of the site. The Cenotes Ch'en Max, Polbox, X-leth, Ch'en Kulu, and Ch'en Carro are all within about 250 meters of the wall, most even closer. Like X-Coton, Ch'en Kulu also may have had a sacred or ceremonial character. In the cave, we found both a stone altar figure (Proskouriakoff 1962a:331–333) with clear calendrical associations and a feature of possible ceremonial or ritual function (Figures 15.5 and 15.6). The large bulge in the southwestern part of the great wall probably existed to embrace Ch'en Kulu and the other nearby cenotes.

If the wall deviates to include this large group of cenotes, why then would it take a sharp inward curve between the cenotes Ch'en Carro and X-Coton, thereby excluding the large Cenote Sac Uayum? Bear in mind that the great wall of Mayapán was the brand and symbol of the city. Rarely does the word *Mayapan* occur in the native chronicles (such as in the Books of Chilam Balam) without the epithet "*ich paa*" (inside the wall), which thus became the ruling trope or metaphor for the city, not unlike the ramparts of "holy Ilios." Clearly, the course of wall would have been important in separating the sacred from the profane and the center from the periphery. Surely, simplicity and convenience would dictate that a large cenote would be better within the city than outside it.

Sac Uayum is a visually dramatic cenote. A shallow depression in the limestone surface opens on one side to expose a large cavern. Only a small amount of light penetrates the cavern through the entrance and through another, smaller aperture in the roof. The walls are vertical or overhanging. The water is unusually deep and clear. The cenote has a fearful reputation. Some local people believe that a feathered serpent lives in the cave. Children are prohibited from approaching it lest the serpent snatch them. Some local residents claim to have

seen the creature. Some say they have seen it swimming in the depths of the water. One old man claims to have seen a feathered serpent in a nearby tree; as he watched, it flung itself out of the tree and dove into the mouth of the cave.

Although there is no direct evidence, it can be assumed that the legend of the feathered serpent in the cenote is of preconquest age. It reminds one of the dangerous caves of Amatenango described by Nash (1985:23–26). The beliefs about Sac Uayum provide an explanation for the deliberate exclusion of the cenote from the city, the absence of a gate in the immediate vicinity, and the lack of residential platforms surrounding it. Note that this dangerous and malevolent cenote is on the south side of the site, at *nohol,* the nadir. The presence of a sacred cenote in the east and an evil one in the south leads us to the idea of a quadripartite cosmogram. Perhaps the whole site, and not merely the ceremonial center, participated in the cosmogram.

Some Mayanists have seen the relevance of Eliade's ideas to the interpretation of Maya religion (Aveni 1980; Brady 1997; Schele and Friedel 1990). There is evidence that these ideas are specifically applicable to Mesoamerica and the Maya. For example, the relevance of Eliade's religious archetypes to the ancient Maya is strongly reinforced by recent reconstructions of Mesoamerican belief systems. Mesoamerican ethnohistorians, for instance, have developed some of the same paradigms as Eliade through examination of specific, local problems (Gossen 1986:5–6):

> At the very least, the symbol clusters noted below have both temporal and spatial persistence in Mesoamerican thought . . .
>
> 1. The abiding theme of cyclical time as a sacred entity . . . it is clear that sacred, cyclical, solar time has held powerful sway in both the ancient and contemporary Mesoamerican universe . . .
> 2. A consistent delimitation of sky, earth, and underworld in the spatial layout of the cosmos, with mediation among these realms as a key intellectual, political, and religious activity, for with successful mediation come power, wisdom, even personal health, and community survival. Some variant of this spatial layout, with subunit segmentation and directional symbolism, occurs throughout pre-columbian Mesoamerica . . . and persists in our time, particularly in the Maya area.

Carrasco (1990) presents another extended treatment of this subject.

Such correlations suggest that Eliade's theory of religion is applicable specifically to Mesoamerican and Maya cases, whether or not its claim of cultural universality can be substantiated. The extensive and detailed parallels between Maya religion and Eliade's archetypes go well beyond those described here,

strongly implying that such an interpretive approach can be fruitful. The potential advantage in doing so lies in the explanatory power of his approach. Eliade sought to establish a science of comparative religion, or *Religionswissenschaft* (Eliade 1959b). Although his methodology has been questioned, the alleged hermeneutical and psychological bases of his phenomenology allowed him and his successors to make claims of cultural universality for their analyses (Allen 1978, 1982; Dudley 1977).

Tambiah (1985:257) offers three cogent criticisms of Eliade's views: (1) the view is static and fails to account, therefore, for the variation and dynamism of the subject societies; (2) there is no evidence for the existence of "a prior ontology," that is, what Eliade calls "the mind of Archaic man" or pre-Judeo-Christian thought as such; and (3) it is impossible to separate the sacred from the profane or from the religious, political, and economic domains, because culture is a holistic phenomenon. This last point represents a position widely held by cultural and social anthropologists. Its opposite—that culture can be studied analytically—is equally widely held. In archaeology, the former represents an extreme cultural relativism in which knowledge of the past is almost impossible. This is not the place to debate the issue.

Tambiah's second point says less about Eliade's view of "Archaic man" than it does about his optimistic assessment of modern thought as being more linear and historical than its predecessor. One should not therefore conclude that Eliade's view of ancient religion is incorrect, because the error may lie in his view of "modern" man.

Tambiah's first point is more valid, but does not, I think, reduce Eliade's interest to Mesoamericanists. The vividness, detail, and specificity of Eliade's arguments do much to compensate for their technical lack of dynamics. Furthermore, I do not think Eliade's mode of explanation is invalid for failing to conform to contemporary expectations of how explanatory models should be structured. Eliade identified broad and widely applicable patterns of human thought and experience. That we do not fully understand how, when, and why they arose and persisted speaks more to our ignorance about this domain of culture (or its complexity) than to the quality of his observations and interpretations.

Summary and Discussion

The geomorphology of the karst underlying Mayapán clearly affected the site's residential settlement pattern. The effect on the distribution of patio groups is difficult to ascertain, however, precisely because they are not correctly delineated on the site map. The patterning of *b'uu'tuno'ob'* certainly influenced the spatial distribution of clusters of house lots, but to understand how requires further in-

vestigation through additional mapping at the site. The mathematical and geometrical characteristics of both landscape and settlement at the site have only begun to be described and analyzed (Brown 1999:111–191).

The caves and cenotes of Mayapán were used for a variety of rituals, and they were probably major foci in the sacred landscape. The watering places were likely associated with a "cenote cult" concerned with rainmaking. Caves and cenotes were also connected to kinship and social organization. Caves must have been the dwelling places of lineage ancestors, as they are among the Highland Maya of Chiapas and Guatemala. Other nearby caves may have been evil and dangerous.

The civic-ceremonial architecture of the site was clearly organized in conformity with Mayan cosmological principles. The Temple of Kukulcan was shown to represent a sacred mountain linking Heaven, Earth, and Hell. The Underworld was literally present in the site cosmogram, in the form of a natural cave below the pyramid. The cave must have been a surrogate for the place of origin where the cosmogony first occurred. The temple as a hierophany surely participated in calendrical rites, either of the New Year or *katun* endings, and probably both. The locations of other caves also influenced the layout of city. The positions of the Cenotes X-Coton, Ch'en Kulu, and Sac Uayum, for example, almost certainly affected the course of the city wall.

I have not discussed many important characteristics of the caves of Mayapán. They were, for example, used for burial. I observed human remains in Yo Dzonot and Ch'en Kulu, and the Carnegie Institution team also found burials in several caves. Caves served as sources of raw materials, such as certain types of calcite and clay, and produced stalactites, which at Mayapán were used as elements in altars (Adams 1953). Much research on this topic remains to be done at Mayapán and will undoubtedly produce greater insight into Maya society and religion.

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CHAPTER 16

Concluding Comments

KEITH M. PRUFER AND JAMES E. BRADY

As the first edited volume on Mesoamerican ritual cave use, the collection of chapters presented here is significant in a number of respects, particularly to the nonspecialist who may not have been aware of the development of this subfield since 1990. The first change is simply in tone. The chapters presented here differ from the earlier interpretive attempts that tended to be highly speculative and often drawn from iconographic analysis, and provided only a generic interpretation of how caves were used. The current efforts, by contrast, tend to focus on the explanation of a specific body of data from a specific site, so the discussions are empirically grounded. The data used to support positions tend to be far more extensive and broadly drawn from archaeology, ethnohistory, ethnography, and art history, so contentions are far more closely argued and convincing. Finally, the focus on such tangential issues as hallucinogenic drug use and altered states of consciousness (MacLeod and Puleston 1978) has been replaced by attempts to relate the cave data to larger religious, economic, and political issues in Mesoamerican studies. Thus, this volume exemplifies the development of cave studies into a mainstream area of research carried out by serious and well-known scholars addressing a range of issues central to their disciplines.

More than anything else, however, the new direction in cave research is developing out of an emerging recognition of the importance of *Earth* as a sacred and animate entity in indigenous cosmology. David Stuart's (see Chapter 7 here) decipherment of the *ch'e'en* glyph as "cave" offers dramatic confirmation of this importance. Scholars are already debating the meaning of the reading, since it appears that it does not always refer simply to caves. Simon Martin (2001:178) notes, "The word *ch'een,* 'cave' is a recent decipherment, and seems to have a derived meaning of 'town/city' either because settlements were symbolically, or literally, associated with particular caves; or because the word simply abbreviated the metaphorical couplet *chan ch'een,* 'sky-cave' which referred to key population centers."

A larger pan-Mesoamerican view allows us to understand what may be happening here. In Central Mexico, human settlements are referred to as *altepetl,* which means "water-filled mountain," so that throughout Mesoamerica human populations are referred to and conceptualized in terms of their associated terrestrial landmark. Settlements are known and legitimized through this reference to place.

As features at the core of pan-Mesoamerican ideology, caves possess an importance and power that Mesoamerican specialists have been slow to appreciate. The evidence, however, is both clear and abundant. The cave complex at Acatzingo Viejo, Puebla, was important enough in the indigenous sacred landscape that it was portrayed in the ethnohistorical Map of Cuauhtinchan No. 2 (Chapter 4 here), and caves in general figure prominently in this map. The Colossal Natural Bridge on the Ndaxagua River also appears repeatedly in the Mixtec codices (Chapter 6 here). In another place, Rincón (1997:135–136) explains, "The Coixtlahuaca codices extol place and place-making by referring to the earth's creation, especially to two unique landforms [a hill and the cave] found in the Basin considered to be evidence for this event. Allusions to these two landforms occur over and over in the Coixtlahuaca sixteenth-century painted documents. Their eventual appropriation, in a reenactment of creation, appears to be of central importance to the foundation of the Chocho villages in the Coixtlahuaca Basin."

The association of the Colossal Natural Bridge on the Ndaxagua with creation is also echoed in the analysis of Acatzingo Viejo. The importance of world creation as a symbol of fundamental religious importance has been underappreciated by Mesoamerican specialists. Yet Eliade (1959:81) underscores this point in seeing the creation of the world "as the paradigmatic model for every creation" (see also Chapter 15 here). Erich Isaac (1962) asserts that religious landscape modification is usually an attempt to model the primordial landscape. Ángel García-Zambrano (1994:217–218) suggests, furthermore, that it is the model of that landscape that guides the search for all Mesoamerican settlement: "Essentially, Mesoamerican migrants searched for an environment with specific characteristics that . . . had to recall the mythical moment when the earth was created: an aquatic universe framed by four mountains with a fifth elevation protruding in the middle of the water. The mountain at the core had to be dotted with caves and springs, and sometimes surrounded by smaller hills. A setting like this duplicated, and forever would freeze, the primordial scene when the waters and the sky separated and the earth sprouted upwards."

The strength of current cave research is that it has been able to take these abstract expressions of indigenous cosmology and link them to material evidence in the archaeological record of the functioning of the ideology in ancient societies. For example, when García-Zambrano (1994:218) states that the caves

"became the pulsating heart of the new town, providing the cosmogonic referents that legitimized the settlers' rights for occupying that space and for the ruler's authority over that site," we see evidence of the Acatzingo Viejo rulers' need to establish this legitimacy in the excavation of a model of the primordial cave of origin beneath their site. While Acatzingo Viejo is a particularly clear example of an artificial cave being constructed in a site's core of public architecture, it is by no means unique. One has only to look at Teotihuacan (Heyden 1973, 1975; Manzanilla et al. 1994), Xochicalco (Hirth 2000), Zaculeu (Brady 2002), Utatlan (Brady 1991), La Lagunita (Ichon and Viel 1984), and Mixco Viejo (Brady and Veni 1992) to see that there is now a well-documented pattern of cave construction throughout Mesoamerica. Furthermore, because the pattern of cave construction replicates the association of architecture noted with natural caves (Brady 1997), it provides convincing evidence that the placement was intentional. The theoretical and ideological reasoning behind the incorporation of such symbols has been discussed at length (Brady 1997; Brady and Ashmore 1999; García-Zambrano 1994).

Another important characteristic of this volume is its intentional integration of archaeology, ethnohistory, and ethnography. This grounds discussions of archaeological data in models based on actual behavior of real people. As elsewhere in the world, the caves that form the material or conceptual bases of these chapters are elements of landscapes made sacred by the actions of people who mythologized, marked, and mapped places in the wilderness and then integrated them into their cultural geography (Taçon 1999:2). Once a site is made sacred, it carries with it a new range of rules for behavior in relation to the site, rules that often imply relationships with a "non-empirical" world (Carmichael et al. 1994:3). As spatial and cognitive elements, landscapes are intertwined with time, in that they are not static or abstract entities, but part of social practices (Gosden and Head 1994:113; Gregory 1985:315). Space and time are related in that they represent a relationship between objects and actions. The production of social space results in the creation of history (Soja 1985:91).

Across Mesoamerica, religious symbolism has important terrestrial components, and these are most frequently manifested as mountains and caves, which are the natural features considered the most sacred (Stuart 1997; Stuart and Houston 1994:86; Vogt 1969, 1997a, 1997b). In general, mountains in these indigenous ideologies are referred to by the specific names of their guardians or owners, who also represent deity or ancestral personages (Monaghan 2000: 45n12). As these chapters (see Chapter 12 here) have shown, caves are conceptually linked with mountains. Together, they represent the idealized manifestation of the power of the earth. A Q'eqchi' Maya states explicitly, "Among four or five mountains there is always one that is most important, especially if it has caves. If it has caves it is most powerful because it has water" (Garza 2003). Together,

mountains and caves are directly associated with ancestors, health, and personal and political success. Further, in the modeling of the earth as an element of the Mesoamerican universe, relationships between humans and the sacredness of the landscape are most clearly articulated by shamans (see Chapter 8 here; Gossen 1974:34; Hanks 1990:304; Madsen 1955; Sandstrom 1991:236), a pattern that these chapters indicates was also evident in the past.

While dealing in generalizations we need to be cautious in order to avoid the perception of seamless and unifying theologies. Monaghan (2000:29) notes that while Mesoamerican belief systems can be "characterized by a theology that focuses on the essential oneness of nature and experience, an obvious problem is how to explain the peculiarities." Drawing from sources across a large and diverse area that is not politically and socially unified risks reifying and essentializing generalizations about belief systems. As with all comparative endeavors, what must be avoided is "confounding of a wide range of related forms with one form favored which . . . all similar forms must be seen as striving" (Whitehead 1986:81).

It has been long recognized that there is thematic congruence in perceptions of the sacred and animate earth across linguistic and cultural boundaries. Yet, it is also critically important to recognize that expressions of the sacred earth are embedded in a plurality of religious forms across Mesoamerica, and that these are viewed and acted on in different ways in different places. While the sacrality of mountains and caves is evident across the regions, features in a landscape that are perceived as sacred by individuals or groups are "contingent on the specific experience" of those people (Brady and Ashmore 1999:125). Differing historical knowledge as well as linguistic and social trajectories carved out unique forms of religious expression across Mesoamerica. We still believe that comparative methods have intellectual merit, not only because they reflect an underlying shared commonality in worldview (Kirchhoff 1968), but also because, in the words of Gary Gossen (1986:5), regional synthesis "reinforces the time-honored strategy for understanding the micro-view." This volume encapsulates both perspectives, working from local data to understand regional patterns while at the same time broadening our understanding of commonalities apparent across Mesoamerican theologies. Such breadth speaks to the fact that the cave complex is an essential feature of Mesoamerican cosmology and ideology and, as such, cannot be written off as simply a local or an idiosyncratic development.

The studies presented in this volume also clearly indicate the "conservation and diffusion of a wide range of divinatory practices" across time (Treviño 2001: 61) and offer examples of how analogical data can inform our interpretations of the archaeological past. We would note that these contributions treat events that range from remote antiquity to the present day. The persistence of caves

in metaphor and belief in Mesoamerica is a critical element for both historical and archaeological understanding of how landscapes integrate into cosmology and worldview. They provide plausible examples of the continuities in symbolic systems that have endured for at least three thousand years (Gossen 1986; Hunt 1977:258–259).

Today, caves are seen by most Mesoamerican people as points of emergence and refuge in creation myths, as avenues of communication with revered ancestors, and as feared places where human agency can produce uncertain consequences (Carlson and Eachus 1977:38; Heyden 1975; Thompson 1970:367; Vogt 1969:302, 303, 387; Vogt 1981; Wilson 1995:71–73). This was also true in the historical past. The seventeenth-century Kaqchikel (Cakchiquel) manuscript *Annals of the Cakchiquels* refers to Xibalbay as an underground kingdom of great riches and power (Recinos and Goetz 1953:45–46). Cenotes, water-bearing caves, and wells served as boundary markers on colonial maps and were marked as such with crosses (Marcus 1993:Fig. 5; Roys 1943:Fig. 1 and 176–190). The Florentine Codex states that, among the Nahua, the dead—accompanied by offerings of pottery, paper, incense, and cloth—and a little yellow dog passed through a place "where the mountains come together" on the way to Mictlan (the Underworld). While this was happening to the soul, the body was burned and placed in a hole dug by men but called a cave (Sahagún 1952:40–42; also see Sullivan 1972). Sahagún (1963:275–279) further lists eight types of caves that were socially significant to the Aztec. These are discerned both by physical characteristics (size, number of passages, presence of water, geological formation) and by function (spying place, terrifying place, place of the dead, place of darkness). The research presented in this volume leads us to believe that cave studies offer a rare opportunity to use the historical present as a window into the less-clear past and to reveal the past in modern thought and practice.

This continuity is particularly important to ongoing archaeological debates. Archaeology has struggled for a century to find ways of approaching prehistoric ideology, so it is ironic that there has been so much resistance to recognizing this breakthrough. Many archaeologists' resistance to the cave literature can be traced directly to the heavy materialist bias of mainstream processual archaeology. The implicit model is an ecological variant of "economic man," in which important decisions are motivated primarily out of concern about maximizing ecological resources, production, and economics. Added to this, the atheistic or nontheistic personal outlook of most archaeologists may contribute to the dismissal of values that they do not share. When these two aspects are combined, it would be difficult to find a more culture-bound and inappropriate model to apply to a preindustrial, non-Western, agrarian people. Ethnography provides a far more complex model of human motivation that is grounded in groups that

are historically connected to those whom archaeologists study. These sources underscore the importance of caves for real people.

Caves represent the optimal physical spaces in which to attempt reconstruction of Pre-Columbian Mesoamerican religions. Belief systems are difficult to detect in the archaeological record, and even more difficult to interpret. However, the discussion of ritual or religious activities based on material remains is not impossible, especially in contexts where religious ritual activities are clearly suspected or known. Ethnography can inform these discussions, especially in the context of what religious specialists do, rather than the elicitation of belief systems. By more clearly elucidating the roles of contemporary and historical ritual specialists, it becomes easier to understand how these types of individuals may have acted in prehistoric societies.

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