

# Sacred Secrets of the Caves

## Archaeologists go underground for enlightenment on ancient Maya

By BRUCE BOWER

*Cave of the Witch, a site of modern Maya rituals, opens onto Guatemala's Lake Atitlan.*

Photos: J. Brady

The Classic era of Maya civilization, from A.D. 250 to A.D. 900, has yielded majestic remains that jut out of the tropical forests of southern Mexico and Central America. At several dozen major Maya settlements, stairways run up the sides of massive temples, and inscribed stone monuments recount the histories of royal families and their bloody escapades in warfare. Immense plazas, elaborate buildings reserved for powerful officials, and ball courts on which some type of organized game was played appear as regularly as shopping malls in suburban neighborhoods.

Yet new insights into the religious beliefs and economic practices of the Classic Maya may lie beneath the surface of their imposing structures—in caves. Ongoing archaeological investigations suggest that ancient Maya settlements were strategically placed on top of and around numerous caves, both natural and man-made, and that these caverns served as landmarks of political power and spiritual meaning.

Caves located in crucial spots sanctified each Maya site and served as central points in a "sacred landscape," proposes archaeologist James E. Brady of George Washington University in Washington, D.C. Kings and nobles used these subterranean spaces in ways designed to fortify

their hold on power, Brady suspects.

Moreover, evidence indicates that shamans or other spiritual authorities conducted elaborate rituals in many caves. The ancient Maya also made small- and large-scale pilgrimages to caves. Local economies apparently adapted to



*Pottery found in a Dos Pilas cave exhibits painted designs.*

and thrived on the pilgrim trade, suggesting that religious and economic life were closely entwined during the Classic era.

"Caves give us windows to look at Classic Maya religious beliefs and to reconstruct ritual practices with concrete data," Brady says. "Archaeology tends to concentrate solely on material finds and has often downplayed their connection to religious life."

Maya cave archaeology has attracted systematic research only in the past decade. Prior to that, several investigators had theorized that some Classic caves had been sites of ritual activity directed by shamans or priests, but the nature of these ceremonies and their relationship to the wider realm of religious, political, and economic life remained largely unknown.

Brady and several colleagues described their most recent cave discoveries and offered an emerging perspective on their significance in Classic Maya society at the annual meeting of the American Anthropological Association, held in November 1997 in Washington, D.C.

Historical and ethnographic accounts have long noted that Maya groups, including those still in existence, regularly conduct ritual activities in caves near their communities. Maya religion focuses strongly on the earth, Brady asserts. Caves, often in conjunction with mountains and water, embody the earth's fundamental power and lie at the center of a four-cornered universe. Maya caves frequently contain cenotes, openings to underground water sources that further establish the cave's sacred status.

Many modern Maya settlements examined by ethnographers are built near



*Modern Maya pilgrims stand near a cave opening, bathed in the haze of burning resin, as they conduct a ceremony.*

sacred caves, Brady notes. Each cave has a name that the adjoining community adopts. In one region of Guatemala, residents venerate and care for sacred crosses that they place in caves.

Large groups of Tzoltzil and Yucatec Maya regularly go on pilgrimages to a series of caves and cenotes.

Nearly a decade ago, Brady reported uncovering pottery, bone needles, obsidian blades, and other artifacts in a cave at Naj Tunich, a Classic site in Guatemala. Traditional thinking held that such a large number of remains could only have been left by people who lived in the dank cavity for at least short periods.

Brady decided to interpret the finds from a different perspective. He suggested that at Naj Tunich and throughout Classic Maya society, shadowy cave mouths had hosted periodic religious ceremonies led by ritual specialists and attended by crowds bearing offerings. Spiritual authorities and their assistants negotiated the inner recesses of caves, in his view, carrying the ritual tools of their trade.

At first, Brady's ideas generated little excitement among Maya investigators. However, he got a huge boost in 1990 when he was invited to join the Petexbatun Regional Archaeological Project by its director, Arthur Demarest of Vanderbilt University in Nashville. Investigators had found several caves strategically located within Dos Pilas, a site in Guatemala that flourished toward the end of the Classic era. After nearly getting lost in the entrails of a Dos Pilas cave that he tried to explore on his own, Demarest called in Brady to

conduct a survey of the caves in the area.

Brady assembled a team of investigators that included seasoned cave explorers known as speleologists, a term intended to distinguish them from more casual cave explorers, or spelunkers. For four field seasons, a rotating group of speleologists spent hours at a time climbing and repelling into Dos Pilas' dark, muddy recesses.

They eventually established that there are at least 22 caves, with underground passages extending about 7 miles, in and around the site. Major structures were aligned with caves that the former inhabitants had imbued with deep meaning and power, according to Brady, who described this research in the September 1997 *AMERICAN ANTHROPOLOGIST*.

For example, an almost 1-mile-long cave passes directly beneath the huge El Duende Pyramid, a temple built on top of a hill. Recent sinking of the earth beneath the structure offered excavators their first peek at the cave's entrance. An underground lake, the largest body of water in the Dos Pilas area, lies inside.

The ancient Maya knew that a cave existed under the hill, Brady argues. They even named the temple after the cave's water source, the El Duende River. Abundant artifacts and pieces of human bone in the cave attest to its regular ritual use by Dos Pilas residents, he says.

Another hilltop building, known as the Bat Palace, contains a shrine that covered the mouth of an adjoining cave. A passageway in this cave connected the Bat Palace, which served as the political center of the site from A.D. 725 to A.D. 761, to the El Duende Pyramid cave.

The last two kings of Dos Pilas appropriated the sacred power of a large hill with a cave running through it by building the Bat Palace there and aligning its features with the axis of the cave, Demarest proposes.

"After some initial doubts, I'm now convinced that [Brady's] right about the central role of caves in site placement, building alignment, and Maya sacred geography," he says.

**B**rady expects that caves will be discovered at every major Classic Maya site, including those located in areas devoid of the limestone that formed natural caves at Dos Pilas.

Man-made caves have been discovered at a number of Maya sites and at non-Maya locations from the same period in central Mexico, Brady notes. The practice of incorporating caves into settlement layout appears as early as A.D. 100 and continues to the time of Spanish conquest, he maintains.

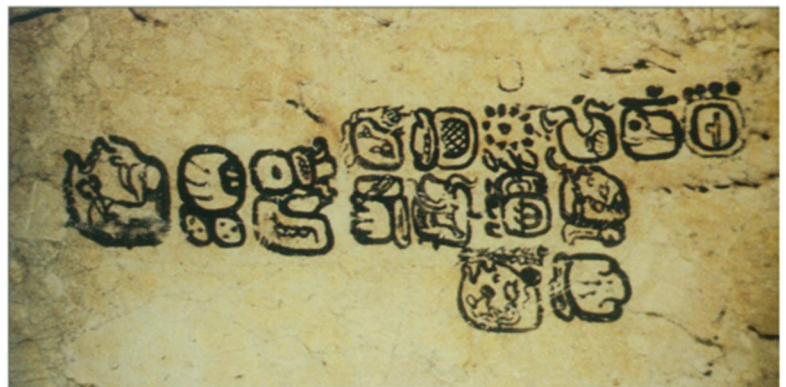
This architectural imperative apparently reflected the importance of underground spiritual activities during the Classic era. Accumulating evidence raises the likelihood that shamans took charge of cave rituals, contends Keith Prufer of Southern Illinois University at Carbondale. An archaeological project in the Maya Mountains of southern Belize has located nearly 2 dozen caves containing evidence of small group ceremonies in deeply recessed chambers; carved blades and other specialized artifacts suggest that shamans were present.

Three of the caves, which contain material from throughout the Classic period, hold stools or benches of a type still used by Maya shamans, says Prufer. Historical accounts and Classic Maya hieroglyphics also identify shamans as the owners of these items, which were believed to rest between the surface world and the underworld.

Cave investigations conducted independently by Prufer and Brady have uncovered numerous pieces of rock crystal, which both investigators suspect were used by shamans in ritual ceremonies. The ethnographic record documents crystal use by shamans throughout the area inhabited by modern Maya groups, often in ceremonies designed to heal physical ailments or to foretell the future.

"The documentation of crystal use is the first step in trying to isolate the presence of ancient shamans in these caves," Brady says.

Preliminary data also suggest that Maya pilgrims in the Classic era visited caves they held sacred. Naj Tunich has hieroglyphic emblems of several other



*Hieroglyphic writing at Naj Tunich cave records ancient pilgrimages of important persons.*

major centers that were located as many as 40 miles away. It also contains large numbers of ceramic vessels that span the Classic period. These vessels have a common chemical composition, indicating that they originated in the immediate Naj Tunich vicinity, Brady notes. Pilgrims probably bought the items upon arriving at the site and placed them in



Ritual offerings found in a cave at an ancient Maya site include pottery (above), a ceramic whistle in the form of a warrior (center), and a hand carved from bone (lower right).

the cave as ritual offerings, he suggests. Many modern Maya follow the same practice today. Hundreds of millions of people in Central America undertake pilgrimages each year, although few scientists have examined this phenomenon. Many caves in Belize's Maya Mountains seem to have drawn ancient visitors who left offerings, reports Philip Reeder, a physical geographer at the University of Nebraska at Omaha. Over the last decade, Reeder and his coworkers have explored about 150 caves, many of which have multiple levels separated by

vertical drops of 50 to nearly 200 feet. The Maya often threw pottery, stone implements, and other items down the face of these chasms, Reeder says. Artifacts accumulated on the floors of lower levels in heaps up to 20 feet high. Pottery in some caves exhibits stylistic links to Classic-era sites located up to 10 miles away, he notes. Religious pilgrims also appear to have trekked to Dos Pilas' caves, according to Brady. A substantial portion of the artifacts found at the site come from its caves, including painted pottery, delicate stone blades, and other ritual objects. Regular visits by pilgrims willing to pay for ritual offerings, food, and temporary shelter undoubtedly had a major impact on local economies in ancient Maya society, Brady argues. In an atmosphere of religiously inspired commerce, the production of ceremonial items and long-distance trading for some of the raw materials of religious practice, such as feathers and jade, became Maya growth industries.



at the University of Cincinnati who investigates Classic-era water storage techniques, regards Maya caves with interest but sees no solid evidence that they held any specific relationship to ancient religious, political, or economic life. Wendy Ashmore, an archaeologist at the University of Pennsylvania in Philadelphia who studies the organization of Maya sites, offers a more positive review. Compelling evidence exists for the influence of caves on the structural layout of ancient Maya settlements, as well as for ritual activity in caves, Ashmore asserts. "Archaeologists are just beginning to focus on how caves fit into the everyday lives and ritual cycles of the ancient Maya," comments archaeologist Patricia McNany of Boston University. A number of caves located near the Xibun River in central Belize have yielded preliminary evidence of ancient Maya rituals that involved the rain god Chac, McNany says. Unpredictable flooding of the river into adjacent agricultural fields may have spurred residents to seek Chac's help, she suggests.

**M**any traditional Maya researchers express skepticism about, or outright rejection of, Brady's theories. Vernon Scarborough, an anthropolo-

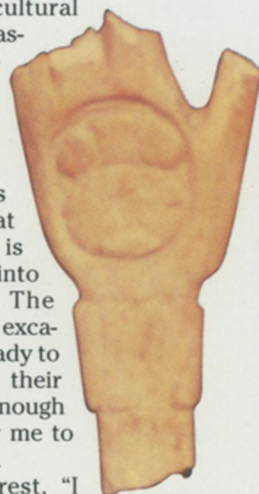
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Modern Maya ritual practices have much in common with what researchers like Brady have discovered about the Classic-era belief system, McNany adds. It appears that the Maya have maintained a core of religious beliefs and practices over at least the past 2,000 years, she maintains. "Changes in the cultural meaning of religion probably occurred at a much slower pace in the past, prior to the emergence of industrialized societies," Brady theorizes.

Much scientific debate surrounds the extent to which cultural practices of the Classic-era Maya and other ancient societies changed over time (SN: 1/18/92, p. 40).

However this thorny issue plays out, it appears that Maya archaeology is poised to plunge into cave exploration. The directors of several excavations now want Brady to delve into caves at their sites. "There aren't enough hours in the day for me to do it all," Brady says.

Comments Demarest, "I think we're seeing Maya cave archaeology develop into an important field of study right now, largely thanks to Jim Brady's work." □



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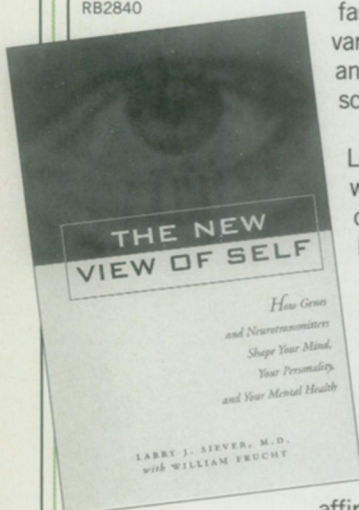
**T**he brain. It guides our actions, directs our moods, and affects the way we see our lives and the world around us—our view of *self*. But what happens when it doesn't function properly? Where are we to search for the causes of psychological disorder? How do we rediscover the self after it has become clouded by illness?

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