RESEARCH NEWS

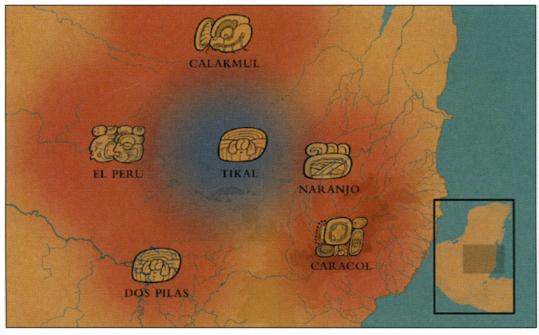
ARCHAEOLOGY

Clashing Maya Superpowers Emerge From a New Analysis

The Maya achieved the high point of their civilization more than a thousand years ago in the remote jungles of Mexico and Central America, but with every passing year their society is looking more and more like ours. As recently as 30 years ago, many archaeologists imagined the Maya as peaceful mystics, their lives centered on stately ceremonial centers where astronomer-priests interpreted the stars. But that picture faded in the 1960s and '70s as a breed of anthropologists known as epigraphers cracked the complex hieroglyphic system of Maya writing. The glyphs told a lively story of politics and warfare, and the ceremonial centers became quarrelsome city-states. Now, with a new

Martin and Grube also draw more modern parallels. Like NATO and the Warsaw Pact, each alliance was led by a dominant power: the great city of Tikal in Guatemala and an even larger (though less well-known) metropolis at the base of the Yucatán called Calakmul. These powers fought wars through proxy states and preserved the allegiance of their "vassal" city-states through force and intermarriage.

And drawing an eerie parallel to the fall of the Soviet Union, the researchers speculate that the collapse of one great alliance— Calakmul's—in the middle of the eighth century could have contributed to the political fragmentation and widespread warfare



Spheres of influence. The map, which is an enlargement of the shaded area *(inset)* including parts of the Yucatán, Guatemala, and Belize, shows the political alignments of Maya states at about A.D. 680. While Calakmul then held sway over more areas *(orange)* than Tikal, it would eventually fall to its rival.

reading of texts from sites throughout the Maya heartland in Mexico, Guatemala, and Belize, the Maya have taken another step toward modernity.

In their as-yet-unpublished analysis of these texts, Maya epigraphers Simon Martin of University College, London, and Nikolai Grube of the University of Bonn in Germany see many of the individual citystates tied in two large, durable alliances. Each one, they say, resembles the loose-knit "empires" documented among the Aztecs and other Mesoamerican peoples by 16thcentury Spanish and native chroniclers. But that followed. If they are right, Martin and Grube will have shed light on one of the enduring mysteries of Classic Maya civilization: its collapse in about A.D. 800.

Many of Martin and Grube's colleagues say that as they learned of the proposal at conferences and in the letters and manuscript drafts the two have circulated, they realized it makes sense of previously mysterious clues in the Maya texts. "I regard it as a seminal paper—a watershed effort in our field," says archaeologist David Freidel of Southern Methodist University, who plans to collaborate with Grube. "Up to now we've dealt with hieroglyphics as if they were referring mostly to local events," he explains, but by relating wars and marriages to a larger pattern of alliance building and superpower rivalry, Martin and Grube have opened the way to reading the Maya texts as a single history.

Other scholars remain less enthusiastic. One is epigrapher Stephen Houston of Brigham Young University in Provo, Utah. Houston thinks Martin and Grube greatly exaggerate the authority of their "superpowers." Still, he concedes that "there's no doubt that [their model] is useful" for understanding Maya political life.

The fact that Mayanists are now arguing about the nature and importance of large political structures—not about whether they existed—shows how much the consensus has shifted in the last year or two, as Martin and Grube's ideas made the rounds. Previously, says archaeologist Arthur Demarest of Vanderbilt University in Nashville, Tennessee, leader of an important project centered

on the site at Dos Pilas in Guatemala, most scholars saw Maya political organization as a mosaic of weak city-states "no more than a day's walk in radius."

That idea was one of the first legacies of the decipherment of Maya script. Epigraphers recognized certain glyphs as royal titles, and they found that each of these "emblem glyphs" appeared most often in inscriptions from a small region centered on a particular city. "Every city seemed to have its own king," says Grube, with no indication of any higher authority.

A few Mayanists had advocated the idea of larger states, but they made little headway against this dominant view. One such researcher, Richard Adams of the University of Texas, San Antonio, argued in 1985 that the great disparity in size among the Maya centers marked some of them, such as Tikal, as capitals of larger regions. By tracing similarities in pottery style and architecture be-

yond individual sites, he says, he was able to draw the boundaries of five or six well-defined states. But without the force of the texts behind his interpretation, it failed to convince many of his colleagues.

Troubling clues. Still, scholars deciphering the histories recorded on the carved stone slabs called stelae and on temple reliefs were aware that some city-states had stronger ties to others than the picture of independent city-states seemed to allow. "These things on the monuments were troubling," says Demarest, "but we sort of ignored them." In inscriptions from Dos Pilas, he says, "there's always a presence of Calakmul." And other researchers had seen hints that Calakmul enlisted allies in its wars against Tikal. But most Maya scholars saw these links as temporary strategic alliances not lasting political formations. "When you study just one city, you don't get the pattern," says Grube. "We took data from all the Maya lowlands and put them together."

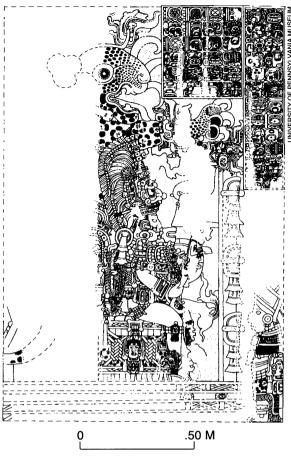
An early clue that more formal associations existed came in the late 1980s from a glyph that had been translated roughly as "by the doing of." While working independently, Martin and Grube spotted this "agency" glyph in texts from several cities, implying that key events there had been brought about by outside agents. For example, Martin found that it linked the accession of a ruler of El Peru, a city in Guatemala, to the emblem glyph of Calakmul. And in early Classic texts from Caracol in Belize, Grube saw much the same pattern: agency glyphs implying, he says, that "the first kings of Caracol acceded under the auspices of Tikal."

Then, about 3 years ago, Martin and Grube joined forces and widened their study, finding evidence of Calakmul and Tikal's pre-eminence throughout the lowland

Maya region. Much of it rests on another glyph, which means "the lord of." One example is a hieroglyphic stairway from Dos Pilas, which Houston, epigrapher David Stuart of Harvard University, and others had deciphered. It identifies the ruler of Calakmul as lord of the local king, known as ruler 1. Another comes from the city of Naranjo: a stela that names Calakmul's ruler as the lord of the Naranjo king, Smoking Squirrel. "We had really figured out that this pattern was important in 1992," recalls Grube.

What they saw was two far-flung networks that included cities adjacent to Tikal and Calakmul but also extended to distant satellite states. "By A.D. 730," says Grube, "it seems that there was not one single state in the Maya lowlands that was not in a political sphere." Calakmul's domain included a ring of cities near Tikal, among them Dos Pilas, El Peru, and Naranjo. Tikal's smaller sphere included other neighbors and such distant sites as Palenque, a sometime ally at the western edge of the Maya region.

The assigning of individual cities to these two huge blocs isn't just an academic exercise, its authors say: It can explain many twists and turns in Maya history. Although vassal kings generally ruled without overt interference, the alliances shaped the city-



Spoils of war. This carved wooden lintel from Tikal records a key victory over its rival Calakmul and capture of Calakmul's "giant jaguar" war deity.

states' relations with one another. A stela from Caracol, for example, tells how that city's forces overthrew Smoking Squirrel's predecessor at Naranjo, apparently at Calakmul's behest. The war, Martin and Grube suggest, was a proxy campaign launched by Calakmul because the Naranjo ruler had tried to switch his allegiance to Tikal.

Through such maneuvers, say Martin and Grube, Calakmul held the upper hand over Tikal for more than 150 years, from the middle of the sixth century through the early eighth century. "The evidence seems to indicate that Calakmul tried to unify the whole lowlands" into a network of states under its sway, says Martin. But somehow, it overreached. "Around 740 or 750, the Tikal kings had acquired enough power to beat Calakmul" in a series of conflicts, says Grube. And after that date, references to Calakmul—which often included a glyph that translates roughly as "the unifier"—disappear at distant sites.

Decline and fall. Those defeats may have opened the way for the collapse of the Maya civilization that followed, Grube speculates. He proposes that Calakmul's decline, along with Tikal's inability to consolidate its hold over Calakmul's former territory, may have helped trigger political fragmentation. In a process traced by other researchers, emblem glyphs proliferated through the Maya lowlands, indicating the rise of scores of small city-states claiming independence. With the fragmentation came violence and social breakdown. By the eighth century, says Demarest, the Dos Pilas region had become "a Road Warrior landscape," with villages transformed into fortresses and a precipitous drop in population.

In Dos Pilas, at least, Grube may be on the right track, says Demarest. "It could be that the power and prestige of the king of Dos Pilas depended on the power and prestige of Calakmul," he says. But Grube and Martin agree with other Maya scholars that the breakup of the alliances may not have been the only factor—or even the primary one in the collapse of classic Maya civilization. As Norman Hammond of Boston University puts it, the political collapse may be just a manifestation of "a longer term malaise connected to an overstressed environment and a burgeoning population."

Indeed, some Maya scholars say Martin and Grube—like Calakmul when it went for a regional synthesis—have overextended themselves. "There's no question that there were some overarching hierarchies in the political organization of the Maya," says Houston, who adds that for several years, he and Stuart have been seeing some of the same patterns, although they never published their observations. "Sites like Tikal and Calakmul were enormously influential. … But I don't believe that all dynastic interactions—marriage, warfare, and so on—can be reduced to [superpower relations]."

Stuart adds that Martin and Grube may be taking the texts too literally. "The texts always leave some room for play—they're not terribly explicit about these relationships." A text might declare that one lord was seated on his throne "by the doing" of another. "But does this reflect a lot of reality on the ground." It's possible, he says, that the apparently subordinate ruler was simply trying to wrap himself in the prestige of the more powerful state. Stuart adds that so far, there's little evidence of the long-distance tribute flows and coercive force that would have cemented Martin and Grube's superpower blocs.

Martin and Grube respond that if not for eyewitness testimony, the same could have been said about the Aztec empire, which they believe the Maya alliances resembled. Still, Demarest agrees that it's hard to gauge the authority of these political structures. "Alliances, leagues, macrostates, tyrannical empires—where exactly [these structures] fall I can't say." But he and many of his colleagues no longer doubt their importance. "The whole field," he says, "has suddenly been jerked into reality."

-Tim Appenzeller