Claim of Oldest New World Writing Excites Archaeologists

A stone block uncovered in a Mexican quarry provides dramatic evidence that the ancient Olmec people developed a writing system as early as 900 B.C.E., according to seven Mesoamerican scholars writing in this week’s issue of *Science* (p. 1610). That makes the block’s 62-sign inscription by far the oldest writing discovered in the New World and hints at surprising complexity in a culture that may have laid the foundation for the Mayan and Aztec empires encountered by the Spanish a millennium and a half later. “It’s a jaw-dropping find,” says Brown University anthropologist and co-author Stephen Houston. “It takes this civilization to a different level.”

Other specialists agree. “This is an exciting discovery of great significance,” says anthropologist Mary Pohl of Florida State University in Tallahassee. Even skeptics say they are convinced that the signs represent true script. But controversy remains over the block’s dating and implications. And the inscription—which can’t yet be read and seems unrelated to later Mesoamerican scripts—is unlikely to resolve the heated debate over whether the Olmec were the dominant culture of their time or one of many societies that shaped Mesoamerica.

The Olmec civilization appeared on the coast of the Gulf of Mexico around 1200 B.C.E. and quickly flourished thanks to rich soils and high rainfall that allowed intensive maize production. The first center, San Lorenzo Tenochtitlán, was abandoned about 900 B.C.E. just as another one at nearby La Venta arose. By 400 B.C.E., the Olmec culture had largely vanished. During that half-millennium, Olmec fashions spread around Mesoamerica, although the extent of their influence remains contentious. Along with creating a sophisticated calendar, the Olmec carved glyphs as early as the San Lorenzo phase. Later glyphs found during the La Venta period provide more extensive evidence of iconography, but scholars are divided over whether those could be classified as writing (Science, 6 December 2002, p. 1872).

Road builders quarrying fill from an ancient mound at Cascajal, outside San Lorenzo, found the new block with pottery fragments and figurines. The local authority on cultural materials stored the objects in his home and alerted the paper’s first two authors, anthropologists Maria del Carmen Rodríguez Martínez and Ponciano Ortiz Ceballos of the Centro del Instituto Nacional de Antropología e Historia. The block was then examined by the entire team this spring. Chemical analysis shows an ancient patina in the stone’s incisions, which were made with a blunted blade to make outlines and a sharper one to make cuts within the signs.

The authors argue that the block is roughly the same age as the artifacts found with it, which they say date to the latter part of the San Lorenzo phase; they also note that the site is close to San Lorenzo itself. “There is quite a good deal of evidence on the probable context,” says Pohl, who accepts the conclusion. But those claims don’t wash for some other researchers, who note that all of the artifacts were found out of context. “Once I owned a home near to Lincoln’s log cabin, but that proximity didn’t date my house to the same period,” says David Grove, an emeritus anthropologist at the University of Florida, Gainesville. “Likewise, the literally mixed bag of shards kept by village authorities doesn’t help at all to date the piece.”

Adds John Clark, an anthropologist at Brigham Young University in Salt Lake City, Utah: “Is the block associated with San Lorenzo or La Venta? We can’t answer that definitively.” Like Grove, he favors a later date, when Olmec glyphs became more common. Whatever the date, he and Grove agree that the inscription qualifies as writing and so is a dramatic find. A few of the signs are repeated, and there is a pattern of variable as well as short and repeated sequences. “The Cascajal block conforms to all expectations of writing,” the authors say. They argue that such sophistication reveals “a new complexity to this civilization.”

Houston goes a step further, saying, “We’re looking, possibly, at the glimmerings of an early empire.”

The script’s influence on later systems is unclear, however. The text runs horizontally rather than vertically as in later Mesoamerican scripts. Nor can the writing be linked with a later writing system, Isthmian, which emerged around 500 B.C.E. and has radically different signs. Nevertheless, the authors conclude that “the clear linkage of the script to the widely diffused signs of Olmec iconography” argues in favor of a widespread system that died out before others appeared in succeeding centuries—perhaps as happened to one of the world’s first writing systems, the Indus script, which vanished shortly after 2000 B.C.E. Like Indus script, the newly discovered Olmec writing remains undeciphered. “We would need a Rosetta stone,” says Houston. Clark hopes that the Cascajal block will encourage researchers to go back to the site. “Now we need to dig some control pits and do some real archaeology,” he says.

—ANDREW LAWLER