



Writing on Stone May Be Oldest in the Americas

By JOHN NOBLE WILFORD
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A stone slab found in the state of Veracruz in Mexico bears 3,000-year-old writing previously unknown to scholars, according to archaeologists who say it is an example of the oldest script ever discovered in the Western Hemisphere.

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Courtesy of Stephen Houston

Sixty-two distinct signs are inscribed on the stone slab, which was discovered in the state of Veracruz in Mexico.

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were known mainly for the colossal stone heads they created and displayed at monumental buildings in their ruling cities.

The inscribed stone slab was discovered by Maria del Carmen Rodriguez of the National Institute of Anthropology and History of Mexico and by Ponciano Ortiz of Veracruz University. The archaeologists, who are husband and wife, are the lead authors of the report of the find, which will be published Friday in the journal Science.

The signs incised on the 26-pound stone, the researchers said in the report, "link the Olmec to literacy, document an unsuspected writing system and reveal a new complexity to this civilization."

Noting that the text "conforms to all expectations of writing," the researchers wrote that the sequences of signs reflected "patterns of language, with the probable presence of syntax and language-dependant word orders." Several paired sequences of signs, scholars said, have prompted speculation that the text may contain couplets of poetry.

Experts who have examined the symbols on the stone slab said they would need many more examples before they could hope to decipher them and read what is written. It appeared, they said, that the symbols in the inscription were unrelated to later

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The order and pattern of carved symbols appeared to be that of a true writing system, according to the Mexican scientists who have studied the slab and colleagues from the United States. It had characteristics strikingly similar to imagery of the Olmec civilization, considered the earliest in pre-Columbian America, they said.

Finding a heretofore-unknown writing system is a rare event. One of the last such discoveries, scholars say, was the Indus Valley script, identified by archaeologists in 1924.

The inscription on the stone slab, with 62 distinct signs, some of them repeated, has been tentatively dated to at least 900 B.C., and possibly earlier. That is 400 years or more before writing had been known to exist in Mesoamerica, the region from central Mexico through much of Central America — and by extension, to exist anywhere in the Hemisphere.

Scientists had not previously found any script that was unambiguously associated with the Olmec culture, which flourished along the Gulf of Mexico in Vera Cruz and Tobasco well before the Zapotec and Maya people rose to prominence elsewhere in the region. Until now, the Olmec

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Mesoamerican scripts, suggesting that this Olmec writing might have been practiced for only a few generations and may never have spread to surrounding cultures.

Stephen D. Houston of [Brown University](#), a co-author of the report and an authority on ancient writing systems, acknowledged that this was a puzzle, and would probably be emphasized by some scholars who question the influence of the Olmec on the course of later Mesoamerican cultures.

But Dr. Houston called the discovery tantalizing, saying, "It could be the beginning of a new era of focus on the Olmec civilization."

Other participants in the research include Michael D. Coe of [Yale](#); Karl A. Taube of the [University of California](#), Riverside; and Alfredo Delgado Calderon of the National Institute of Anthropology and History.

Mesoamerica researchers who were not involved in the Veracruz discovery agreed that the signs appeared to be a true script, and that the slab could be expected to inspire more intensive study of the Olmecs, whose civilization emerged about 1200 B. C. and had all but disappeared by 400 B. C.

In an accompanying article in Science, Mary Pohl, an anthropologist at [Florida State University](#) who has excavated Olmec ruins, was quoted as saying, "This is an exciting discovery of great significance."

A few other researchers were skeptical of the dating of the inscription, noting that the stone was uncovered in a gravel quarry where it and other artifacts were jumbled and may have been out of their original context.

The discovery team said that ceramic shards, clay figurines and other broken artifacts accompanying the stone appeared to be from a particular phase of Olmec culture that ended about 900 B. C. But they acknowledged that the disarray at the site made it impossible to determine whether the stone had originally been in a place relating to the governing elite or to religious ceremony.

Richard A. Diehl, a specialist in Olmec research at the [University of Alabama](#) and another co-author of the report, said, "My colleagues and I are absolutely convinced the stone is authentic."

The stone slab first came to light in 1999, when road builders digging gravel came across it among debris from an ancient mound at Cascajal, a place the archaeologists called the "Olmec heartland." The village is on an island in southern Veracruz about a mile from San Lorenzo, where ruins have been found of the dominant Olmec city, which stood from 1200 B. C. to 900 B. C.

When the stone surfaced, Dr. Rodriguez and Dr. Ortiz were called in, and quickly recognized the potential importance of the find.

Only after six years of further excavations searching for more writing specimens, and comparative analysis with previously known Olmec iconography, did the two archaeologists invite other Mesoamerica scholars to join the study earlier this year. Though some other reported examples of Olmec "writing" in recent years failed to stand up to scrutiny, the team concluded that the Cascajal stone, as it is being called, was the real thing.

The tiny, delicate symbols are incised on the concave top surface of a block of soft stone that measures about 14 inches long, 8 inches wide and 5 inches thick.

Dr. Houston, who was a leader in deciphering Maya writing, examined the stone looking for clues that the symbols were true writing and not just iconography unrelated to a language. He said in an interview that he detected regular patterns and order, suggesting "a text segmented into what almost look like sentences, with clear beginnings and clear endings."

Some of the pictographic signs were frequently repeated, Dr. Houston said, particularly ones that looked like an insect or a lizard. He suspected that these might be signs alerting the reader to the use of words that sound alike but have different meanings - as in the difference between "I" and "eye" in English.

All in all, Dr. Houston concluded, "the linear sequencing, the regularity of signs, the clear patterns of ordering, they tell me this is writing. But we don't know what it says."

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Courtesy of Stephen Houston

Sixty-two distinct signs are inscribed on the stone slab, which was discovered in the state of Veracruz in Mexico.

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Western Hemisphere's oldest writing

Known as the Cascajal block, the slab of serpentine was discovered in the Mexican state of Veracruz. It contains 62 symbols carved 3,000 years ago by artisans of the Olmec civilization, which preceded the Maya and Aztecs.

The Cascajal block



Stephen D. Houston

The stone slab: Found in the late 1990s by road workers, it is about the size of a legal notepad.

Source: Science

MARK HAFER Los Angeles Times

Western Hemisphere's oldest writing


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Earliest writing in Americas found

Carvings on a stone block plucked from a rubble pile by road builders represent a previously unknown writing system dating back nearly 3,000 years, and possibly the earliest written language in the Western Hemisphere, say researchers

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Carvings on a stone block plucked from a rubble pile by road builders represent a previously unknown writing system dating back nearly 3,000 years, and possibly the earliest written language in the Western Hemisphere, say researchers.

Based on other artifacts found with the inscribed block, Mexican and U.S. archaeologists date it to around 900 B.C., about 400 years earlier than any example of writing from the Olmec culture seen before.

The Olmec civilization, which flourished along the Gulf of Mexico coast northwest of the Yucatán Peninsula from about 1200 B.C. until 400 B.C., is considered by many scholars to have been the first great culture of Mesoamerica. But others consider it to be just one of several advanced societies in the region around the same time.

Olmecs, in addition to creating a sophisticated numerical calendar, elaborate artwork that includes massive carved heads and cities built around ceremonial pyramids, established themes in religion and ritual that endured until the Spanish toppled the descendant Aztec empire 2,000 years later.

"This block shows a whole new dimension to the society. It's a jaw-dropping find," said Stephen Houston, an anthropologist at Brown University in Providence, R.I., whose specialty is ancient writing systems. He is a co-author of a report on the discovery published Friday in the journal *Science*.

"This takes this civilization to a different level, and opens up the possibility that they used accounting and recordkeeping."

The block, about as long and wide as a modern legal pad and as thick as a major metropolitan city phone book, is made of the mineral serpentine.

Workers in the state of Veracruz found the stone in a gravel quarry along with pottery shards and figurines that allowed Mexican archaeologists led by Carmen Rodríguez and Ponciano Ortiz to set an older date for the writing. Previous examples of Olmec symbols had been dated only to a phase of the civilization that thrived about 400 years later.

Although the dating of the artifact from companion material that had also been moved around is controversial, even skeptics of its age agree the stone represents a dramatic new example of Olmec writing. The carved text consists of 62 glyphs, or signs, some of which are repeated up to four times. Because of the distinct elements, patterns of sequencing and consistent reading order, the researchers write that the text "conforms to all expectations of writing."

Five sides on the block are rounded outward, while the surface with the text curves inward. The researchers believe that indicates the block had been carved repeatedly and erased - a discovery Houston said is "unprecedented."

Several pairs of sequences of signs also led the scientists to conclude that the text has poetic couplets, which would be the earliest example of this type of expression found in Mesoamerica.

Of course, no one knows just what the symbols mean yet. They don't match any writing from later Olmec times.

But Houston and his colleagues are convinced that more examples can be found and eventually translated.