

Mexico's ancients depicted an anatomically correct heart

Olmec ceramic vessel predates known images by 2,500 years

BY DAVID KINNEY, Associated Press

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PHILADELPHIA -The cardiologist, who's also a published art history buff, reached Exhibit No. 251 and felt his heart jump.

Before him sat a ceramic vessel, just 7 inches tall, crafted 3,000 years ago. The male figurine wore a helmet of hair, a flat nose and fat lips. Its body appeared split down the middle, and three large arteries shot from its shoulders.

"My God," Dr. Gordon Bendersky said to himself that day in The Art Museum at Princeton University. "That's the oldest image of the heart."

Research spanning one year, 300 hours and thousands of pages confirmed the theory for Bendersky. The Olmecs, ancient predecessors to the Mayans and Aztecs of early Mexico, molded the earliest known anatomically correct image of the heart, he wrote recently in the journal *Perspectives in Biology and Medicine*.

The vessel, believed to have been found in Las Bocas, a city in south-central Mexico, includes a pulmonary artery, an aorta and a superior vena cava. It even features an interventricular sulcus, the crease dividing the left ventricle from right.

What makes the discovery so unusual is that the Olmecs' relatively sophisticated version of the heart came 2,500 years before the so-called father of anatomy, a Belgian named Andreas Vesalius, wrote "Fabrica." The book, published in 1543, included what experts considered the earliest accurate images of the heart.

The Olmecs, Aztec for "people from the land of rubber, " certainly were not the only people to see a human heart in ancient times.

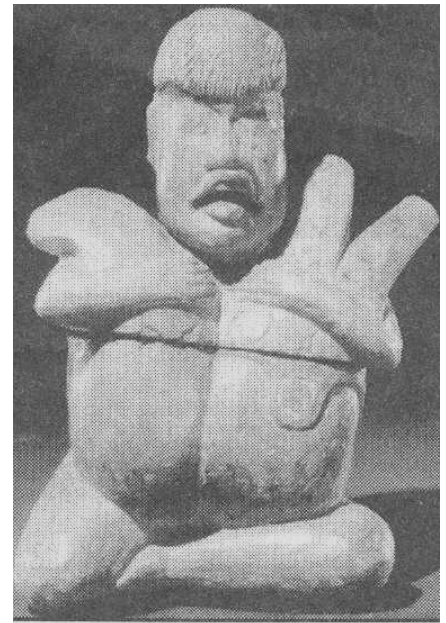
Archeologists have long known that the Mayans practiced human sacrifice, removing hearts from living people. The ancient Greeks allowed some human dissections after 400 B.C.E., breaking with a longstanding view that autopsies violated the purity of the dead body.

If the ancients ever committed an anatomically correct image of the heart to pottery or canvas or papyrus, though, their work never survived.

All that remains are symbols: a Valentine-like heart placed in an elephant's chest, Egyptian hieroglyphs depicting a heart in the shape of a vase, Roman decorations featuring hearts that would fit on today's sappiest romantic greeting cards.

Bendersky, 68, has another, still unproven theory: The clay container shows that the Olmecs sacrificed humans—perhaps infants—long before the Mayans....

Carolyn Tate, an art history professor at Texas Tech University, is unsure whether the artwork proves that the Olmecs sacrificed humans. Still, she joins other experts in acknowledging that the container, if it is genuine, is the oldest image of the heart.



This 3,000-year-old figurine features the earliest depiction of a heart, says Dr. Gordon Bendersky.

It comes from the earliest known North American civilization, scattered throughout southern Mexico and Central America from 1200 B.C.E. to 400 B.C.E.

The Olmec civilization was discovered when an engineer came upon a colossal head sculpture in the volcanic mountains of eastern Mexico. Archeologists later found dozens of the monumental statues, some weighing many tons, from Vera Cruz on the Gulf of Mexico to Guerrero on the Pacific side.

Cardiologist and art historian Gordon Bendersky, holding a book with pictures of the human heart, did hundreds of hours of research to confirm his theory about an Olmec figurine.

