

## THE RED QUEEN



**IN MANY WAYS**, ancient Maya society was similar to our own. In some ways it certainly was not. To please and nourish the gods they worshipped, rulers (who were considered descendants of the gods) and priests offered up ... human blood. Artwork left behind depicts elaborate death rituals and gruesome human sacrifices, often of children and prisoners of war.

But speaking of death, archaeologists have learned much of what they know about Maya lifestyles and history by studying the objects left in burial chambers. Because the ancient Maya believed in an afterlife, the living often outfitted the dead with things they thought would be useful on the journey to the underworld: corn dough for nourishment, carved whistles, decorated pottery and precious stones.

In 1994, a Mexican archaeologist named Fanny López found the tomb of a noblewoman buried more than 1,300 years ago in the ruins at Palenque, in southern Mexico. When she and her team carefully lifted the lid of the sarcophagus, they found a skeleton and a large collection of jewelry, jade, pearls, seashells and bone. They also found dozens of pieces of green copper malachite, which had been assembled into a stunning funeral mask (right, reassembled). Everything inside the coffin was covered with a brilliant red dust made of cinnabar (mercury sulfide) — possibly to preserve the body. Scholars think that the occupant of the Tomb of the Red Queen is Lady Tz'akb'u Ajaw. Genetic tests haven't yet found any relation to other royalty, but some researchers think she may have been the wife of Pakal the Great, who ruled Palenque during its golden age in the seventh century.



## A CODE TO CRACK



**ONLY A FEW** people in ancient Maya society could read and write, but those who could left lots of stories for future people to contemplate. They used Mayan script, also called glyphs, to write stories about gods, leaders and major events. The first outsiders to explore Maya ruins, though, couldn't understand the strange symbols they encountered on walls and pillars and in the few surviving bark-paper books. During the mid-20th century, scholars made some progress in understanding some of the more than 800 symbols. But it took an American teenager named David Stuart to break the code in the early 1980s.

Stuart became fascinated by Mayan script as a kid, while accompanying his archaeologist father on expeditions in Central America. While his father worked nearby, Stuart would take his pencils and graph paper and draw the puzzling symbols and pictures he saw on fragments of stone monuments called stelae. At home in suburban Washington, Stuart would use the time between his homework assignments to look for patterns. One day he realized that the ancient scribes were expressing certain sounds by using several different symbols. (Notice how some English words, like "faze" and "phase," sound the same, even though the letters are different.) "In a snap of the fingers it suddenly all made sense; everything was clear," says Stuart, who directs the Mesoamerica Center at the University of Texas at Austin. "I knew I was going to catch some flack, because it went against the argument that everyone accepted about how Mayan signs work. But I knew I was right."

With this revelation, scholars could now read most of the previously indecipherable text. At age 18, David Stuart became the youngest person ever to receive a prestigious MacArthur Fellowship, often known as a "genius" award. Today he continues to decipher the Mayan script that appears on monuments such as Stela 31, above, which was dedicated in A.D. 445 at Tikal.

## GLYPHS



CROCODILE



FACE



VENUS



DWARF



ENTER



AND THEN



EARTH



BIRD OF PREY



HAND



TWENTY



SHARK



BLOOD-LETTER



FOOT



NATIVE

## Archaeology

## MATH. CHOCOLATE. SACRIFICE.

DIGGING UP THE SECRETS OF THE MAYA

BY TOM CLYNES • ILLUSTRATED BY R. FRESSON

**HAVE YOU HEARD** of the ancient Maya? Their civilization began about 4,000 years ago in Mexico's Yucatán Peninsula and spread into what is now Guatemala, Belize, Honduras and El Salvador. During what archaeologists call the Classic Period — between A.D. 250 and 909 — the Maya made great advances in agriculture, writing and astronomy.

Maya kings demonstrated their power by building massive pyramids and palaces. Expert farmers fed millions of people by shaping forested hillsides into terraced fields and building complex irrigation systems. Road-builders connected sprawling cities and suburbs with paved pedestrian highways, some as wide as modern six-lane freeways.

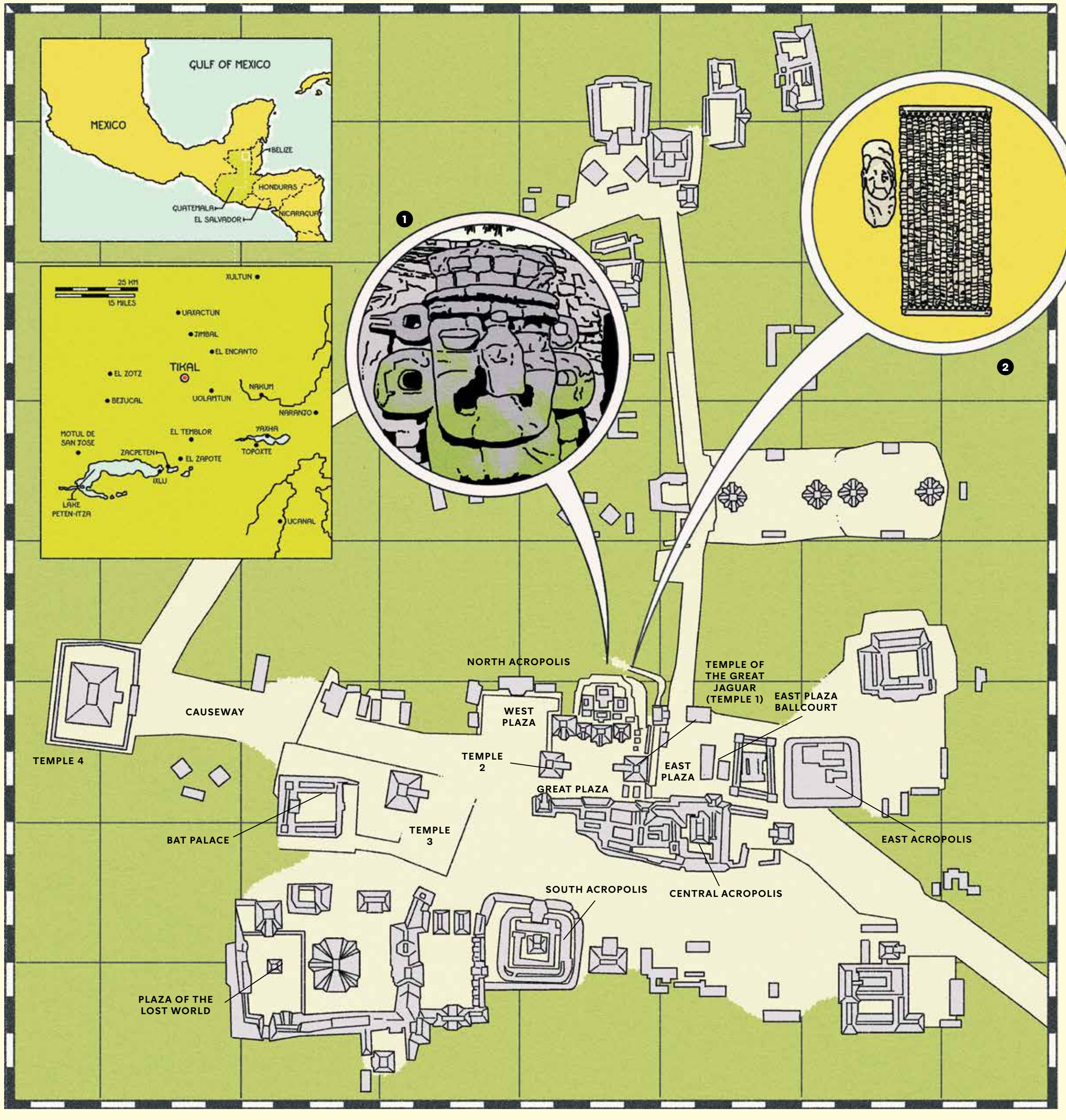
And then, suddenly, they were gone. For reasons that remain unclear, the Maya abandoned their largest cities around 1,100 years ago, and the population

plunged and scattered. Some scholars think that the Maya overused their environment until it could no longer sustain a large population. Others say that warfare among city-states may have broken down royal alliances and trade relationships until the rulers could no longer maintain power. Still others think that disease or a very long and intense drought may have devastated the region.

In any case, "now is an incredibly exciting time to be an archaeologist working in this region," says Thomas Garrison, a Maya archaeologist at Ithaca College in New York who uses a cool new technology to scan the jungles for what the Maya left behind (see "The Cities Hidden in the Jungle"). "Before, you could walk over the top of a major structure and not realize it was there. Now we have these high-tech treasure maps that are surprising us every day. The discoveries just keep coming, everywhere we look."

Much of what we know about the Maya is based on experts' hypotheses. Garrison and other researchers say they believe that the near future will bring new revelations that will change the way we view the ancient culture — a civilization that tamed the jungle and built thriving cities, then collapsed and disappeared beneath the dense forest.

**MAP:** Tikal, Guatemala, was one of many bustling cities built by the Maya, full of plazas and markets, homes and temples, tombs and ball courts. Clues about the people who lived there are everywhere, including a giant stone mask of their rain god (1) and a bracelet and pendant made out of shells found in a burial chamber (2).



## APPEASING THE GODS



**THE ANCIENT MAYA** were polytheistic, meaning they worshipped many gods, including ones they believed controlled the sun and the rain — and the realms of the dead. Many daily activities, even sports, were a way for the Maya to recognize these deities.

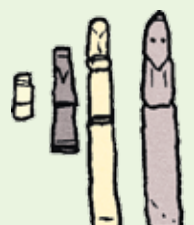
**1.** A Maya ballplayer, wearing a loincloth and a protective belt with a large, bird-shaped ornament. His big turban would help cushion his head from blows during the ballgame *pok-a-tok*, which was both a sports event and a religious activity; ceramic figurine, A.D. 600-900.

**2.** This figure is thought to be the moon goddess, worshipped by the Maya as a patron of fertility and childbirth (she's holding onto a baby here); ceramic figurine, A.D. 600-900.

**3.** Chaac, god of rain; stone figurine, 300 B.C.-A.D. 100.

**4.** Fire god; volcanic stone figurine, A.D. 250-900.

## WHAT TO THANK THE MAYA FOR



1



7



13



2



8



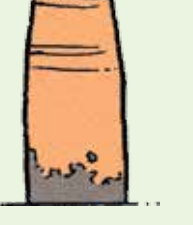
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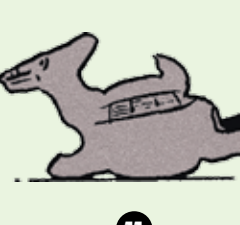
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11



17



6



12



18

**1-6: STONEWORK.**  
**7-9: INSTRUMENTS.** **10-12: CERAMICS.**  
**13-18: VESSELS**

**THE MAYA ARE** most famous for their precise observations of the moon, planets and other celestial bodies, which they used to create extremely accurate calendars. They also formulated some of the modern world's most useful and delicious things, like chocolate! Around A.D. 900, Maya cooks realized that they could grind the beans found inside cacao pods and make them into a liquid treat.

It doesn't stop there. More than 3,000 years before Charles Goodyear created his rubber tire, the Maya used natural latex, a milky fluid found in some plants, to create bouncy rubber balls. They used the balls in a violent game called *pok-a-tok*, which was played in specially built ball courts that had room for spectators who cheered and placed bets. The solid rubber balls were so heavy that players wore protective clothing to guard against injury.

The Maya were also the first ancient American society to understand and invent the number zero — a concept that made advanced mathematics and even computers possible. But one very useful thing they did not invent was the wheel. Small wheels have been found on children's toys, but adults apparently didn't realize how much wheels could have helped them move the huge stones that men carried to build pyramids and other structures. ♦