

THE ONE WHO HAMMERS



Archaeologist Marc Zender - a world renowned expert on ancient hieroglyphs - is helping to unravel the mysteries of the Maya.

BY ANDREA COOPER

Marc Zender strokes the handle of an ancient ceramic dish. It might be an odd gesture, except the handle is in the shape of an irresistibly cute peccary, something like a Central American pig.

"You see those curlicue lines?" Zender says, pointing to the rust-colored swirls on either side of the peccary's face. "Those come from the musk glands." With those curlicues of blowing wind, the artist is telling us that a peccary stinks.

The Maya probably used this casserole-like container, officially called a covered basal flange dish, to cook tamales from 1,400 to 1,700 years ago. "We can't be sure exactly when the dish was made," Zender says. "But if there's a single hieroglyph in that tomb, then I could date it to within 50 years. Every hieroglyph has its own stylistic history."

A team of archaeologists and students found the dish in a tomb a few days earlier at Cahal Pech, an archaeological site in western Belize. Now it's in Tiffani Thomas's nearby hotel room. Thomas, an artist and teacher working at the site, notices the open holes in the peccary's nostrils and smiles. "Can you imagine the smell of the tamales wafting out?"

"Oh, excellent! Well done. The steam would have escaped." Zender bends his 6' 2" frame over the peccary, picks it up, and gives it a quick kiss

A tall, imposing structure in what would have been the private elite sector of Cahal Pech. Photo: Diana Smith, Believe It Tour



In 2011, archaeologists unearthed bone rings with hieroglyphic inscriptions. Marc Zender translated some of these, discovering the name of Cahal Pech's King and the ancient Mayan word for ring. Photo by C. Mathew Saunders.

on the snout, laughing as he sets it on the bedspread. The beauty of the clay beast is awesome, yet its fragility is alarming. How can this artifact – this one-of-a-kind object – be sitting here on a bed, instead of behind glass at some museum?

Thomas is worried about storing it in her room. The archaeologists excavated and carried it from a tomb high atop a temple down a flight of uneven stone stairs. Now she has to keep it safe until it reaches its next destination, likely the Institute of Archaeology in Belize.

Everybody caring for irreplaceable items feels nervous, Zender reminds her. In 2011, during Zender's first season at Cahal Pech, archaeologists found, buried in a tomb, two beautifully inscribed rings made from animal bone. Zender deciphered the writing on them, discovering the name of Cahal Pech's king and the ancient Mayan word for ring. But in the process,



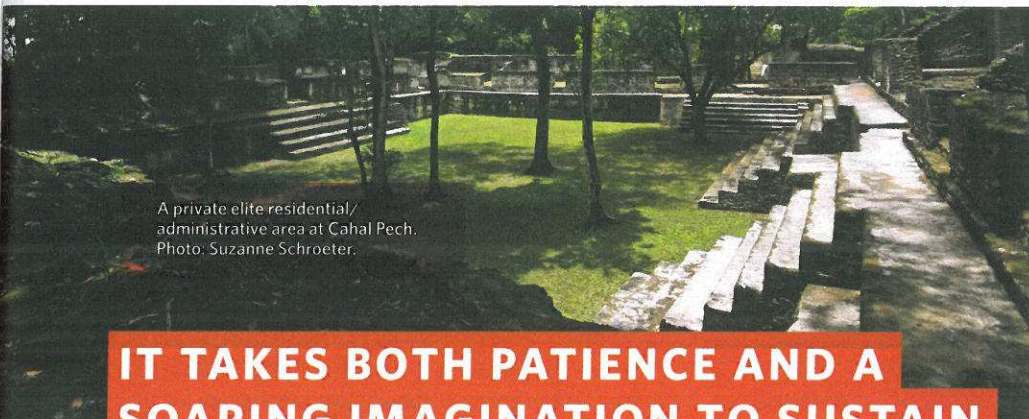
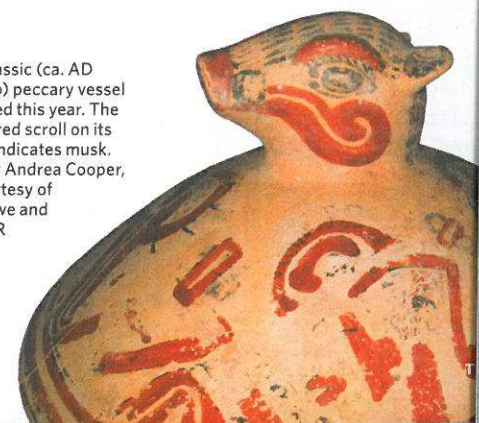
Marc Zender studying an ancient Maya building. Photo by Kathryn Reese-Taylor.

The one who hammers is currently the official epigrapher, or specialist in ancient inscriptions, for two Maya excavation projects: The Proyecto Arqueológico de Comalcalco in Tabasco, Mexico, and Cahal Pech, due east of Comalcalco. At Cahal Pech, Zender spends several weeks each summer as a faculty member of the AFAR field school out of North Carolina, one of the few programs to take US high school students on an international dig. This summer more than 40 students are covered in grime and joyfully digging where 6,000 people may once have lived before the collapse of the ancient Maya civilization around 900 AD. "Marc is one of those incredibly gifted people," says Jaime Awe, director of the Institute of Archaeology in Belize. "He's equally at home talking with colleagues as with high school kids. Not a lot of people have that gift."

It's hard to convey the range of Zender's mind. So let's try this: the Toronto native speaks English, German, Spanish, and Yucatec Mayan, along with remnants of French, and he's studied most of the 30 Mayan languages. Among other subjects, he teaches classes on both the ancient and modern forms of the Nahuatl language, once spoken by the Aztecs, at Tulane University in New Orleans, where he's a visiting assistant professor.

The vitae of his academic publications is pages long, but he can also riff entertainingly on topics like the history of the letter A. (It began as a drawing of an ox.) *Good Morning America* in the US, *Timewatch* on the BBC, and *National Geographic* have all featured Zender's research.

Early Classic (ca. AD 450-600) peccary vessel excavated this year. The looping red scroll on its cheeks indicates musk. Photo by Andrea Cooper, and courtesy of Jaime Awe and the BVAR project.



A private elite residential/administrative area at Cahal Pech. Photo: Suzanne Schroeter.

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he almost sat on the rings. "I cleaned and made notes about them on the bed because there was no other work space." He stands to demonstrate. "Then I got up to do something else, came back, and" – he blanches, remembering the almost-fatal-plop onto the bed – "ayyyy-eee!"



Dr. Marc Zender is one of world's top experts on Mayan hieroglyphs. In the classroom and on archaeological sites, he's a specialist in decoding Mayan writing and revealing the history, meaning, and culture behind it. Zender has been involved in deciphering some 50 Mayan glyphs – the characters and symbols in hieroglyphs – and has, unassisted, identified about a dozen.

Two glyphs make up his own name. AJ, a stylized flower with waves of scent floating from it, means "one who does," and BAJ, representing a hammer stone made of sturdy flint, means "to hammer." All together: "one who hammers," which ties neatly to the Latin word for hammer, *marcus*.

Late Classic (ca. AD 600-700) jade celt excavated from a tomb chamber in 2011. These objects were suspended from belts and would make musical sounds as they struck each other. Photo by C. Mathew Saunders.

"He's probably the best person to come along in the last ten years in my subject," says Stephen Houston, a leading archaeologist and professor at Brown University who helped bring Zender to Harvard as a post-doctoral fellow and lecturer, and also acknowledges him as "a spectacularly successful teacher, beloved of his students."

The high school students, led by Zender and AFAR founder Mat Saunders, are searching for the floor and exterior wall of a temple or building hidden within a hill at Cahal Pech. They are doing serious work that feels like play. Zender helps them dig with shovels, refine with trowels, and screen dirt for ceramics and other artifacts. He is authoritative without being remote or stuffy. (His rendition of "The Fun Song" from *Spongebob* is considered respectable by his charges.)

At 42, Zender could pass for a decade younger, maybe because he's never lost a boyish enthusiasm for the coolness of his subject. His mom was fascinated with history and nurtured his interest with frequent trips to the Royal Ontario Museum, where listening to the docents helped inspire his dream of a career as an Egyptologist.

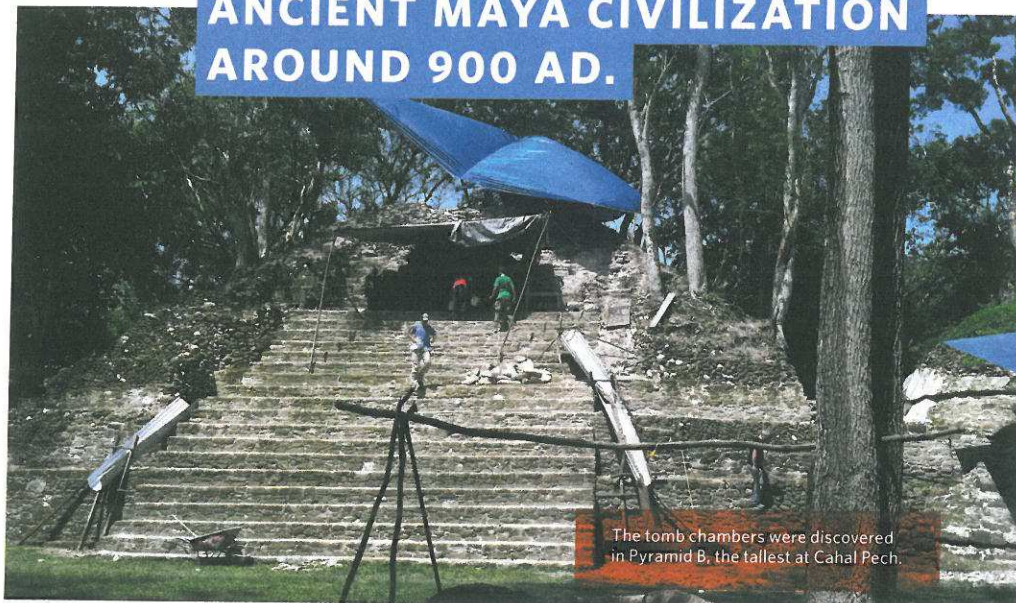
He played with secret languages early on. He and his friends would write notes to each other in code or lemon juice, to be revealed by the light of a lamp. "We'd send each other more and more devious messages to see if we could crack them," he says. By the time he was a teenager, he not only loved *The Lord of the Rings*, he had taught himself to read Tolkien's invented alphabets and the Elvish languages. (Zender still teaches courses on Tolkien's languages and writing systems through Harvard's Extension School.) He also realized that the Maya, like the Egyptians, had hieroglyphs - and that you could drive to Maya sites from Canada. Egyptian hieroglyphs had been largely decoded by the time Zender was at university, while there was still much to learn about Mayan.



During Zender's three summers at Cahal Pech, the teams of students and professionals have turned up extraordinary finds, including jade figurines, obsidian tools and weapons, painted ceramics, bone, jewelry, shells with hieroglyphs, and an inkpot with three colors of pigment still intact. Jade pendants, sometimes worn on belts, not only looked beautiful in Maya times but chimed as they knocked together - the sound of the elite strolling by. From the 32 sites where Zender has worked or consulted, though, his most exciting discovery has been more than a dozen burial urns at Comalcalco, including one that told a life story.

"It wasn't from a king or queen or high nobleman, but rather a priest, a functionary for the site," Zender says. The priest's small burial chamber was filled with dozens of texts inscribed on stingray spines and conch

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The tomb chambers were discovered in Pyramid B, the tallest at Cahal Pech.

shell pendants. "It suddenly cast light on all these people who were on the periphery of court life." During ritual ceremonies, the priest would pierce his penis, tongue or ear lobe with a shark's tooth as a way to offer a gift of blood to the gods. They were a fun group, those Maya.

The glamour of that find got Zender written up in *U.S. News & World Report*. It also produced, behind the scenes, one of the more memorable stories from Zender's marriage. Zender and his then-fiancée, Susan Morley-Zender, BA'97, had planned a Cancun honeymoon and were a few days from leaving when Zender received an urgent email from Comalcalco: Come now!

He broached the news to his beloved, who agreed to make a detour from Cancun. Zender promised an easy bus ride, but in his haste to get there, he picked the first scheduled departure. "We ended up on the chicken bus," Morley-Zender says. In cages piled high around them, chickens clucked and preened. "It was a 16-hour ride, with no stops, and the bathroom didn't work. It smelled so awful that the locals held handkerchiefs over their noses." It wasn't all from the chickens; the bathroom waste holding-tank was positioned above the muffler, producing a cauldron of boiling excrement.

Zender laughs uproariously when he hears that his wife has recounted the story (in a small building, you can find him soon enough by listening for the burst of baritone laughter) then pauses for a moment: "Was she laughing when she told you?"

Zender's life has taken unexpected turns before. He is the second in his extended family to graduate from university, earning his undergraduate degree in anthropology at age 27, guided by his mentor, UBC associate professor William R. Thurston. The way Zender set out to become the best at an obscure subject may not be a bad plan: Before going to college, read plenty of books on your own first. "He took time off to self-educate," Morley-Zender, an elementary school teacher in New Orleans, says of her husband. "I think he knew when it was time: Not only am I going to do this, I'll do it with excellence."

They met in a UBC class on Indian history and married a year after graduation. He had already become "instant dad" to her two young daughters, and they have a third daughter, all of whom enjoy hieroglyphs, although not quite as much as their dad. Secret signs can come in handy even for them. When Zender needs to let them know where the house keys are, he does so with Egyptian hieroglyphs.



It takes both patience and a soaring imagination to sustain a career in archaeology. Zender, Saunders, and others have many conversations about whether the stones they're uncovering are part of a wall or the beginnings of stairs, whether they are part of an intact building or a collapsed one. Some of the material could be daub, the evocative word for stucco or plaster used on an ancient building, now fallen and just historical debris. Add looting from the 1950s and 1,200 years of trees, and "the rubble pattern of a building can look ridiculously complicated," Zender admits. "A whole generation of trees can grow up, become massive, die, and yank the top of a building to pieces."

He's giving a tour on Friday morning from the top of the excavation hill. As he describes how commoners and the elite lived, the city seems to materialize before him. Perhaps such imaginary visions - of structures and pathways, ancient ball games and markets - are what Zender sees all the

Late Classic (ca. AD 600-700) conch shell ink pot. Three of its four wells still show traces of blue, red, and black ink. Photo by C. Mathew Saunders.



time. Below, the students hoist wheelbarrows of excavated dirt and someone's iPod plays Billy Joel's "New York State of Mind."

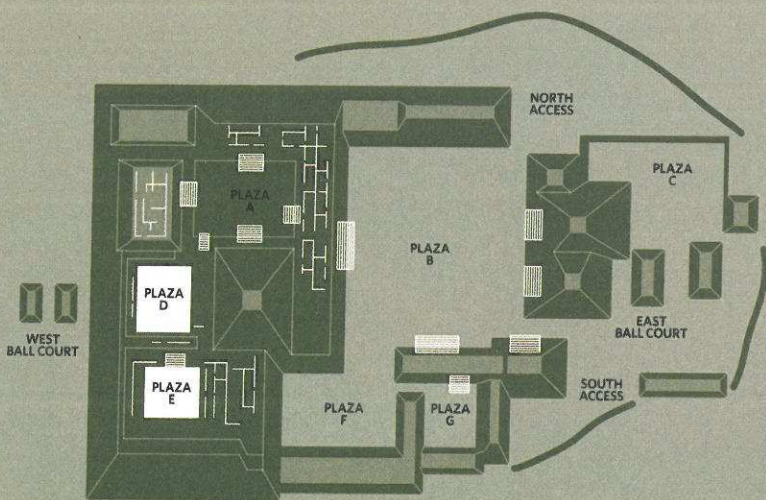
Zender, who skips from stone to stone with the agility of a mountain goat, agrees that archaeology is like working a puzzle, "except we don't have all the puzzle pieces, and we don't have the picture on the box lid," he says. They've seen enough patterns at other sites or in reports, though, that they can hypothesize; archaeologists begin with the known to piece together the unknown.

That's what the students have been doing. Their efforts could give staff from the Institute of Archaeology enough information to reconstruct or conserve the facade of the new structure by next summer.

This work isn't for everyone. It's tiring, even for teenagers. Belize can be so humid in July that you feel as if you never left your bathroom after a shower. But by Friday afternoon, at the end of their second week in Belize, there is a movie-ready ending: They've found facing stones from a long-ago staircase that can help guide the rest of the excavation.

To anyone who has invested time on the site, or in the company of Zender, the facing stones are like jewels. It is so easy to get wrapped up in what might be under that next layer of soil. For Zender, the excitement about making discoveries in the field has never waned. "All those giddy, Indiana Jones-type feelings come back to you," he says. "You're digging in a sandbox - and coming up with treasures." **T**

CAHAL PECH



Source: Archaeological Institute of America.

MEANING: PLACE OF

TICKS

1950

FIRST EXCAVATED

1,500

YEARS OF HABITATION

34 10

BUILDINGS SQUARE MILES

MOST LIKELY SETTLED BY

MAYA FROM GUATEMALA

DATE OF DISCOVERY

UNKNOWN

ONE OF THE EARLIEST

MAYA SETTLEMENTS IN BELIZE