

SAVING

THE Mirador Basin

Richard Hansen's project has already redefined the Preclassic Maya. Now he's trying to preserve the region where one of the Western Hemisphere's earliest complex societies emerged.

By Michael Bawaya

La Danta, the largest pyramid in the Maya world, is seen from above.

"Snake." We freeze, abruptly focusing our flashlights on the dense jungle vegetation. Hansen doesn't see it, but he hears it, hears its soft slither. I'm ready to bolt, but Hansen stares at the vegetation, carefully prodding it with a stick, seemingly more curious than concerned. Richard Hansen's had a few close calls with poisonous snakes during the 27 years he's worked in northern Guatemala's remote 600,000-acre Mirador Basin, and that's taught him to listen as well as watch when he makes his way through the jungle.

This prompts him to explain his approach to snakes, how he respects rather than fears them. None of his workers have been bitten because he's trained them to respect snakes as well. Though he was born in Idaho, Hansen seems at home in the Mirador Basin jungle. "I love it," he says. He's also fascinated by it. "I have a botanist who is taking a complete floral inventory of the entire basin," he explains, adding that the botanist has been at it for two and a half years. "For the first time we're getting a handle on the flora and fauna."



Richard Hansen has made serving the people in the nearby communities an essential part of his project. In this photograph, Hansen, standing in the background in front of the white board, teaches a group of his workers how to read Spanish. He says his workers are eager to learn.

It seems no detail about the Mirador Basin is insignificant to him. “I’m as excited about a pollen sample in a muck bog as I am about a jade mask in a royal burial,” says Hansen. He believes the more he knows the better he’ll be able to understand how a remarkably advanced civilization—“the first state-level society in the Western Hemisphere,” according to Hansen—emerged here some 2,500 years ago during the Maya middle and late Preclassic periods. Over the years he and his crews have identified 26 major cities and about 60 smaller ones in the basin, about 25 of which they’ve mapped and excavated. But that’s hardly all of it. “There’s several hundred sites out here that we’ve never touched,” Hansen states. He estimates a few more years of mapping are required to determine how many sites the basin holds.

Hansen’s goal is “to understand the origins of complex society” as well as the social, political, and economic structure of that society and the causes of its collapse. The Preclassic period, which took place from roughly 2000 B.C. to A.D. 150, was thought to have been the developmental stage of the Maya’s magnificent culture. But in the Mirador Basin, Hansen and other researchers have discovered evidence of huge, grand Preclassic cities that suggest a people at their apogee. “You can fit the whole site of Copán into one building here,” he declares. These structures were built about 1,000 years earlier than monumental architecture at other Maya sites; therefore, he refers to the basin as “the cradle of Maya civilization.”

When members of a 1930s’ University of Pennsylvania aerial expedition spotted El Mirador’s huge, jungle-covered pyramids, they mistook them for volcanoes. In the 1960s, the legendary Harvard



Archaeologists discovered what appears to be a royal burial at Tintal. These vessels were among the grave goods that were associated with the burial.



JERRY RABINOWITZ

Richard Hansen looks out over the Mirador Basin from his perch at the top of La Danta. He and his colleagues have identified more than 80 cities in the area, about 25 of which they've mapped and excavated.



A worker stands on scaffolding during the excavations of the central structure at the summit of La Danta. The pyramid is roughly 230 feet high.

Mayanist Ian Graham mapped portions of the city. Back in 1979, when Hansen began working at El Mirador, the city's monumental architecture led archaeologists to believe that it had been built during the Classic period (ca. A.D. 250–950), when the Maya flourished. Hansen was then a graduate student working under the direction of Ray Matheny of Brigham Young University and Bruce Dahlin of Catholic University of America. He was assigned to expose a room in a building called Structure 34. While working there, he was startled to discover Preclassic pottery on the floors of the narrow chambers at the summit. "I couldn't believe it, because it shouldn't have been in the building. That building was way too sophisticated." The style of the pottery, however, was distinctly Preclassic.

"It was an amazing moment," he recalls, "because I was the only person in the world who knew this." What he knew was not only that archaeologists' assumptions about El Mirador were incorrect, but so were their assumptions about the Preclassic Maya. "The whole model was wrong. And here I was, a lowly graduate student going against the big guns at Harvard and Yale and Stanford and Chicago." This presented a formidable challenge. "You have to be right," he says. "If I had been wrong, I would have been toast."

He found more Preclassic pottery in and around nearby structures, which corroborated his conclusion. In 1983, the Matheny/Dahlin project ended. "But I was captivated by the basin, by the Preclassic florescence here that was rare or scarce elsewhere." He returned in 1987 and began work at Nakbe, the oldest known city in the basin, which dates to about 1000 B.C. In 1988, the Guatemalan government asked him if he would investigate the entire basin. "I believe in regional studies. I think they're more comprehensive." So began the Regional Archaeological Investigation of the North Peten, Guatemala Project, which was later renamed the Mirador Basin Project. In 1996 Hansen formed the Foundation for

CHARLES DAVID BIEBER



A worker holds a terminal Classic figurine. Though the Mirador Basin cities collapsed around A.D. 150 during the late Preclassic period, La Danta was later inhabited during the terminal Classic period (approximately A.D. 900) by a small number of people.

Anthropological Research and Environmental Studies, a non-profit institution concerned with ancient and contemporary societies and their environments.

Hansen, 53, is a big, vigorous man with an intense mien. Unlike most archaeologists, he's gained a measure of celebrity for his work. He's been featured in dozens of documentaries and newspaper and magazine articles, and he's also appeared on the TV shows *20/20*, *World News Tonight*, and the Australian edition of *60 Minutes*. He's even gotten a taste of Hollywood, serving as a consultant for *Apocalypto*, Mel Gibson's cinematic take on the Maya. (Some experts have criticized the movie, saying its depiction of the Maya is inaccurate, but Hansen largely defends it.) He rubs elbows with wealthy and powerful people, Gibson among them, who support his project.

Hansen spends about half of the year in the field or in a laboratory in Guatemala City analyzing artifacts. Life at the El Mirador camp features precious few amenities. The crew sleeps in tents and uses outhouses. Mule train brings in most of the supplies. Mimicking the ancient Maya, Hansen built a series of large underground cisterns that collect rain water for drinking and other purposes. There are no showers, and "bathing" means making do with a bar of soap and a basin of water.

In addition to directing a huge crew of roughly 300 workers,

Hansen is also teaching a field school of students, one of whom is his son, from Idaho State University, where Hansen is on the faculty. Several of the students are sitting at a long table eating a breakfast of rice, beans, eggs, and tortillas that they wash down with a grape Kool-Aid-type drink. Though Guatemala is a major coffee-producing country, the camp coffee is a strange brew made from blackened tortillas that the students eschew. The conversation segues to health care and the cost of anti-malarial pills. Another student told of how the camp doctor anesthetized a worker's mouth with Novocain so all of his rotten teeth could be removed by another worker with a pair of needle-nosed pliers.

After breakfast Hansen leads me, a photographer, and a half dozen students on a short hike to La Danta, the largest prehistoric pyramid in the Maya region and one of the largest in the world. Most of the roughly 2,000-year-old structure is covered by jungle, giving the impression that it's a big hill. There are steps, first limestone and then wooden, for climbing the pyramid's first three platforms. We ascend to the final structure by pulling ourselves up with a rope. On one side of the pyramid, workers on scaffolding are restoring a wall. The top of La Danta is some 230 feet high, and once we reach it Hansen sits on the edge, pleased with this sweeping view of the basin.

In the distance we can see mounds that represent some of

the other cities that were part of the basin's advanced, powerful, unified society. He has discovered nine other cities that are similar in size or larger than Tikal, one of the great Maya capitals. El Mirador, Hansen observes, was the "seat of the superpower in the Preclassic." The story of these people has never been told, he says. "We're looking at the opportunity to reveal the story for the first time in all of its splendor, from all different angles and perspectives."

Hansen assumes that a "charismatic king" united the cities in the basin and ordered the grand architecture. He believes hundreds of thousands of people once lived here because a huge labor force was necessary to construct the monumental buildings. He estimates La Danta alone "required 15 million man-days of labor to build," a conclusion he reached through experimental archaeology. Hansen's crew replicated ancient Maya tools and quarried stone blocks of the same dimensions the Maya used in their structures. They also replicated how long it took to transport the blocks from the quarries to the building sites. For example, it typically took "12 men 17 minutes to haul a 1,000-pound block 600 meters," he says. "What's phenomenal about the cities in the Mirador Basin is the investment of labor and the extraordinary control of the masses."

We descend La Danta and head back to the camp. Along the way, Hansen points out an old looters trench. A very valuable type of pottery, called codex pottery, was produced by a small group of people living in the Mirador Basin's ruins after the cities were abandoned. (The pottery is so named because its images appear to have been taken from a sort of early book

called a codex.) This is one of the reasons that many of the basin's sites have been heavily looted, but he's remedied the problem by hiring armed guards, some of whom were former looters, to protect it. Since 1992 he's spent more than \$1 million on security. "Wherever I've had guards, we haven't had one single looter's trench," he states. "It's amazing to see the transformation in these guys," he says of the looters-turned-guards. This year the Guatemalan government is assuming responsibility for security, providing and paying for 40 guards, and there's the possibility that another 22 will be hired.

Hansen points to a ridge that hides the remnants of a causeway, one of several that linked the large cities in the basin. The causeways were six to 12 feet high and 90 to 120 feet wide and the oldest of them date to about 2,400 years ago. They were made of stone, paved with thick walls of plaster, and served for purposes of communication and trade. Though the archaeologists haven't found evidence of the types of commodities that were traded, Hansen surmises such goods as alabaster, shell, jade, obsidian, corn, cacao, and squash were exchanged.

The causeways suggest comity between the basin's cities, but the archaeologists have also found suggestions of conflict with cities beyond its borders. They've uncovered evidence of large walls and moats, presumably built for security. The wall around El Mirador, for example "must have been 60 feet high when it was first built," says Hansen. It was made of limestone and probably had wooden palisades. He speculates it could have been a response to potential threats from nearby Tikal, or Teotihuacán, which is near Mexico City. Hansen knows the



Local workers have been trained to perform various tasks. These workers are measuring portions of a structure so that it can be accurately recorded.

MATTHEW ADAMS WHITE



JERRY RABINOWITZ

El Mirador was thought to be a Classic period city until Hansen discovered Preclassic pottery inside Structure 34, shown here. The building is now exposed and covered by a polycarbonate roof that Hansen designed with his codirector, archaeologist Edgar Suyuc, and aeronautical engineer John Cybulski. The roof was designed to protect the building from such things as the harmful effects of ultraviolet light.

walls were built as the cities in the basin declined, and he thinks they were a symptom of that decline. The Maya collapsed for an entirely different reason.

Hansen busies himself with investigating the countless details and testing his hypotheses, but having spent nearly three decades researching the Mirador Basin, he believes he has revealed the larger story of the Maya. There was a time when he wondered how the Mirador Basin cities emerged as a “superpower when the rest of the Maya world was struggling to find its identity.” The answer, he’s concluded, was the mud. “Around 1000 B.C. a band of people found some attractive resources in a marsh,” he says. They “exploited these resources to the max.” These Maya were not slash-and-burn farmers; rather, they used a layer of mud to replenish their productive agricultural fields and terraces. “The marshes were the economic engines,” states Hansen. It produced the food that fed the laborers that built the monumental structures as well as surpluses that were used in trade to obtain valuable items. “The number of swamps here is what attracted these populations.”

For more than 1,000 years they prospered. Then, in the late Preclassic period around A.D. 150, the Maya collapsed in the Mirador Basin. Hansen offers a succinct explanation for the fall: “conspicuous consumption.” They were at their apogee, possessing the resources to indulge themselves, and indulge themselves they did. “They were doing just great for a thousand years and then they went overboard,” he says. The

rulers were full of themselves, he explains, running through a laundry list of their vices: “stupidity, gluttony, perhaps laziness, top-heaviness, over-taxation.”

A salient example of their conspicuous consumption was the increasing thickness of the plaster on masks, panels, walls, and floors as time passed. The archaeologists analyzed more than 100 floors in various cities and found that the average thickness of floors in the middle Preclassic period, between 800 and 400 B.C., is roughly one to one and one-half inches. As time passed, the thickness of the average floor increased to nearly five inches, and some were almost 15 inches. Why did they build floors that thick?, he asks rhetorically. “Because they could.”

The Maya used large amounts of lime to build their structures, so Hansen enlisted a research team from the University of California, Berkeley, to study lime production systems. They discovered it took great quantities of wood and limestone to make small quantities of lime. “They destroyed their environment to feed a burgeoning lime production system,” Hansen observes. Drought may have exacerbated the problem. Clay is a natural component of limestone, and having stripped their land of vegetation, the clay washed over the agricultural fields and terraces, eventually burying them.

“They didn’t seem to care,” he says of the rulers who caused this degradation. “They didn’t worry about the consequences. They had their lime production. They had their big cities being built.” The commoners recognized the severity of the problem, and when they suffered a scarcity of food they lost faith in their rulers and abandoned the basin. “We don’t really know where they went,” says Hansen. Perhaps to the northeast, in which case their descendants could have occupied Calakmul in Mexico. As the Mirador Basin cities fell, Tikal rose. In the absence of the superpower, Hansen reasons, it was easier for Tikal to expand economically, politically, and militarily.

In 1990 Hansen presented a report on his research to a resident of one of the outlying villages, who responded, “What does this mean for me and my family?” The question caused Hansen to dramatically reinvent his project, making it more beneficial to the area’s living residents. “I came to the conclusion years ago that science is sterile if it doesn’t help the lives of people in some way,” he says. So he designed his project to serve the people in the communities along the edge of the basin as well as archaeology.

Hansen says the region is threatened by forces he sometimes refers to as “the dark side.” They include looters, loggers, poachers, and drug and human traffickers. He’s concluded that in order to preserve the archaeology in the basin, he must preserve the basin itself. This means confronting the dark side, which has proven to be dangerous. Due to death threats against Hansen, 10 Guatemalan soldiers are guarding his camp. “They thought if they could take me out of the picture it would all go away, so they could log and burn with impunity,” he says.

Sitting on the steps of Structure 34, the building in which he first discovered Preclassic pottery, he explains how this will be accomplished.

It’s unrealistic to expect the local people to refrain from



A partially reconstructed codex vessel. Many of the basin’s sites have been heavily looted by thieves searching for this valuable type of pottery.



This map shows the major cites and some of the smaller sites, which are indicated by dots, in the Mirador Basin. The solid and dotted white lines represent the surveyed and unsurveyed causeways connecting some of the major cities. The causeways were used for communication and trade.

looting, logging, and poaching, and starve as a result. They need to earn a living, Hansen says, and he's trying to help them find alternative ways to do that. Tourism is one of those alternatives. "We can generate hundreds of millions of dollars for this country," he states. El Mirador is a remote site that can't be reached by car. I arrived via a 30-minute helicopter ride from the town of Flores. Those who don't take a helicopter face a grueling two to three day hike. Not surprisingly, El Mirador gets only around 2,000 tourists a year, according to Hansen, while hundreds of thousands visit Tikal and Chichén Itzá, in Mexico's Yucatán Peninsula, each year.

He envisions the basin as a roadless wilderness preserve. "A road into here is the kiss of death," Hansen says, because it will result in deforestation. He believes there are other options, such as a small-gauge train, that could solve the access problem. The track could be laid in a way that would spare the trees. Such a train would cost about \$8 million to build, one-tenth the cost of a road, he says. There are people who have 25-year concessions to log the forest, and if he had the authority, rather than deny those concessions, Hansen would rent the trees from the loggers so they wouldn't be cut down.

He would also like to see a lodge built at El Mirador to welcome tourists with "a cold drink, a nice shower, and a nice bed." Hansen says that, according to the Guatemalan Institute of Tourism, annual tourism revenues associated with Tikal are about \$220 million, a figure he is confident El Mirador can match or exceed. In addition to remoteness and a lack of creature comforts, El Mirador currently lacks the magnificent exposed structures that draw visitors to Tikal, Chichén Itzá, and other popular Maya sites. Exposing La Danta and the other large pyramids is an essential part of Hansen's plan—"That'll knock Tikal for a loop," he claims—but the idea is to give visitors a different experience than those sites offer.

"It will be a jungle, wild life experience," says Jeff Morgan,

the executive director of the Global Heritage Fund, a non-profit organization that preserves archaeological and cultural heritage sites and is supporting Hansen's efforts. Hansen intends to expose only the fronts of the buildings, leaving the remainder covered by jungle. This approach keeps the buildings stable, preserves them for future research, reduces the expensive maintenance that's a consequence of exposure, and is less disruptive to the animal habitats.

But even limited exposure of these structures will require an enormous amount of time, effort, and money. More than \$600,000 has already been spent to expose and stabilize Danta. However, Hansen says he's already excavated a lot of the ruins and backfilled them, so uncovering them again for tourists won't require as much work and expense.

Achieving such ambitious goals requires extensive expertise. In September of 2006 the U.S. Department of Interior and the Guatemalan government signed a 10-year agreement whereby the Interior Department will provide technical expertise to protect the natural and archaeological resources and promote sustainable development in the "Mirador Cultural and Natural Zone," which includes a part of the Mirador Rio Azul National Park, which occupies part of the basin.

Hansen's goals also require large sums of money, so part of his time is spent raising that money. The Global Heritage Fund has committed \$5 million over the next three years. The day before I arrived, Hansen accompanied another of his supporters, John Paul DeJoria, who cofounded the company that makes Paul Mitchell hair products, to the top of La Danta.

Hansen states that he has a "fairly good" chance of saving the basin. Skeptics may question his ideas of a train to El Mirador and renting trees, but it wouldn't be the first time he's turned conventional wisdom on its head.

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