



THE CHALLENGE OF HUAUTLA

by C. WILLIAM STEELE

RETURN OF FLAG N°73

FIRST CARRIED INTO THE FIELD IN 1937, WHEN THE POLAR EXPLORER ARNOLD H. HAVERLEE TOOK IT TO LAPLAND, FLAG N°73 HAS BEEN ALONG ON 17 EXPEDITIONS AND HAS LOGGED THOUSANDS OF KILOMETERS IN ITS TRAVELS AROUND THE GLOBE, ACCOMPANYING THE CURIOUS TO ANTARCTICA, BHUTAN, AND THE DARIÉN GAP. MOST RECENTLY, THE FLAG WAS A KEY PART OF THE FIELD KIT ON THE 2016 EXPEDITION INTO SISTEMA HUAUTLA, A MASSIVE CAVE SYSTEM IN THE MEXICAN STATE OF OAXACA.





SISTEMA HUAUTLA



MAP OF KNOWN PASSAGES



HUAUTLA BY THE NUMBERS

DATE OF DISCOVERY

June 6, 1966

KNOWN ENTRANCES

20

LENGTH

75.5 kilometers mapped to date

DEPTH

1,560 meters, the lowest point reached to date

LARGEST CHAMBER

Anthodite Hall, discovered by Bill Stone and Tommy Shifflett in 1979

235 meters long

135 meters wide

More than 50 meters high

1,000 meters of rock above it to the surface

WORLD RANKING

Deepest cave in the Western Hemisphere

8th deepest cave in the world

Longest of the 17 deepest caves in the world

A FELLOW OF THE EXPLORERS CLUB SINCE 1979, C. WILLIAM STEELE IS A SPELEOLOGIST WHO HAS EXPLORED MANY OF THE LONGEST AND DEEPEST CAVES IN THE UNITED STATES, MEXICO, AND CHINA. HE IS THE AUTHOR OF TWO BOOKS CHRONICLING HIS EXPEDITIONS: *YOCHIB: THE RIVER CAVE* AND *HUAUTLA: THIRTY YEARS IN ONE OF THE WORLD'S DEEPEST CAVES*. HIS CAVING EXPLOITS HAVE BEEN FEATURED ON *NATIONAL GEOGRAPHIC EXPLORER*, *NOVA*, AND *HOW'D THEY DO THAT?* SINCE 1980, STEELE HAS UNDERTAKEN 16 EXPEDITIONS INTO SISTEMA HUAUTLA, 8 CARRYING THE EXPLORERS CLUB FLAG. FOR MORE INFORMATION ON THE CURRENT PUSH INTO SISTEMA HUAUTLA OR TO SUPPORT THE PESH PROJECT, VISIT WWW.PESHCAVING.ORG.

On June 6, 1966, Ed Alexander and Bob "Rune" Burnett, cavers from Austin, Texas, rappelled into a jungle-cloaked hollow in the landscape that had been spotted a year earlier in aerial photographs of the Sierra Mazateca in the northern part of the Mexican state of Oaxaca. Little did they know that the 80-meter-deep shaft would turn out, in time, to be one of 20 known entrances to a massive cave system dubbed Sistema Huautla. With a surveyed length of 75.5 kilometers and depth of 1,560 meters, Huautla is the deepest-known cave in the Western Hemisphere and the eighth deepest cave the world. And as of this writing, we think we've reached only half of what's there.

In the half-century of exploration since the cave's discovery, this subterranean labyrinth has presented a host of formidable challenges. Those who dare to venture into the cave must negotiate narrow, lengthy, submerged passages and have the mental fortitude to spend weeks on end in isolation, with no way to communicate with the outside world. Yet, for our team of 47 speleologists and scientists, this season would present one of our greatest challenges to date. For the time had

come for us to move beyond mere mastery of the technical aspects of caving, and to begin to address Huautla on a spiritual level—to appease the deities of the other-world and the local community beholden to them. Only then might we stand a chance of gaining access to the cave-bearing karst at substantially higher elevations in the area around Agua de Cerro, just to the north of where we have been carrying out our most recent expeditions. Should we find entrances to passages there that link to Sistema Huautla, it would increase Huautla's vertical measure by 270 meters or more, moving the cave's ranking up to second-deepest in the world.

It was during a 1980 expedition to Huautla that we first spied the suite of steeply walled dolines along a rough road leading into the hilltop community of Agua de Cerro. The following year, I returned to Huautla with fellow caver Bill Stone, who had put together what he ambitiously named the Agua de Cerro Expedition. In addition to continuing our exploration of the cave, we hoped to begin systematically exploring the dolines in the Agua de Cerro vicinity, some of which appeared to have deep pits or tunnels inside of them. But as it turned out, we were unable to survey the area that year, and have been denied access to it ever since, largely due to the objections of the local Mazatec community, which regards deep recesses in the Earth as entrances to the domain of the cave spirits, the life-giving forces that govern their health and wealth and the fecundity of their crops.

OPENING PAGE: CAVERS DESCEND THE 77-METER-DEEP "SPACE DROP." PHOTOGRAPH BY CHRIS HIGGINS.

PREVIOUS SPREAD: CAVER ADAM HAYDOCK ASCENDS ONE OF MANY SHAFTS IN THE LA GRIETA SECTION OF SISTEMA HUAUTLA. PHOTOGRAPH BY CHRIS HIGGINS.





Adherents of pre-Columbian beliefs who still converse in their native Mazatec, the residents of Agua de Cerro have been wary of our presence, fearing we may upset the equilibrium by journeying into such sacred space, despite our sporadic efforts over the years to convince them otherwise. As speleologists, we too have found ourselves in awe of the caves, drawn to the magical formations within Sistema Huautla, and we never cease to marvel at the great geological processes that gave rise to them, some six to ten million years ago. The question for us now, however, is might we find enough common ground with the people of Agua de Cerro to move our project forward?

With the 2014 launch of our latest effort, Proyecto Espeleológico Sistema Huautla (PESH), in which we planned a decade-long campaign of annual expeditions to the cave, we decided to reach out to the community in earnest, hoping to gain their trust, and, in time, access to a surreal swath of limestone.

Our first order of business during that 2014 field season was to meet with municipal authorities in Huautla de Jiménez in hope of enlisting their help, as Agua de Cerro falls under their jurisdiction. The newly elected director of civil protection said he would be happy to accompany us to Agua de Cerro for a meeting with town elders, and offered to take us there in a police truck, along with a few officers. Initially, we were hesitant to roll into town in the company of law enforcement, but given our previous lack of progress, we went along for the ride. Our contingent consisted of Jaime Escudero, a local man from San Agustín Zaragoza who we have known since the 1970s; Cristina Estrada,

ANTHODITE HALL, THE LARGEST CHAMBER FOUND TO DATE WITHIN SISTEMA HUAUTLA, IS 250 METERS IN LENGTH. PHOTOGRAPH BY CHRIS HIGGINS.

a Dallas-based caver and graduate student who is originally from Mexico; and myself.

Once in town, we were able to meet with the head of the village. As our conversation shifted from Mazatec to Spanish to English and back again, our host expressed his concerns about our entering the caves and the potential harm it might bring his community. I told him that we had been venturing into the caves near San Agustín for nearly five decades and assured him that so far as we knew, no ill had come of it. Following our conversation, our host told us that he would be holding a community meeting the following week to discuss our proposed explorations and they would take a vote on whether to allow us in. We knew then that the answer would be no.

As we rode back to Huautla, the director of civil protection suggested that we put up a public display in the Huautla government building, with photographs and information not only about the cave system but also about the participants in our expeditions. By publicizing our work, he reasoned, we might be able to make some inroads.

For our 2015 field season, we did just that. And, much to our delight, Norman Bravo, a schoolteacher from nearby Santa María Asunción, saw our display shortly after assigning his students a research project on caves. He tracked us down and invited us to give a presentation to his class. He also helped us to reach out to other schools in the area. And thus began our outreach campaign in earnest.

A couple of months after I returned home, I received a Facebook friend request from Alma Rodríguez, who runs an English language school in Huautla. During our subsequent email exchanges, she told me that our exploration of the caves was the most interesting thing happening in the Sierra Mazateca region and that she wanted to help our project in any way possible, particularly with regard to on-the-ground logistics.

When I mentioned my frustration with our lack of progress in obtaining permission to explore the area around Agua de Cerro, she suggested that we should consider engaging the services of a local shaman to hold a traditional ceremony in which we would ask the cave spirits for permission to enter their realm on their terms. At this point our team was more than open to the idea.

Upon our arrival in Huautla in late March, we checked in with local officials, informing them of our 2016 field season plans, as is customary. While there, we asked about the possibility of arranging a proper ceremony. It just so happened that an anthropologist affiliated with UNESCO was driving in from Mexico City to conduct a training course on cultural heritage management as part of Pueblo Mágico, a federal program aimed at boosting tourism in four cities in the state of Oaxaca, including Huautla. We were told that she would be able to put us in touch with just the right people.

While awaiting her arrival, we were introduced to Alfonso Martínez García, a teacher for many years and the local director of Pueblo Mágico. As it turned out, Alfonso was quite familiar with Sistema Huautla, as I had been asked to submit photographs of the caves for use in the city's pitch to participate in the program. We also found out that Alfonso was a respected Mazatec *curandero* who understood our spiritual needs. At long last, it seemed that the stars had aligned.

Alfonso agreed to meet us a few days later in the small village of Plan Carlota, where we had rented a fieldhouse. In

RIGHT: JON LILLESTOLEN PARTICIPATES IN THE RITES ASSOCIATED WITH THE CAVE SPIRIT CEREMONY, CONDUCTED BY MAZATEC *CURANDERO* ALFONSO MARTÍNEZ GARCÍA AT THE PESH TEAM FIELDHOUSE IN THE VILLAGE OF PLAN CARLOTA. PHOTOGRAPH BY C. WILLIAM STEELE.

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the meantime, he told us to purchase a medium-sized turkey and a particular type of small white flowers, which we acquired at the market in San Andrés. On the appointed day, Alfonso arrived with the paraphernalia needed for the ceremony—copious amounts of copal incense, candles, cacao beans, and a painting depicting things sacred to the Mazatec people.

Once inside our fieldhouse, Alfonso lit a brazier full of incense and a candle for each member of our caving team and began chanting. The turkey, with its feet bound together, was passed over each of us, as we stood still, enveloped in a thick cloud of smoke from the incense. We were each given seven cacao beans and told to keep them with us while on our expedition. Alfonso then announced that it was time for us to proceed to Agua de Cerro to entreat the cave spirits for safe passage. Upon reaching the village, Alfonso asked us where the cave entrance was. We were quite surprised as we thought that he knew where the entrance was. I explained that since we had not been allowed to survey the area, we had no way of knowing where the entrance or entrances we sought might be located.

Rather than asking a local for directions, we decided we would simply hold the ceremony at a locale known as La Grieta where there is a 60-meter shaft entrance to Sistema Huautla. Shortly after our arrival, Alfonso proceeded to light more copal and handed me the turkey. He then asked if I had a knife. I assumed that the turkey's leg might be nicked with it and blood would be dripped onto the smoldering copal. Instead, Alfonso cut the cord binding the turkey's legs. He then told me to drop the

turkey into the pit. It was then that I realized that we had to sacrifice the bird, with whom I had already bonded. I hesitated for a moment, then held the turkey over the pit and let it go. The bird dropped fast, frantically flapping its wings, before disappearing into the blackness, surely dying on impact.

We returned to the fieldhouse a couple of kilometers away, where Alfonso tallied the cost of the ceremonial items, which came to 700 pesos, about \$41. I told him I thought it was important that we let the people of Agua de Cerro know that in carrying out the ceremony, we had followed their customs, but Alfonso said no. "You don't talk about such things. It is between us and the cave spirits." Alma concurred, saying, that, in time, word would get out the right way.

Our 2016 field season proved to be among our most fruitful to date. In addition to adding another 3.5 kilometers in length and 6 meters of depth, we were able to complete the mapping of Mexiguilla, a stunningly beautiful section in the La Grieta portion of the cave, which we discovered in 2015. We also explored and mapped Big Wind cave, which is likely connected to Sistema Huautla. Three leads remain and are a priority for next year. We were also able to push 1.5 kilometers north of La Grieta Camp 3, the northernmost point we have explored in the cave to date. Camp 3 is extremely remote and quite hazardous to reach given the unstable rock one must pass beneath, but it is paying off. The cave appears to be opening up and "big water" can be heard ahead. Perhaps most important, we made more than a dozen presentations to school and community groups this past spring season with Alma's invaluable help. Our hope is that through our various outreach efforts, we will be able to share the magic within the caves, which we have seen firsthand. Perhaps then, the people of Agua de Cerro will welcome us into their world.  

CAVERS ADAM HAYDOCK AND JASON LAVENDER TRAVERSE TWO OF THE MANY ROPE DROPS WITHIN LA GRIETA. PHOTOGRAPH BY CHRIS HIGGINS.