

U-NEWS

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Lasers to help map Mayan ruins in Belize

An archaeological project's reach will be extended by a \$412,000 grant.

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SPECIAL TO THE SENTINEL

After receiving a \$412,000 grant, University of Central Florida archaeologists will dig deeper into the uncharted jungles of Belize.

Caracol, Belize, once home to more than 140,000 Mayan people, gained archaeological interest at UCF in 1983.

During the past 25 years, UCF's team has scoured and excavated the ancient city, finding multiple artifacts, ruins and tombs. However, with the help of a NASA Space Archaeology Program and UCF-UF Space Research Initiative grant, the Caracol Archaeological Project is hoping to turn over a new leaf.

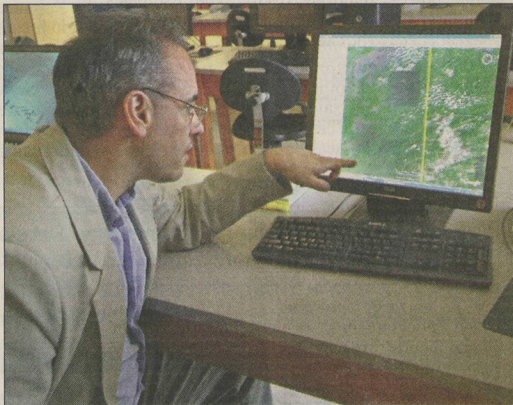
Using canopy-penetrating lasers, researchers will simultaneously map Mayan ruins and detail the forest structure.

"It is hard to see what is there without going in and ruining parts of the jungle," said Michael Johnson, dean and research coordinator for the College of Sciences. "We are in there, in a forgotten land, digging up forgotten people. This helps them see what was lost."

Caracol initially struck the interest of Arlen and Diane Chase, two UCF anthropology professors, when the duo completed preliminary visits to the ancient city in 1983. After falling in love with the history and culture, the Chases officially established the Caracol Archaeological Project in 1985.

The Chases, who returned this month from Belize, have come to know the tropical site as their second home. As directors of the Maya research, the couple has visited the site each year to further their investigations, excavations and research about the Mayan people and their culture.

"The Chases are such scholars and have been providing



SARAH ROGERS/SPECIAL TO THE SENTINEL

UCF biology professor John Weishampel (above) examines aerial shots from a satellite using lasers.

Anthropology professor Diane Chase (right) excavates with a brush at the Chultun burial site in Belize.



COURTESY OF CARACOL ARCHAEOLOGICAL PROJECT

beautiful information regarding their findings of ceramics and cultures and understanding of how this civilization functioned," said John Weishampel, a UCF biology professor.

Weishampel, a newcomer to the Maya initiative, was the recipient of the \$412,000 grant awarded in January.

"I think this is one of the biggest donations that the archaeological program has received so far," Weishampel said. "Certainly no one else is doing anything that we are doing. There might be some military group that has done something like this, but in terms of archaeology, this is unprecedented."

With their new funding, the archaeological team will map 200 square kilometers, Weishampel said.

They will use a series of mapping techniques to detect areas where ruins and other structures exist. Using satellites and radar, the team will be able to pick up figures from under the jungle canopy. They then will use the lasers to map the topography of the ruins.

"With the grant, we are being offered a chance to revolutionize how we do mapping in Maya archaeology," Arlen Chase said. "Mapping in the



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Arlen Chase, who, with his wife, Diane, established the Caracol Archaeological Project in 1985, shows a reconstructed pot.

jungle is very rigorous, and it is a very tedious process to map the landscapes. This will hopefully allow us once and for all to fully see the Maya landscape."

Weishampel said that the technological advances will be innovating.

"This is actually going to be mapping hard Maya limestone

structures in a large area," Weishampel said. "If you fly over it, all you see is trees. If you fly lasers over it, you begin to see the architecture and the ruins."

UCF archaeologists have mapped 23 square kilometers in 24 years, Arlen Chase said. With the lasers, they will begin to understand settlements and

agricultural features over many square miles at a faster pace.

"There were walkways, causeways, reservoirs as well as the buildings," Johnson said. "This mapping process will show much more than the little bit of a city that a shovel and hard labor can get through at a time."

In addition to providing the university with extensive research regarding the lost city and its people, the Caracol project also offers undergraduate students a chance to take part in the research.

"This is a complete rarity for students to be members of such a groundbreaking project," said Amanda Groff, who participated as both an undergraduate and graduate student, "and anyone who is interested in archaeology needs to experience participating in an archaeological opportunity like this."

Groff, now an adjunct teacher at UCF, said an average of three students is chosen to travel to the site during the spring semester for an estimated five to six weeks. Along with learning how to rough it, students participate in digs; clean, record and analyze artifacts; and work with the locals.

With student involvement and successful excavations, the Caracol project has "brought recognition not only to the Chases and the anthropology department but to the university as well," Johnson said. However, he said that there is still untapped territory awaiting exploration.

"I think there is a lot of unexplored information left to be learned," Johnson said. "These places were often lost, and it is a great field for new discoveries."