

Underwater exploration seeks evidence of early Americans

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Where the first Americans came from, when they arrived and how they got here is as lively a debate as ever, only most of the research to date has focused on dry land excavations. But, last summer's pivotal underwater exploration in the Gulf of Mexico led by Mercyhurst College archaeologist Dr. James Adovasio yielded evidence of inundated terrestrial sites that may well have supported human occupation more than 12,000 years ago, and paved the way for another expedition this July.

As part of their 2008 findings, the researchers located and mapped buried stream and river channels and identified in-filled sinkholes that could potentially help document the late Pleistocene landscape and contain artifacts and associated animal remains from early human occupations. Continued exploration, Adovasio said, will be geared toward assessing a human presence on the now submerged beaches and intersecting river channels.

"There's no doubt that early North American occupations are underwater, but it's like looking for a needle in a haystack," he said. "We have found the haystack; now we've got to find the needles."

That happens July 23-Aug. 7 when Adovasio leads a team of scientists representing leading institutions from government and higher education to St. Petersburg, Fla., where they'll resume their search for evidence of early Americans in an area 100-to-200 miles off Florida's west coast, now about 300 feet under water. For the second year, Adovasio will be

assisted by co-principal investigator Dr. C. Andrew Hemmings of Mercyhurst College and the Gault School of Archaeological Research in Austin, Texas. This year as last, the primary funding source is the National Oceanic and Atmospheric Administration (NOAA).

The decision to take their expedition underwater in the first place, Adovasio said, stems from the premise that early Americans probably hugged the American coastline, congregating around freshwater rivers, before heading inland. At that time, much of the world's water was confined to glaciers, causing ocean levels to be lower and exposing more of the continental shelf. As the earth warmed and water levels rose, evidence of past settlements became submerged.

Dredging and storms have turned up artifacts on the Gulf Coast as well as the Atlantic and Pacific coastlines, but Adovasio said this is the first time a group of scientists has staked out a submerged piece of real estate suspected of containing preserved Ice Age beaches and systematically gone in search of early human occupations.

From the University of South Florida's research boat, the team will use remotely operated vehicles and remote sensing tools to explore the submerged sites. In shallower depths, divers will inspect sites to collect artifacts and animal fossils and recover sediments for geological analysis and possible radiocarbon testing.

"Proof of past human habitation here would reinforce the disintegration of the once prevalent hypothesis about who the first Americans were, how they got here and when they arrived," said Adovasio, who rose to fame 30 years ago while excavating the Meadowcroft Rockshelter near Pittsburgh, Pa. Radiocarbon dating at Meadowcroft revealed the presence of human campsites as many as 16,000 years ago, which went a long way toward dashing the Clovis-first paradigm, holding that the first humans arrived in the Americas about 12,000 years ago, as revealed by a

site near Clovis, New Mexico.

The inaugural expedition confirmed many of the scientists' original hypotheses and earned second-year funding from NOAA in the amount of \$120,000, Adovasio said. Besides NOAA, additional supporters, providing everything from in-kind services to personnel, include the Mercyhurst Archaeological Institute, the Gault School of Archaeological Research, the Florida Bureau of Archaeological Research, the Florida Geological Survey, the University of South Florida, the University of Michigan and the University of Illinois at Chicago Circle, among others, Adovasio noted.

Source: Mercyhurst College

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