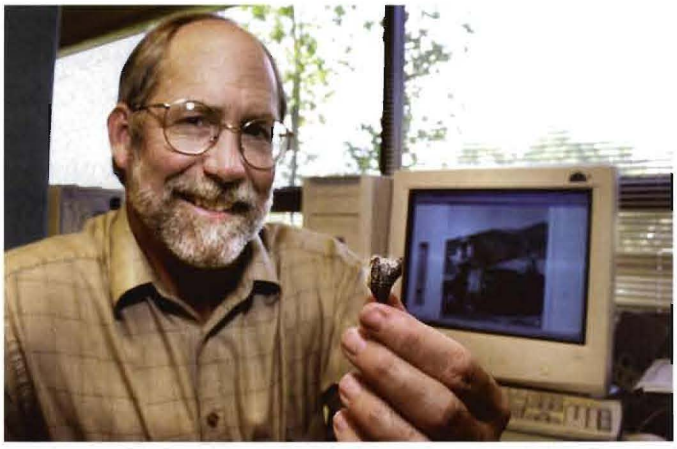
Talkin' Trash

With Archaeologist Terry Jones

By Jo Ann Lloyd



Social Sciences Professor Terry Jones holds an 8,000 to 9,000-year-old bone from an extinct flightless sea goose recovered from Diablo Canyon in the 1960s. (Photo by Patrick Swadener)

Terry Jones digs his job. With shovels and hand tools, some students and occasionally another archaeologist or two, Social Sciences Professor Jones explores ancient sites to gather clues to the past.

During the summer, Jones supervised a team of eight students at Fort Hunter Liggett in southern Monterey County, investigating a site inhabited by the Salinan Indians from around A.D. 1200 to 1800.

"I'm trying to establish the way they lived, what they ate, how often they moved," says the 49-year-old archaeologist, who thinks tree rings in the Southern Sierra suggest that severe droughts and a scarcity of water forced the Indians to move to better-watered areas of California, like the Coast Ranges.

But the project that most excites him is a California-Sea-Grant-funded venture that he's hoping will validate the relatively new theory that prehistoric people lived on the Central Coast 10,000 years ago – 5,000 years earlier than previously thought.

Artifacts from a 1968 dig, uncovered by archaeologist Roberta Greenwood before construction began on the Diablo Canyon Nuclear Power Plant, reveal a settlement that was used from that time until about the 18th century.

"Greenwood conducted extensive excavations at a series of sites," Jones says. "One site was very deep – about 12 feet." With limited funding, she was able to obtain only a few radiocarbon dates from items taken from the refuse heap, and they suggested human habitation during all those millennia.

"I want to confirm the age at the bottom of the deposit," Jones says. "Because the results were so much older than any other site, there was some skepticism about their accuracy." Since that dig, though, a number of more recent cases on the West Coast, in particular in Santa Barbara and the Channel Islands, also indicate human occupation from that time.

"Greenwood provided detailed analyses of the stone and bone tools found, but she didn't identify the animal bones that were food waste," Jones says. Several thousands of bones, dug up some 35 years ago, have sat in storage, in their original bags with dirt still clinging to them.

"In a lab class two years ago, we washed, catalogued and divided the bird, mammal and fish bones." Jones has enlisted the help of two specialists to identify the bones into species by comparing the ancient bones with those from known modern specimens.

"I'm especially interested in how diets have evolved. Were they more focused on deer or fish when they first arrived? I want to see how that has changed over the last 10,000 years."

In particular, he wonders how heavily they exploited the sea otter. And did that killing have an influence on other resources in the ecosystem? If so, just what effect did it have?

Jones anticipates his findings will show an unusually intense and lengthy exploitation of the sea otter, the key predator in Central California kelp forests. Otters were hunted for their meat and their pelts, he says.

Jones also predicts his findings will substantiate his belief that the kelp forests actually benefited from the hunting of the sea otter, that productivity of the Diablo kelp forests was sustained by – or at least associated with – regular killing of sea otters.

"They had a continuous and rich environment to exploit. That richness might have been sustained by the hunting of sea otters," he surmises.

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"These are all open questions. I want to publish my findings where they will be noticed by biologists and conservators – the people who make the rules about how we manage coastal resources.

"It may not be earth-shattering, but it may force them to think about how we manage habitats and resources today." ■