

# Gears of ROCKWELL HARDNESS

**N**obody's sure what went on in Bolsa Chica, CA, when gear-shaped stones were used there 8,700 years ago, but a popular belief is that at least some activity revolved around manufacturing.

"A few (stones) were found with human remains," says Patricia Martz, an archaeologist at California State University who researched the findings at Bolsa Chica because of her interest in preservation. "A few were found buried and some of these displayed various stages of manufacture. Therefore, it is thought that the site was a manufacturing and distribution center for cogged stones, because of the unfinished ones and because so many more have been found at this site than elsewhere in the region."

Thousands of such stones have been found at The Bolsa Chica Mesa, which overlooks the Bolsa Chica wetlands and the Pacific Ocean at Huntington Beach, CA. Some of them were shaped like gears and others were shaped like stars and donuts. Officially named CA-ORA-83, the mesa also contains arrowheads, beads, fish and animal bones, shellfish, fishing equipment, crystal, and plummet and charm stones that were collected by early archaeological investigators. Cogged stones were found along the Pacific coast and the Santa Ana River. Similarly contoured stones were found on a site called Quebrada Los Conchas in Chile. The stones at both sites dated back approximately 8,700 years.

The stones were unearthed as far back as the 1920s when archaeologists first began combing the Bolsa Chica territory. Approximately 20 years ago, even more were discovered when the

Hearthside Homes real estate development company hired archaeologists to prepare the land for groundbreaking.

More than 1,000 cogged stones were discovered at Bolsa Chica during the excavation project.

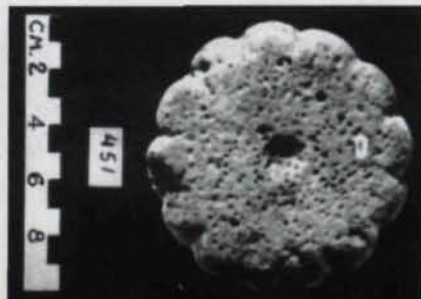
Because there were no markings or signs of wear on them, archaeologists conjectured that they might have some kind of tribal religious significance. Most of the stones were found on the surface of the burial site. According to speculation, they were placed above the cemetery for symbolic purposes, says Martz.

Another facet of the mystery is that they were found in stacks two to three stones high, says Chris Moser, curator of anthropology at Riverside Municipal Museum in Riverside, CA.

"It could mean a lot of different things," he says. "They could have been used as ritual objects or as weights on a fishing net. We'll never be able to know for sure."

In the 1920s, Samuel Evans, then mayor of Riverside, took it upon himself to solve the mystery of the cogged stones. He placed ads in newspapers soliciting geology experts and contacted local collectors and Native Americans for their help. He never reached any conclusion and died in 1932.

Not all the cogged stones are in museums, but they have all been removed from Bolsa Chica through the development process, according to Martz. After the archaeological team analyzed the stones, they turned them over to an archaeologist with a private rock collection. An album of slides and photos of the cogged stones exists at the department of anthropology curation facility at California State University in



"They could have been used as ritual objects or as weights on a fishing net. We'll never be able to know for sure," says Chris Moser, an anthropology curator, about some ancient gear-shaped stones.

Long Beach, CA.

The land, devoid of its cogged stones, soon will be split between the wetlands and an Orange County subdivision. Though the 1,200-acre wetland area has protected historical status, a real estate development group plans to build 388 tract homes on the upper part of the Bolsa Chica.

The cogged stones may not be around for rock enthusiasts to dig up anymore, but at least some of the stones are being preserved for gear aficionados everywhere. ⚙

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