Easter Islanders made tools, not war
Artifacts challenge idea that violence led to Rapa Nui collapse

**HUMANS & SOCIETY**

**BY BRUCE BOWER**

Sharpened stones previously viewed as spearpoints wielded by warring Easter Islanders actually served as general-purpose tools, researchers say.

Early European visitors to Easter Island, or Rapa Nui, wrote in the late 1700s that the islanders carried spears topped with sharp, triangular pieces of glassy lava, or obsidian. In the last 20 years, some researchers have suggested that fighting among spear-bearing groups — following the leveling of resource-rich palm forests around 1550 — largely destroyed Rapa Nui civilization before Europeans arrived.

But instead the islanders probably used the alleged spearpoints in a variety of ways that had nothing to do with killing, say archaeologist Carl Lipo of Binghamton University in New York and colleagues. These sharp rocks, known as mata’a, would have been useful for tasks such as cutting sweet potato plants into pieces for cultivation, cutting bananas off trees, stripping bark for rope and cutting ritual designs into people’s skin, perhaps to create tattoos, the scientists report in the February *Antiquity*.

Evidence of versatile uses for mata’a "adds to our understanding of how ancient Rapa Nui society flourished until well after initial European contact in 1722," says anthropologist Mara Mulrooney of the Bernice Pauahi Bishop Museum in Honolulu. Recent research suggests that farming on the island continued long after palm forests had been cleared (SN: 1/25/14, p. 9).

Mata’a had no standardized shape and rarely sported long, spearlike tips, Lipo’s team finds. These tools must have been fashioned with nonviolent purposes in mind, the scientists contend.

That conclusion rests on shape and size measurements taken from photographs of 423 mata’a. Most artifacts are in museums on Rapa Nui or in Hawaii. There are no precise age estimates for the finds, but mata’a date to before Europeans reached Rapa Nui, Lipo says.

A statistical analysis identified no consistent tool shape among these finds. Mata’a feature narrow stems and wide blades, but vary considerably within that format. Neither did Lipo’s group detect a distinctive set of spear-shaped mata’a within the larger sample. Even mata’a made from rock gathered at the same Rapa Nui obsidian quarries — of which five existed — and fashioned at the same toolmaking locations lacked signature forms.

Microscopic studies published 20 years ago suggested that scratches, polish and chipping on mata’a resulted from woodworking, Lipo adds.

Previous research indicated that obsidian tools resembling mata’a were used to cut up root crops, carve wood and perform other daily tasks on the Melanesian island of New Britain several thousand years ago.

Robin Torrence, an archaeologist at the Australian Museum in Sydney who codirected the work in New Britain, says Lipo’s new study can’t definitively rule out the use of mata’a as weapons. Although mata’a don’t look like spearpoints, she says, “these stone implements would be very dangerous if used as axes or clubs in close-combat fighting.”

Lipo considers that scenario unlikely. While any sharp-edged stone can be used on occasion to hurt others, no remains of hilltop forts or other defensive structures linked to warfare have been found on Rapa Nui, he says. Mata’a “were sharp rocks on sticks designed not as lethal weapons but for peaceful purposes.”