

Easter Island not destroyed by war, new analysis shows

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Credit: Binghamton University

A new study led by a Binghamton University archaeologist contradicts the belief that the ancient civilization of Rapa Nui, Chile, was destroyed by warfare.

An analysis of artifacts found on what was previously called Easter Island revealed that these objects were likely general purpose tools and not spear points, says Carl Lipo, professor of anthropology at Binghamton and lead author on the study, published this month in the journal *Antiquity*.

People have long believed that the island civilization ran out of resources and, as a result, engaged in massive in-fighting, which led to its collapse. Thousands of obsidian, triangular objects found on the surface, known as mata'a, seemed to support this theory. Because of their large numbers and because they're made of sharp glass, many believed the mata'a were [weapons](#) of war.

Lipo and his team analyzed the shape variability of a photo set of 400-plus mata'a collected from the island using a technique known as morphometrics, which allowed them to characterize the shapes in a quantitative manner. Based on the wide variability in shape and their difference from other traditional weapons, the team determined that the mata'a were not used in warfare after all.

"We found that when you look at the shape of these things, they just don't look like weapons at all," Lipo says. "When you can compare them to European weapons or weapons found anywhere around the world when there are actually objects used for warfare, they're very systematic in their shape. They have to do their job really well. Not doing well is risking death."

He says the mata'a wouldn't be lethal. "You can always use something as a spear," Lipo says. "Anything that you have can be a weapon. But under the conditions of warfare, weapons are going to have performance characteristics. And they're going to be very carefully fashioned for that purpose because it matters."

Lipo's study suggests that the [ancient civilization](#) never experienced the oft-theorized [warfare](#). Instead, the belief that the mata'a were weapons used in the collapse of the civilization is likely a late-European interpretation of the record.

"What people traditionally think about the island is being this island of

catastrophe and collapse just isn't true in a pre-historic sense," Lipo says. "Populations were successful and lived sustainably on the island up until European contact."

Lipo and his team believe that the mata'a are found all over the landscape because they were cultivation tools used in ritual tasks like tattooing or domestic activities such as plant processing.

"We've been trying to focus on individual bits of evidence that support the collapse narrative to demonstrate that really there's no support whatsoever for that story," he says. "Sort of a pillar of the broader study is the fact that this is an amazing society that really was successful. It just doesn't look like success to us because we see fields that are rock, we think catastrophe, and in fact it's actually productivity."

Provided by Binghamton University

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