

1,700-year-old spider monkey remains point to earliest evidence of primate captivity, translocation and gift diplomacy

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Complete skeletal remains of a 1,700 year-old female spider monkey found in Teotihuacán, Mexico. Credit: Nawa Sugiyama, UC Riverside.

The complete skeletal remains of a spider monkey—seen as an exotic

curiosity in pre-Hispanic Mexico—gives researchers new evidence regarding social-political ties between two ancient powerhouses: Teotihuacán and Maya Indigenous rulers.

The discovery was made by Nawa Sugiyama, a UC Riverside anthropological archaeologist, and a team of archaeologists and anthropologists, who since 2015 have been excavating at Plaza of Columns Complex in Teotihuacán, Mexico. The remains of other animals were also discovered, as well as thousands of Maya-style mural fragments and more than 14,000 ceramic sherds from a grand feast. These pieces are more than 1,700 years old.

The spider monkey is the earliest evidence of primate captivity, translocation and gift diplomacy between Teotihuacán and the Maya. Details of the discovery has been published in the journal *PNAS*. This finding allows researchers to piece evidence of high diplomacy interactions and debunks previous beliefs that Maya presence in Teotihuacán was restricted to migrant communities, said Sugiyama, who led the research.

"Teotihuacán attracted people from all over, it was a place where people came to exchange goods, property, and ideas. It was a place of innovation," said Sugiyama, who is collaborating with other researchers, including Professor Saburo Sugiyama, co-director of the project and a professor at Arizona State University, and Courtney A. Hofman, a molecular anthropologist with the University of Oklahoma.

"Finding the spider monkey has allowed us to discover reassigned connections between Teotihuacán and Maya leaders. The spider monkey brought to life this dynamic space, depicted in the mural art. It's exciting to reconstruct this live history."

Researchers applied a multimethod archaeometric (zooarchaeology,

isotopes, ancient DNA, paleobotany, and [radiocarbon dating](#)) approach to detail the life of this female spider monkey. The animal was likely between five and eight years old at the time of death.

Its [skeletal remains](#) were found alongside a golden eagle and several rattlesnakes, surrounded by unique artifacts, such as fine greenstone figurines made of jade from the Motagua Valley in Guatemala, copious shell/snail artifacts, and lavish obsidian goods such as blades and projectiles points. This is consistent with evidence of live sacrifice of symbolically potent animals participating in state rituals observed in Moon and Sun Pyramid dedicatory caches, researchers stated in the paper.

Results from the examination of two teeth, the upper and lower canines, indicate the spider monkey in Teotihuacán ate maize and [chili peppers](#), among other food items. The bone chemistry, which offers insight to the diet and environmental information, indicates at least two years of captivity. Prior to arriving in Teotihuacán, it lived in a humid environment, eating primarily plants and roots.

In addition to studying ancient rituals and uncovering pieces of history, the finding allows for a reconstruction of greater narratives, of understanding how these powerful, advanced societies dealt with social and political stressors that very much reflect today's world, Sugiyama said.

"This helps us understand principles of diplomacy, to understand how urbanism developed ... and how it failed," Sugiyama said. "Teotihuacán was a successful system for over 500 years, understanding past resilience, its strengths and weaknesses are relevant in today's society. There are many similarities then and now. Lessons can be seen and modeled from past societies; they provide us with cues as we go forward."

More information: Nawa Sugiyama et al, Earliest evidence of primate captivity and translocation supports gift diplomacy between Teotihuacan and the Maya, *Proceedings of the National Academy of Sciences* (2022).
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