

Mahlac Cave Pictograph Study

Ancient painted images, or pictographs, are found inside caves in Guam, Rota, Tinian, and Saipan. Their role in ancestral Chamorro culture is debated among scholars of Marianas prehistory.



White painted stick figures are most common but other images are rendered in red, brown and black. Simple stick figures, naturalistic, and geometric forms were created.



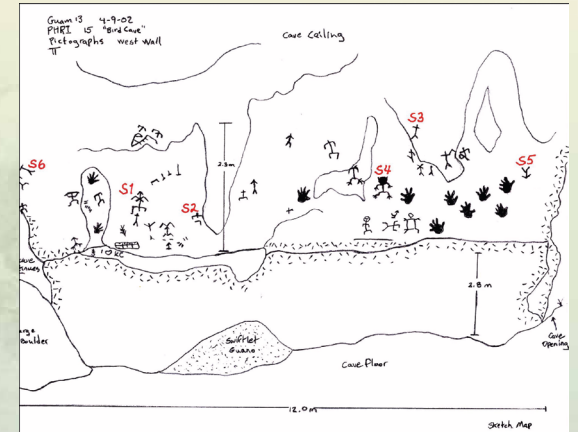
Bedrock mortars occur at a few pictograph cave sites, just outside the entrance.



In 2011 Dr. Hunter-Anderson went to Mahlac Cave with Navy biologist Paul Wenninger and Navy archaeologist Lon Bulgrin. The goal of the project was to learn more about the painted images inside. This site is unusual in its location high in Guam's southern mountains.



40+ pictographs cover the west wall of the dark chamber. The six images sampled are labeled in red.



Mahlac Cave is nesting site for the endangered Guam swiftlet (yāyaguak).

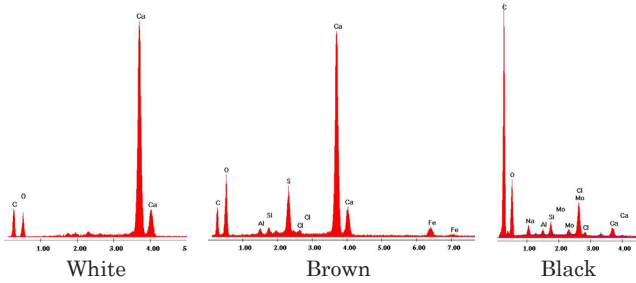
Working quickly and quietly, so as not to disturb the swiftlets, Dr. Hunter-Anderson removed tiny fragments of paint from six images using a dental pick.



Taking very small paint fragments from different parts of the images preserved their integrity.

Paint Analysis

Laboratory analysis of the paints by Dr. Marvin Rowe determined which elements are present.

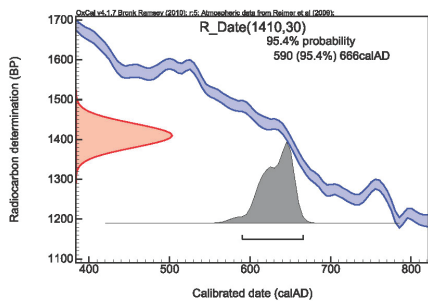


The white paint was made from lime.
 The brown paint was made from soil.
 The black paint was made from charcoal.



Sample 2

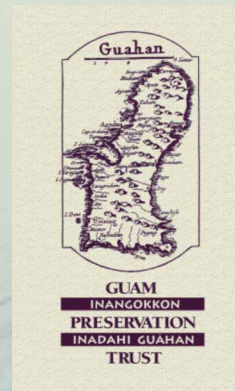
Microphoto of Sample 2



Radiocarbon dating of Sample 2 determined that the image was made about 1400 years ago. Other images in the cave may be older than this image.

A Study of Mahlac Pictograph Cave Images

It is unlawful for any person to take, appropriate, evacuate, injure, or destroy any prehistoric or historic ruin or monument or object of antiquity situated on lands owned or controlled by the territory of Guam.



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