

New technology for dating ancient rock paintings

March 11 2009

A new dating method finally is allowing archaeologists to incorporate rock paintings — some of the most mysterious and personalized remnants of ancient cultures — into the tapestry of evidence used to study life in prehistoric times. That's the conclusion of a new report in *ACS' Analytical Chemistry*.

In the study, Marvin W. Rowe points out that [rock](#) paintings, or [pictographs](#), are among the most difficult [archaeological artifacts](#) to date. They lack the high levels of organic material needed to assess a pictograph's age using [radiocarbon dating](#), the standard archaeological technique for more than a half-century. Rowe describes a new, highly sensitive dating method, called [accelerator mass spectrometry](#), that requires only 0.05 milligrams of carbon (the weight of 50 specks of dust). That's much less than the several grams of carbon needed with radiocarbon dating.

The research included analyzing pictographs from numerous countries over a span of 15 years. It validates the method and allows rock painting to join bones, pottery and other artifacts that tell secrets of [ancient societies](#), Rowe said. “Because of the prior lack of methods for dating rock art, archaeologists had almost completely ignored it before the 1990s,” he explained. “But with the ability to obtain reliable radiocarbon dates on pictographs, archaeologists have now begun to incorporate rock art into a broader study that includes other cultural remains.”

[More information:](#) *Analytical Chemistry* "Radiocarbon Dating of Ancient

[Rock Paintings"](#)

Provided by ACS

Citation: New technology for dating ancient rock paintings (2009, March 11) retrieved 20 March 2024 from <https://phys.org/news/2009-03-technology-dating-ancient.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.