



San Diego Rock Art Association Meeting

Sunday, April 3, 2016

Kumeyaay-Ipai Interpretive Center • 13104 Ipai Waaypuk Trail (formerly Silver Lake Drive) • Poway, CA 92064

The Cave Spoke Back: Sound and Rock Art

Steven J. Waller



Myths from around the world attest to the perception that echoes were spirits calling out from the rocks, revealing that complex sound phenomena perplexed pre-scientific cultures lacking wave theory. The hypothesis that ancient rock art locations were chosen for their sound reflection characteristics, and decorated with images that relate to the echo spirits believed to dwell there, is supported by quantitative acoustic measurements.

Furthermore, thunderous reverberation at cave art sites relates the images to myths of thunder gods, including galloping hoofed animals, thunderbirds, Lightning Brothers, etc. That echoes and thunderous reverberation have been misinterpreted as supernatural leads to a testable theory of auditory illusions as a possible explanation of the motivation for global rock art.

Steven J. Waller, Ph.D. (Biochemistry/Biophysics, U. VA 1981) has been conducting research in acoustical archaeology for nearly 30 years. His Rock Art Acoustics and Stonehenge theories have been featured in *Nature*, *New Scientist*, *The Wall Street Journal*, *Archaeology*, *Discover*, the BBC, and a British TV documentary. Steve was an invitational speaker at a University of Cambridge conference in 2003, the proceedings of which were published in the book *Archaeoacoustics*. He was the keynote speaker for Durham University's "Acoustics and Music in British Prehistory" 2009 research symposium. His research on auditory illusions is published in the book *Archaeoacoustics: The Archaeology of Sound*, the publication of proceedings from the 2014 Conference in Malta. He advocates the preservation of the natural soundscapes of archaeological sites. Steve is Vice President of SDRAA.

● **4:00 Potluck: Bring food of your choice to share** ● **5:00 Meeting and Presentations**

Meetings are included in your SDRAA Membership. Suggested Donation for Guests is \$5.00