

# Review of: "Collective Pareidolia"

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Response to Collective Pareidolia by Robert Bednarik

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This is an excellent paper that provides a powerful explanation for how people can be deluded into thinking they are looking at rock art when, actually, they are looking at rocks with no human modifications whatsoever. It is an important contribution to the literature of rock art interpretation. As a museum archaeologist, this will be a paper that I will refer to frequently, as I often am contacted by people who see human and other shapes in rocks when it's quite clear that their rocks exhibit no cultural modifications. Sometimes I can see the natural features of the rock that suggest such things as the "eyes" and "mouth" of the "face," but other times I am at a loss to understand what makes these people think they're seeing what they think they're seeing. I also occasionally have to introduce colleagues to the concept of pareidolia (e.g., Lepper 2012). Your paper will help me to persuade them all that seeing things that aren't there is at least an understandable mistake.

Although it is outside the scope of your paper, I think the phenomenon of collective pareidolia can also be found in claims that naturally broken rocks are actually crude stone tools. Again, I routinely have visitors to the museum bring in such rocks, and they are disappointed—indeed, some have become belligerent—when I tell them their rocks are not stone tools at all. And it's not just members of the general public. There are numerous examples of this kind of thing in the professional literature related to putative pre-Clovis sites in the Americas, such as the Calico Hills site in California (Leakey 1984:143-4), Pedra Furada in Brazil (Meltzer et al. 1994), the Pacaicasa phase in the Ayacucho Valley of Peru (Lynch 1990), and the so-called Alberta Palaeolithic Complex (Young et al. 1998). It would be interesting and informative to see such claims evaluated from the perspective of collective pareidolia.

I have one additional comment that is tangential to the main argument of your paper, but which I thought might be worth including. At one point, you note that "it has been shown unambiguously that a modern Westerner is incapable of correctly interpreting rock art made by indigenes." Fair enough – but modern Western archaeologists can and should seek the assistance of Indigenous people in the interpretation of rock art, in the same way that we seek the assistance of other experts outside of our disciplinary focus, such as paleoethnobotanists or radiocarbon dating technicians (Cloud 1929). As

part of an effort to determine the age and cultural context of Ohio's Serpent Mound, several colleagues and I employed methods pioneered by co-authors Carol Diaz-Granados and James Duncan, as well as by other participants in the Texas State University Mississippian Iconography Conference led by the late Kent Reilly, Jr., which involved interpreting the possible meanings of rock art motifs based on information from the traditions of the Indigenous peoples known to have historic associations with the regions in which the rock art occurred (e.g., Lepper et al. 2018). As part of this work, co-author John Soderberg used photogrammetric analysis to examine the Leo Petroglyphs in Ohio. His goal was to make more accurate assessments of the individual petroglyphs, which we then compared with the iconography of Serpent Mound as well as similar motifs at other documented rock art sites in midcontinental North America (Lepper et al. 2023). The detailed characterization of the morphology of each petroglyph helped to establish their precise form and extent. The widespread use of this technology certainly would help to eliminate the sorts of subjective analyses discussed in your paper.

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