Review of: "Collective Pareidolia"

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This paper is a follow-up to an earlier, more detailed paper on the same topic in Rock Art Research (Bednarik 2016), which the author cites, except that the social aspects of what drives pareidolia are now included in the mix. However, here the author fails to mention the fact that the social pressure relating to the propensity to see what is not there was referred to in a timely reply to his original Rock Art Research paper (see Hodgson 2017). In that reply, the role of psychological biases arising from cognitive dissonance and confirmation bias was highlighted, especially Asch's research on the latter. I would just add that because humans are such a prolific social species, it is inevitable that they would be influenced by others in a group, especially those in authority. This is borne out by the finding that followers of a belief system tend to be more prone to pareidolia than non-believers, not least because their outlook is reinforced by the group to the extent that the visual system is primed to see expected items (see Reikki et al. 2013). Moreover, face pareidolia is perhaps the most frequently experienced precisely because face recognition is essential to human social interaction.

I disagree with Caroline Watt and Richard Wiseman's comments where they downplay the role of neuroscience in understanding the phenomenology of pareidolia, as there have been a wealth of studies from that perspective that provide fascinating insights into the issue. See, for example, Salge et al. 2020, who found that "image vividness" (or hyperphantasia) is associated with a greater propensity to experience pareidolia in various scenarios (for further typical examples, see Bracci et al. 2019; Palmer et al. 2020; Zhou et al. 2020 [cited by both reviewers, with the first reviewer not regarding the results as relevant to collective pareidolia!]).

Pareidolia may, in fact, constitute a mild form of visual imagery that can be regarded as a kind of natural perceptual curiosity, which has positive survival value (known as "adaptive conservatism"). In a recent paper in Rock Art Research, I investigated the relationship of pareidolia with various intensities of visual imagery, from mild to extreme, and how such imagery impacts on interpreting rock art as well as understanding its inception (see Hodgson 2023). In that paper, I emphasise that rock art researchers tend to overemphasise the role of pareidolia at the expense of other kinds of visual imagery that can be just as useful, if not more so, to rock art research. For example, in Upper Palaeolithic cave art, there are almost no depictions of the human face, whereas the overwhelming number of depictions take the form of animals usually portrayed in outline profile. This suggests that something more than pareidolia was at work, which I suggested involves various kinds of visual imagery driven by several determining factors.

Regarding the role of emotional arousal, we have only to look at Post-Traumatic Stress Disorder to appreciate how this can lead to seeing or hearing things to do with traumatic past events in a person's life, which can be triggered by specific cues. This demonstrates that there is a definite link between visual imagery and arousal. Zhou et al. (2020) mention that,

even with pareidolia, there is an affective/emotional link to the experience. This is underwritten by Riekki and associates' (2013) research (highlighted by Zhou et al.) on the link between religious beliefs and pareidolia, which obviously has a strong emotional dimension as well as a collective social component. So I am in agreement with Bednarik on the role of emotion and social criteria in pareidolia but would encourage archaeologists and anthropologists to consider more broadly the complexities involved in imagery in a way that could benefit those disciplines.

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