

Review of: "Environmental Representations in Rocky Records in National Parks in Southeastern Piauí – Brazil"

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I thought that it was a good attempt to discuss rock art from the perspective of environmental science. The authors showed us the interesting rock paintings in Serra da Capivara and Serra das Confusões, as well as the rich history and culture in this region. And on this basis, they tried to establish the relationship between the rock paintings and environment.

The authors posed some interesting questions, such as what brings us back to rock art? What can it reveal to us as scientific data or as an object of study? Of course, rock art research is closely related to science, which does not mean that we simply regard rock arts as scientific data, but means that we should implement scientific ideas in the study of rock arts, Robert G. Bednarik has a good explanation of this in his book (Bednarik, 2001). It would be better if there were some more specific cases to support the relationship between them in the paper.

The authors mentioned another interesting and crucial question in the paper: *It was possible to recognize in the paintings – to date the numerous phytomorphic and zoomorphic rupestrian registers and their possible interpretations – non-existing species in the region currently and others that are totally extinct*. This question is closely related to the authors' thesis, that is, how to establish a direct link between the rock art images and the climate. However, the paper lacks specific analysis of rock art images. We do not know which animals are extinct or non-existent, which still exist today, or appear later from the rock art images. In other words, we don't know the environmental changes through the rock art images. In addition, the authors judged the age of the rock arts mainly according to the fauna shown in the images, but this kind of dating method is very risky, because it is mainly due to the subjectivity in the image recognition, it is easy to make mistakes, therefore, scholars are increasingly inclined to use natural technology to date (Aubert, 2011; Aubert M et al, 2014). It is better to use different methods to mutually verify.

Besides, the choice of environment includes macro environment and micro environment, the latter may be related to the myth of the local people. For example, in the Zuojiang Huashan Rock Art in Guangxi, China, most of the images face towards the South, part of them face towards the East and West, but none of them faces towards the due North. It must be relating to the ancestors' mystical idea about the due North. According to Ye Shuxian, there are two mythological modes on the universe of "Kun" and "Xi" from the world view of mythology. This is a classification model that built on the basis of binary opposition, that the unity of opposites between "Kun" and "Xi" constitutes the vertical system of the Mythological modes on the universe in ancient China. "In the 'Kun' mode, up equals to Yang, south, god, male, day (gas), bright, plus, summer, and day; and in the mode of 'Xi', down equal to Yin, north, ghost, female, water, dark, minus, winter,

and night "(Ye, 2019). Corresponding to the positive value that the 'Kun' model represents, the South becomes representative of the orientation of light and god, to the contrary, the North which was represented by the "Xi" mode becomes the orientation of negative and darkness. It would be better if the paper could include some more specific analysis of the rock art itself, especially the analysis of the correlation between the rock art and the environment, both macro and micro.

References

- Aubert M. *A review of rock art dating in the Kimberley, Western Australia* Journal of Archaeological Science, Volume 39, Issue 3, 2011.
- Aubert M et al. *Pleistocene cave art from Sulawesi, Indonesia* Nature, Vol 514, 2014.
- Bednarik R. G. *Rock art science : the scientific study of palaeoart* Turnhout: Brepols, 2001.
- Ye Shuxian. *Chinese philosophy of Mythology*. Bei Jing: Chinese social science press, 1992, p24.