

## Neuroecological Approach for Anthropological Studies in Archaeology

**Authors :** Kalangi Rodrigo

**Abstract :** The term Neuroecology elucidates the study of customizable variation in cognition and the brain. Subject marked the birth since 1980s, when researches began to apply methods of comparative evolutionary biology to cognitive processes and the underlying neural mechanisms of cognition. In Archaeology and Anthropology, we observe behaviors such as social learning skills, innovative feeding and foraging, tool use and social manipulation to determine the cognitive processes of ancient mankind. Depending on the brainstem size was used as a control variable, and phylogeny was controlled using independent contrasts. Both disciplines need to be enriched with comparative literature and neurological experimental, behavioral studies among tribal peoples as well as primate groups which will lead the research to a potential end. Neuroecology examines the relations between ecological selection pressure and mankind or sex differences in cognition and the brain. The goal of neuroecology is to understand how natural law acts on perception and its neural apparatus. Furthermore, neuroecology will eventually lead both principal disciplines to Ethology, where human behaviors and social management studies from a biological perspective. It can be either ethnoarchaeological or prehistoric. Archaeology should adopt general approach of neuroecology, phylogenetic comparative methods can be used in the field, and new findings on the cognitive mechanisms and brain structures involved mating systems, social organization, communication and foraging. The contribution of neuroecology to archaeology and anthropology is the information it provides on the selective pressures that have influenced the evolution of cognition and brain structure of the mankind. It will shed a new light to the path of evolutionary studies including behavioral ecology, primate archaeology and cognitive archaeology.

**Keywords :** Neuroecology, Archaeology, Brain Evolution, Cognitive Archaeology

**Conference Title :** ICAS 2020 : International Conference on Archaeological Sciences

**Conference Location :** Singapore, Singapore

**Conference Dates :** September 08-09, 2020