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Multi-scalar Characterization of Raw Materials

Session 8: Lithic Technology and Evolution

Hernán Juan Muscio [1] and Marcelo Cardillo [2]

1. CONICET. Consejo Nacional de Investigaciones Científicas y Técnicas. 2. UBA Universidad de Buenos Aires.

hmuscio@gmail.com, marcelo.cardillo@gmail.com

Lithic tools are part of the archaeological record of human evolution. Recent advances have shown the usefulness of the application of Evolutionary Theory in the analysis of past lithic technological systems to understanding how different species of the genus *Homo* and other primates procured, made, and used stone tools, and the way in which lithic assemblages document processes of cultural transmission and patterns of descent with modification.

The application of the theory of evolution to the study of lithic artifacts involves the consideration of a series of theoretical and methodological issues for documenting and explaining evolutionary patterns in lithic data sets. The goal of this session is to bring together a diverse group of scholars from all over the world who work beneath the umbrella of evolutionary research in lithic studies, in order to discuss issues such as the role of lithic artifacts in the diversification, adaptation, and geographical expansion of the hominid clade, as well as tool design, history and evolution of lithic lineages, innovation and extinction of artifact classes, and the life history of lithic artifacts. In line with the main interest of the symposium, an interesting question is the role of lithic raw materials in the organization of technology, behavior and evolution. We especially seek to promote the debate around the models used to describe evolution of lithic artifacts, considering the role of cultural transmission, selection, processes of biological and technological coevolution, and other mechanisms and contingencies promoting change, including design and technological constraints and the availability of lithic resources in each environment. On the other hand, we hope to contribute to the discussion of different methodological tools for documenting patterns in lithic datasets, such as cladistic analysis, geometric morphometrics (2D and 3D shape analysis), lithic taphonomy, micro- and macroscopic approaches to tool function, statistical modelling and experimental approaches, among others. Along this line, contributions discussing the lithic archaeological record of different species, societies, and economies from different regions of the world are welcome.