Session 7

**Geometric Morphometrics and the Study of Lithic Artifacts: Towards an Integration with other Approaches**

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Traditionally, there are several approaches to the study of prehistoric lithic industries, including technological analysis, raw material source, experimentation, traceology, taphonomic studies, measurement and typology, among others. The latter two long were the main ways of analysing form (size and shape) of artifacts in studies of lithic industries. The past decade has seen a sharp increase in a new approach to the study of form in archaeology: geometric morphometrics (GM). This approach allows the study of continuous variation in form and has been successfully applied to prehistoric stone tools (usually bifacial points or other formal artifacts), making form a valuable source of information which can be considered relevant to understand the dynamics of human groups in the past. The shape coordinates generated by geometric morphometrics can be further explored using multivariate statistics and can reveal spatial and/or temporal patterns of distribution of prehistoric artifacts. In this sense, results obtained by geometric morphometrics analysis can be compared to, complemented by, or even contrasted with results obtained from other approaches, including technology. GM can revolutionize the analysis of production sequences, defining tool types and transitions between successive ones, patterns and degrees of tool resharpening and other areas of lithic studies. The goal of this symposium is to promote interaction among researchers who have applied geometric morphometrics to lithic industries all over the world, as well as to increase awareness of the potential of such approach in archaeology. We aim to present geometric morphometrics as a useful tool to investigate lithic artifacts, as well as to discuss the current limitations and future developments of the use of geometric morphometrics in the study of lithic industries.