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Multi-scalar Characterization of Raw Materials

## Session 14: Assessing Raw Material Influence on Lithic Artifact Modifications

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It has long been suggested, and tested, that the differences in the mechanical properties of lithic raw materials may influence lithic procurement and production systems, technological strategies, tool durability and suitability, breakage, and also patterns of physical and chemical alterations. We would like to take the opportunity provided by this session, to focus on the last two - functional breakage and taphonomic alterations - with special interest in the application of taphonomic approaches, especially those studies devoted to the identification of cultural and natural trends in the lithic record.

Numerous researches have explored the role that the differences in lithic raw material properties such as brittleness, hardness, texture, inclusions, size, and form have played in shaping the morphological and spatial attributes of lithic assemblages. For instance, while mechanical properties may not influence fracture types, they can affect the frequency of breakage or edge damage. As well, rock mineral composition is a key factor that may enhance or diminish the capability of an artifact to record reclamation events.

In this session, we invite researchers to present works that explore the variability introduced by the properties of lithic raw materials in the patterns of artifact breakage and/or in taphonomic effects. Researches dealing with different natural and anthropic processes, actualistic perspectives (experimental and naturalistic studies), methodological issues, as well as case studies are welcome.