



Microdebitage and the Archaeology of Rock Art:
an experimental approach

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Microdebitage and the Archaeology of Rock Art: an experimental approach

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Abstract

The search for a reliable and non-invasive technique for the dating of rock art has produced an array of different, localised, and limited techniques. This is one of them. Still in its experimental stage, the recognition of quartz microdebitage produced by the pecking of engravings is the aim of this project.

This investigation aims to establish whether microdebitage from rock engravings can be distinguished from other sediments. Analysis of microdebitage from rock engraving experiments was used to determine the difference between experimental and naturally derived particles. This research discusses methodology, and applications for the recognition of quartz grain features, derived from experimental and natural material from Mutawintji National Park (Broken Hill, NSW, Australia) and the Sydney region (NSW Australia).

A three-step process was devised for this research:

- What features occur on *non-cultural* quartz grains?
- What features occur on *rock engraving* quartz grains? Are they different?
- Can *rock engraving* quartz microdebitage be identified under natural conditions?

Microdebitage from rock engravings was examined using optical and scanning electron microscopy to identify diagnostic attributes, with the objective of assessing the potential of microdebitage for spatial and temporal archaeological investigation. Characteristics of the quartz grains in the microdebitage were compared with quartz from differing environments. The observation of diagnostic features on quartz grains made it possible to discriminate between microdebitage from rock engravings and the natural soil background. This knowledge may be applied to excavated material from archaeological sites, for identifying episodes of rock engraving and other lithic activity in temporal relation to other evidence of cultural activity.

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