THE ARCHAEOLOGICAL POTENTIAL OF INFORMAL LITHIC TECHNOLOGIES: A CASE STUDY OF ASSEMBLAGE VARIABILITY IN WESTERN NEW SOUTH WALES, AUSTRALIA

By

Matthew J. Douglass

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Abstract

This thesis addresses the research potential of informal lithic technologies through a case study of surface deposits from western New South Wales (NSW), Australia. The defining characteristic of the lithic remains of the region is a dearth of formalized patterning. As a consequence, researchers have historically equated these remains with a casual approach to lithic technology where it is often assumed that artefacts were produced on an as needed basis.

This apparent simplicity is in marked contrast to the demanding environment of the region. Water and food resources are extremely limited and historic observations indicate that Aborigional populations coped with these conditions by employing strategies of land use based on short-term occupations and high mobility. It is therefore an anomaly that populations living under such conditions would be so unconcerned with the organization of their technology.

An exploration of this anomaly guides the research presented in this thesis. Was the organization of Aboriginal lithic technology truly simple or instead is the perception of simplicity an artefact of previous interpretation? The goals of this thesis go beyond questioning the perception of simplicity to the larger question of how informal technologies can be used to understand past behavioural organization.

To investigate these questions, this thesis makes use of an abundance of assemblage data gathered by the Western NSW Archaeological Programme. The results of this research indicate that while the vast surface record of the region may present what appears to be a largely undifferentiated record, contextualization shows that Aboriginal occupation of the region was anything but uniform. Chronologies developed through extensive radiocarbon dating demonstrate that periods of increased

aridity are correlated with decreased evidence of Aboriginal occupation, thus suggesting territorial reorganization in the face of environmental deterioration.

The study of lithic technological organization and the curation concept provide a theoretical perspective with which to explore the possibility for similar dynamism in the largely informal lithic technologies of the study region. While current studies of stone artefact curation are largely based on retouched tools, the curation process may exist in the absence of retouch. A methodology based on the quantification of cortical surface area is presented as one means through which curation without retouch may be explored. This methodology is based on the principles of solid geometry and enables comparison between the quantities of cortex observed in lithic assemblages and that which should be present given the size and shape of the stone nodules from which artefacts were produced. Deviations between observed and expected values indicate the effects of artefact transport on assemblage formation.

Application of the cortex methodology indicates that cortex is extensively underrepresented in the NSW assemblages, meaning artefacts were transported away from their place of production. This result is in marked contrast to the perception of Aboriginal technological expedience. Further investigation of the cortex methodology, the development of refined techniques and the completion of additional fieldwork enabled a more in-depth test of the initial result. Viewed from a variety of perspectives, further study supports the initial interpretation.

Utilizing spatial patterning in assemblage cortex proportions, the data for this study are then used to investigate the scale of Aboriginal mobility. Interpretation of this patterning provides insights into the organization of land use at a landscape scale and thus demonstrates a greater appreciation of the potential for informal lithic technologies to inform on the organization of the past.

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