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**Future Directions for Research into Open Sites and Rockshelters in the Inland Pilbara**

By Ben Marwick

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**Introduction**

Archaeological work on Aboriginal sites in the inland Pilbara has been going on for over 30 years. The purpose of this paper is to show that the research themes currently driving consulting work in the inland Pilbara are in need of updating and to suggest some future directions. To identify the criteria for assessments of archaeological significance I reviewed a random sample of twenty reports of archaeological cultural resource management work (including survey, salvage and excavation) from the last ten years. These reports are held by the Western Australian Department of Indigenous Affairs. I looked at criteria used to assess archaeological significance in each report because these are the measures of the ability of a site to contribute to the discipline of archaeology and they indicate the issues that archaeologists consider relevant in their analysis of sites. Two new approaches are proposed (one for surface artefact scatters and one for excavated assemblages) to complement the existing approaches. This study does not include consideration of other measures of
significance such as aesthetic significance or spiritual and historical significance to Aboriginal people.

Current research themes

The review of reports revealed that there are three common research themes used to assess archaeological significance. Firstly, archaeologists are interested in testing previous syntheses of site distribution over different landscape types such as those suggested by Brown (1987) and Kee et al. (1985). In brief, these syntheses conclude that sizes and densities of archaeological sites increase in direct proportion to distance and permanence of water sources. This topic is especially relevant for surface surveys because it makes predictions about the distribution and density of sites that are useful for designing survey methods.

Secondly and similarly, archaeologists are interested in testing the models of Veth (1993) and Hiscock (1988) which predict, among other things, that sites will be larger and more diverse when they are closer to larger and more reliable sources of water and stone. The appeal of this second theme is also enhanced by its relevance to site distribution and survey methods. Thirdly, archaeologists are interested in questions about the timing of events and changes previously documented in surrounding regions or on a continental scale. These include the first human occupation of the region, the response to the Last Glacial Maximum, the timing of the introduction of new varieties of stone tools and the timing of changes in population dynamics.

Problems with current research themes

These themes were well suited to the initial phases of research when few details were understood about how culture, technology and economics changed over time in the inland Pilbara and how people used the landscape. They were also well suited to methods of site and artefact recording that were generally less detailed than they are now. Now that we have moved on from the initial phases and there are more detailed data about how people lived in the inland Pilbara, these themes no longer lead to substantial contributions to our understanding of human behaviour and are not well suited to available archaeological evidence from the inland Pilbara.

Although important to begin with, the first and second current research themes provide only a coarse-grained understanding of how people used the landscape in the past. The first and second current research themes are popular because they are relevant to survey methods. However they now have been tested and generally confirmed by a large body of survey work from the last ten years (e.g. Hook and Jackson 1998, 2000; Hook et al. 1998a; Jackson 1994, 1999, 2000; Jackson and Di Lello 1999; Jackson and Martin 1998; Jackson and Fry 2000; Jackson, Fry and Martin 1999; Jackson et al. 2000). We now need to go beyond questions of where people were in their environment to look at questions about what people were doing in these environments or how they were doing it. The third current research theme, questions about the timing of events, can only be answered if there is evidence of these events. The majority of previously excavated rockshelters in the inland Pilbara date to the middle and late Holocene and have little or no recoverable cultural material (e.g. Hook et al. 1998b, 2000). This means that generally there is not enough information from excavations to answer questions related to the first human occupation of the region, the response to the Last Glacial Maximum, the timing of the introduction of new varieties of stone tools and the timing of changes in population dynamics.

Future research themes

This survey of 20 consultant reports and recent syntheses of inland Pilbara archaeology (Marwick 2002; Veth 2003) suggest that there are now enough data from the inland Pilbara to update these themes. In addition, new methods and interpretative frameworks have appeared since the formulation of the three current research themes. Some archaeologists working in the inland Pilbara are routinely recording information such as debitage and flake attributes which is not being fully utilised by the current research themes. The current research themes generally only use density and diversity data from stone artefact scatters and do not fully utilise the more detailed metric and technological data that is currently being collected by many archaeologists working in the inland Pilbara. Two approaches are proposed here that will more fully utilise the data that are being collected and provide more substantial contributions to our understanding of inland Pilbara archaeology and better assessments of the significance of sites.

Firstly, to get the most out of the current methods I propose an approach to inland Pilbara stone artefact assemblages that focuses on technological strategies and reduction sequences. This kind of chaîne opératoire approach involves understanding the processes of stone tool manufacture, use, maintenance and discard at a site through the analysis of technological and metric attributes (Andrefsky
those of the inland Pilbara. This tension between the successful application of mobility studies in other parts of the world and the findings of Australian ethnoarchaeological research suggests that this approach could be fruitfully pursued in the inland Pilbara and potentially improve our understanding of hunter-gatherer mobility strategies and artefact technology. This type of analysis will provide detailed information on what people were doing with their stone resources and how environmental and cultural variables influenced site formation.

The second approach proposed here is a focus on the process of change in excavated assemblages. The creation of timelines based on the appearance of artefact types no longer makes substantial contributions to our understanding of how people lived in the past. We need to focus on understanding why people changed and how they changed. A focus on rockshelter excavations that are larger in volume and area will provide a larger sample of artefacts from rockshelters and increase the probability of detecting changes in the way the sites are used. It will also improve the reliability of analyses of change in the assemblages. Understanding of change over time can be improved through the analysis of sources other than the sparse cultural material, such as rockshelter sediments and pollen. Recent work (Marwick 2002) has identified patterns of technological, cultural and demographic changes in the inland Pilbara during the Holocene. Future excavations should aim to test and refine these patterns instead of testing models developed for other regions or continental scales. This will produce a more detailed and relevant picture of how people lived in the inland Pilbara.

**Conclusion**

In this paper I have examined the current criteria for evaluating the archaeological contribution of archaeological sites in the inland Pilbara. The current approaches no longer provide substantial contributions to the discipline and do not fully utilise the quality of data that is now being regularly collected from the inland Pilbara. Two new approaches are suggested as complements (rather than replacements) to the current approaches. The first approach is the analysis of reduction sequences and mobility organisation at surface artefact scatters. The second approach is a focus on the process of change in rockshelter assemblages.

Many archaeologists who work in the inland Pilbara might ask ‘why is it important to update the research questions for the inland Pilbara?’ There are two reasons why it is important to...
review the way archaeological resources are scientifically assessed. Firstly, we have to produce accurate and detailed descriptions of how people lived in the past and better understand how they responded and adapted to change. Archaeologists have a professional obligation to tell stories about the past that reflect our best understanding of what happened. Secondly, we have to strive to improve the quality of cultural resource management in the inland Pilbara. New ways of describing and interpreting sites mean that there are new ways to evaluate their rarity, representativeness and research potential (Bowdler 1984), the three major aspects of archaeological significance. This does not mean that we have to agree with and slavishly adopt any new approaches to the evidence, only that we must engage with them to demonstrate our involvement in the discipline. The burden of the consultant archaeologist is to be familiar with the current state of archaeological research in order to make management recommendations that are sensitive to current scientific and social interests.

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References


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The Yamatji/Pilbara Standard Heritage Agreement and its Implications for Consultant Archaeologists

by Nicholas Green

Introduction

This paper has been prepared in order to help explain the new Standard Heritage Agreement (SHA) that has been negotiated by the Yamatji Marupa Barna Maaja Aboriginal Corporation (YMBBMAC) Representative Body (under the Native Title Act 1993) with the Chamber of Minerals and Energy (CME) in Western Australia.

The SHA has been endorsed by the Western Australian Government and is being actively promoted with the mining industry by the Department of Industry and Resources (DoIR). A copy of the SHA is available on DoIR’s web site. It should be noted that other Representative Bodies in Western Australia have or are in the process of negotiating similar agreements with the CME.