



# Dampier Archipelago Petroglyphs: Motif and trait analysis in the assessment of scientific values of a rock art province

by Jo McDonald\*

## INTRODUCTION AND SUMMARY OF THE AUSTRALIAN LISTING PROCESS

*Following amendments to the Federal Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), a National Heritage List (NHL) was established in Australia in 2004 to recognise and protect natural, historic and Indigenous places of outstanding heritage significance to the Australian nation. The Dampier Archipelago in Western Australia (Figure 1) was nominated in 2004 for inclusion on this National Heritage List. Jo McDonald and Peter Veth were commissioned by the Department of Environment and Heritage (JMcD CHM 2005 and 2006) to assess the scientific values of the nominated area for the Australian Heritage Council (AHC), with particular consideration being given to the values of the rock art (or petroglyphs).*

## RIASSUNTO

*In seguito all'emendamento all'Atto Federale sulla Protezione Ambientale e sulla Conservazione della Biodiversità del 1999 (EPBC Act), nel 2004 è stata istituita una Lista del Patrimonio Nazionale allo scopo di riconoscere e proteggere aree naturali, storiche e d'interesse etnografico di notevole importanza per la nazione australiana. L'Arcipelago di Dampier, nel Western Australia (Figura 1) è stato indicato nel 2004 come uno dei possibili siti da inserire nella Lista del Patrimonio Nazionale. Jo McDonald e Peter Veth hanno ricevuto l'incarico da parte del Dipartimento per l'Ambiente e il Patrimonio (JMcD CHM 2005 e 2006) di stimare il valore scientifico di quest'area per il Consiglio Australiano del Patrimonio (AHC), mettendo in rilievo il valore apportato dall'arte rupestre.*

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In late 2006, the AHC published their recommendations which found that five of the seven EPBC Act heritage criteria had been met ([http://www.deh.gov.au/heritage/laws/publicdocuments/pubs/105727\\_07.pdf](http://www.deh.gov.au/heritage/laws/publicdocuments/pubs/105727_07.pdf)). It is only necessary for an area to meet one criterion before a nominated area can be added to the List. Boundaries were suggested (Figure 2) which included all lands which met the criteria. In October 2006, the (then) Federal Minister for the Environment and Heritage, Senator Ian Campbell, exercised his Ministerial discretion and sought further public comment. This resulted in a plethora of public submissions and unheralded media and internet commentary. In February 2007, the Honourable Malcolm Turnbull (Minister for the Environment and Water Resources) deferred making his decision on the Listing until the boundary issue can be resolved with the various Industry partners.

Industry here includes iron ore and gas field related infrastructure (Woodside, Hamersley Iron and Dampier Salt are three of the biggest stakeholders). This industrial precinct was established in the 1970s without adequate prior assessment of the area's heritage values (Bednarik 2002; Vinnicombe 2002). While Industry and the WA State Government have vacillated in their support of the Listing – it appears now that most stakeholders now support Listing.

## THE DAMPIER ARCHIPELAGO STYLE PROVINCE

The petroglyphs of the Dampier Archipelago style province demonstrate extreme stylistic heterogeneity, are likely to span deep time and reveal the operation of inside/outside social dynamics. The archaeology and rock art of the Dampier Archipelago provides an outstanding and arguably unique example of long-term Aboriginal occupation of an arid littoral landscape from northern Australia. The many thousands of

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sites and (likely) millions of engravings are spread almost continuously across the entire Burrup Peninsula and through to the most remote islands of the Archipelago. There is an abundance of related cultural features (including unusual and complex stone arrangements, fish traps, standing stones and extensive stone quarries). There are also major domestic foci across this cultural landscape. The art and the associated archaeological evidence form a near-continuous land and seascape (JMCD CHM 2006).

**ANTHROPOMORPHS**

This paper focuses on the anthropomorph petroglyphs, which represent more than 40% of the motifs engraved here. Our assessment of scientific values also analysed other motifs: turtles, fish and kangaroos. These motifs revealed similarly high levels of stylistic diversity – but there is not space to discuss these here. The analyses undertaken were concerned with demonstrating this art province’s style characteristics or schemata, regional art relationships and uniqueness in the Australian context.

I am particularly interested in how depictions of people, “anthropomorphs”, in rock art assemblages inform us about the culture and the artists that produced them. Across many Australian regional style provinces we have a strong sense that the rock art is imbued with people in their artistic landscape(s). The continent’s figurative rock art styles, with regional emphases on particular traits and variable schematisation, provide insights into how different social networks operated. The development through time of the figurative regional styles – out of an earlier highly iconic graphic structure where humans only appear as visual signs appears to demonstrate a fundamental shift in the production of graphic systems through time – particularly in terms of its intended audience. In the earliest art, the interpretation of the graphic vocabulary relied heavily on levels of initiation and social context. In the more recent art – while often still visually ambiguous – pictures are clearly motivated by visual resemblance to the subject, and the art contains a plethora of motifs that can be interpreted - by ethnic observers – as “looking like” the natural and cultural landscape. The motif category “anthropomorph” has been shown to be useful for interpreting stylistic variability in rock art assemblages as the combination of compositional features appear to demonstrate high levels of ethnically significant patterning (Sackett 1990).

The analyses undertaken for the Dampier Archipelago scientific assessment was based on an assemblage of 9,283 motifs (JMCD CHM 2006). A total of 464 petroglyph sites were used in these analyses. Summarised anthropomorphic forms are shown (Table 1).

Anthropomorphic diversity on the Archipelago is extreme. This can be seen particularly in comparison with other Pilbara styles (Wright 1968; Franklin 2004) and with regional figurative styles documented elsewhere in Australia (e.g. Cobar, Laura, Sydney, Mt Isa: e.g. McCarthy 1977; Trezise 1971; McDonald 1994; Ross 1997).

**TABLE 1: PROPORTIONS OF THE DAMPIER ARCHIPELAGO ANTHROPOMORPHS COUNTED.**

<b>Anthropomorphic Motif Classes</b>	<b>No.</b>	<b>%f</b>
Stick figures	331	36.7
Solid figures	215	23.9
Outline figures	37	4.1
Profile Figures	66	7.3
Complex figures	9	1.0
Anthropomorphs with material objects	101	11.2
Lizard men	51	5.7
Groups of anthropomorphs	67	7.4
Therianthropes	13	1.4
Decorative Infill	11	1.2
	901	100.0

*STICK FIGURES*

Stick figures have been previously defined as motifs where “the dimensions are almost uniformly thin” (Wright 1968: 24) or “body, arms and legs all the same width” (Vinnicombe 2002: 18). These are the most commonly depicted type of anthropomorphs, but there is considerable variability in the manner that these are drawn. In all, 67 varieties of stick figure were identified from the 331 stick figures counted.

*SOLID FIGURES*

Solid figures have infilled bodies that are generally fatter than their limbs. This is the second most common form of anthropomorphs sampled across the Dampier Archipelago. This form of anthropomorph shows clear localised stylistic heterogeneity, with a number of distinct Burrup depictions. Amongst these is a form previously identified (Green 1982, Vinnicombe 2002) of anthropomorphs with disconnected circular

heads. The current analysis demonstrated that a variety of body and limb shapes are used in this particular style of figure (Figure 3).

#### *ANTHROPOMORPHS ASSOCIATED WITH MATERIAL OBJECTS*

Boomerangs are the most commonly depicted items of associated material culture. Symbolically arranged boomerangs have been described by informants “(as) clapping sticks associated with music and ceremony rather than with activities such as hunting or fighting” (Vinnicombe 2002: 19). Several combined traits can now be defined as characteristic of this art province, being found in various forms across the Archipelago (Figures 4 and 5). These include:

Stick figures with a boomerang or straight stick held in one or both hands;

Stick figures with between one and four boomerangs placed over the top of the head;

Stick figures with either straight or curved (concentric) lines overlapping with the lower body;

Stick figures with the positioning of boomerangs symmetrically on either side of the body, curving outwards under the arms or inwards around the arms;

Stick figures with a boomerang or straight stick on either side of the body, a dot on either side of the head and boomerang over the head; and,

An elongated stick figure with (usually) four arcs across the mid-body line, short legs with perpendicular bar feet and a round dot infilled head.

#### *LIZARD MEN*

These anthropomorphic figures are defined by the fact that their genitalia are longer than their legs. They have various body shapes and are often associated with various forms of material culture (headdresses and weapons).

#### *PROFILE FIGURES*

A relatively small proportion of the anthropomorphic depictions on the Archipelago are in profile view or in mixed perspective.

#### *OUTLINE FIGURES*

This form is more commonly found amongst Simple Figurative styles (e.g. Port Hedland, Sydney Basin), and is not as common on the Dampier Archipelago as stick figures or solid figures.

#### *COMPLEX ANTHROPOMORPHIC FIGURES*

These relatively rare figures occur as part of complex but otherwise (non-figurative) designs.

#### **GROUPS OF ANTHROPOMORPHS**

The purposeful grouping of anthropomorphs is a characteristic of the Dampier Archipelago petroglyphs. Anthropomorphs in this category are either intricately composed or joined in some manner. Forty-three different configurations were identified during this analysis. Some common varieties of this type are shown (Figure 6).

#### *THERIANTHROPS*

Therianthropes (creatures with mixed human and animal features) account for only a very small proportion of the assemblage. The therianthropes recorded on the Archipelago have kangaroo/human characteristics, lizard/human characteristics, bird/human characteristics or bat-like features.

#### *DECORATIVE INFILL*

This small group of motifs appears to be of considerable antiquity. These motifs are highly decorative, with either dot or internal line decoration. They are usually large (up to 2m in length), although some smaller examples exist. These are characterised by a mixture of techniques (pecking, rubbing and abrading). While being highly decorated, these rarely have facial features.

#### *GENDER*

Many of the anthropomorphs can be attributed gender on the basis of their identifying physical sex characteristics (genitalia and breasts). Many images are ambiguous, however, because of the characteristics given, i.e. these are exaggerated or multiple (mixed) gender characteristics given.

A category of ‘Lizard men’ accounts for a number of images where the penis of the anthropomorph is longer than the legs. The definition of a male human must (conservatively) be that the penis is shorter than the legs (and see Lorblanchet 1992; Vinnicombe 2002; Hayes-Gilpin 2004). As the intention of the artist cannot be assumed, we do not know whether these depictions are meant to signal the male gender – their potency – or perhaps therianthropic characters – such as the mythic *Wati Kutjarra* (two Lizard Men). These motifs account for 7% of the anthropomorphs counted.

Almost half of the gendered anthropomorphs in the Dampier Archipelago art province are male. Many (34%) have no gender information while some (3%) are ambiguous. Females depicted on their own are relatively rare (6.5%). These gender proportions are interesting given Wright’s (1968: 44) findings for the Pilbara. In several regional assemblages (e.g. Upper Yule, Sherlock and Hooley Stations) females represented 20-40% of the anthropomorphic depictions.

#### **CONCLUSIONS**



There are a number of unique schemata as well as definitive regional graphic vocabularies amongst the anthropomorphic depictions of the Dampier Archipelago. It is the unique schemata that reveal the essence of this art province. The Archipelago demonstrates significantly more diversity than any of the Pilbara-upland art provinces and includes examples of the smaller provinces with additional unique forms. This area would appear to have operated as a major aggregation locale (Conkey 1980; McDonald and Veth 2006) throughout at least the Holocene.

MANAGEMENT IMPLICATIONS OF THE ART ANALYSIS

Art has been produced on rock of the Burrup Peninsula probably since the last Pleistocene. There is evidence for diachronic change in the way art was produced here as the sea level rose to its current position at this upland became an Archipelago. Rock art analysis reveals synchronic variability across the Dampier Archipelago petroglyph province in both theme and schema. This is significant as it means that no one area of the Archipelago is necessarily representative of the whole. The basic precept of cultural heritage management is that a good conservation outcome must include a representative sample. Hence, as this analysis identified that localised variability exists, the conservation outcome required the inclusion of the full range of landscapes. This conclusion differed from the stated preference of Industry and the WA State Government – who generally subscribed to the northern 40% of the Burrup Peninsula representing a sufficient conservation outcome. This preference would have left the expansion of Industry unimpeded by heritage values across the other 60% of the Burrup which has been designated as suitable for Industry over the last 20 years, but is as yet undeveloped. The current controversy regarding the Woodside’s expansion in Pluto A and B is a case in point ([http://www.dampierrockart.net/Media/2007-02-28\\_ABC.pdf](http://www.dampierrockart.net/Media/2007-02-28_ABC.pdf)).

Both our reports (JMCD CHM 2005, 2006) recommended that all of the Dampier Archipelago – bar those areas already destroyed by existing Industry - should be included within the National Heritage listed area. This recommendation has been accepted by the Australian Heritage Council (see Figure 2). We are hoping – and are fairly confident - that the Australian Government will list the area recommended and that a detailed Plan of Management will be introduced to ensure that this outstanding heritage landscape will be conserved.

The analysis of local and regional traits in anthropomorphic depictions (among a number of other motif types) has assisted in demonstrating that the Dampier Archipelago petroglyph province is of outstanding scientific significance.

LEGEND OF ILLUSTRATIONS

Figure 1: The Dampier Archipelago in the north-west of Western Australia.

Figure 2: Proposed AHC boundary for Listing.

Figure 3: Examples of distinctive “dot-head” human figures.

Figure 4: Anthropomorphs with stylised associations of boomerangs.

Figure 5: Dampier Archipelago Anthropomorphs associated with material objects: showing distributions.

Figure 6: Examples of Dampier Archipelago grouped anthropomorphs.

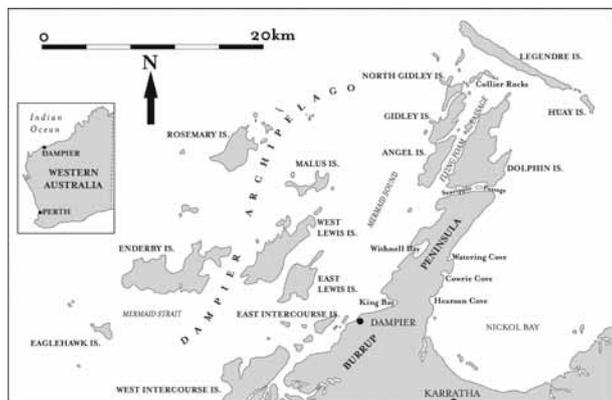


fig. 1

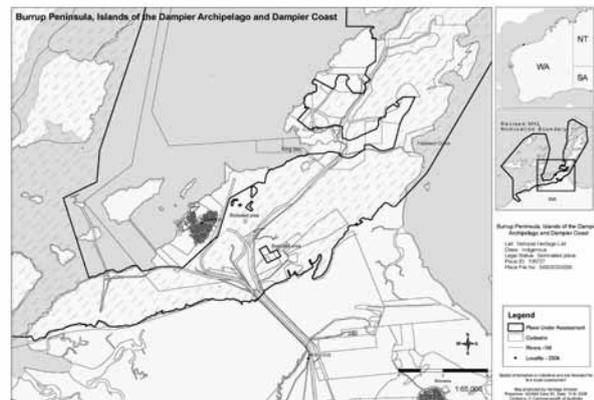


fig. 2



fig. 3

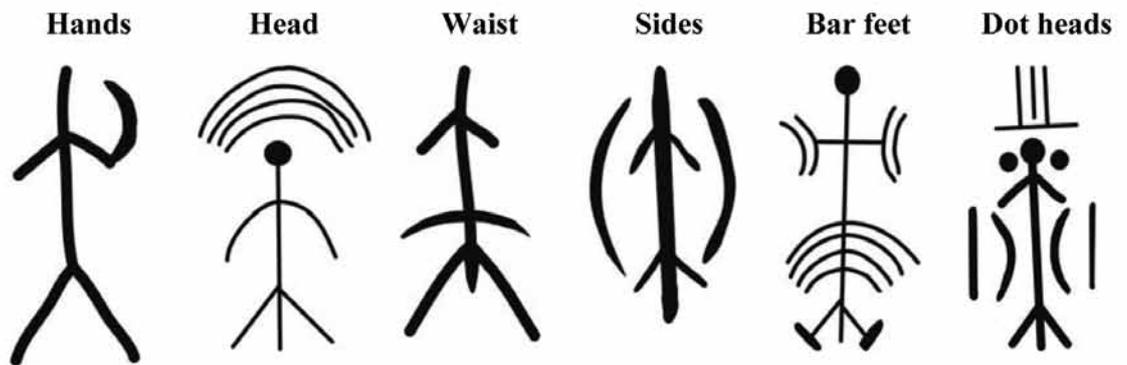


fig. 4

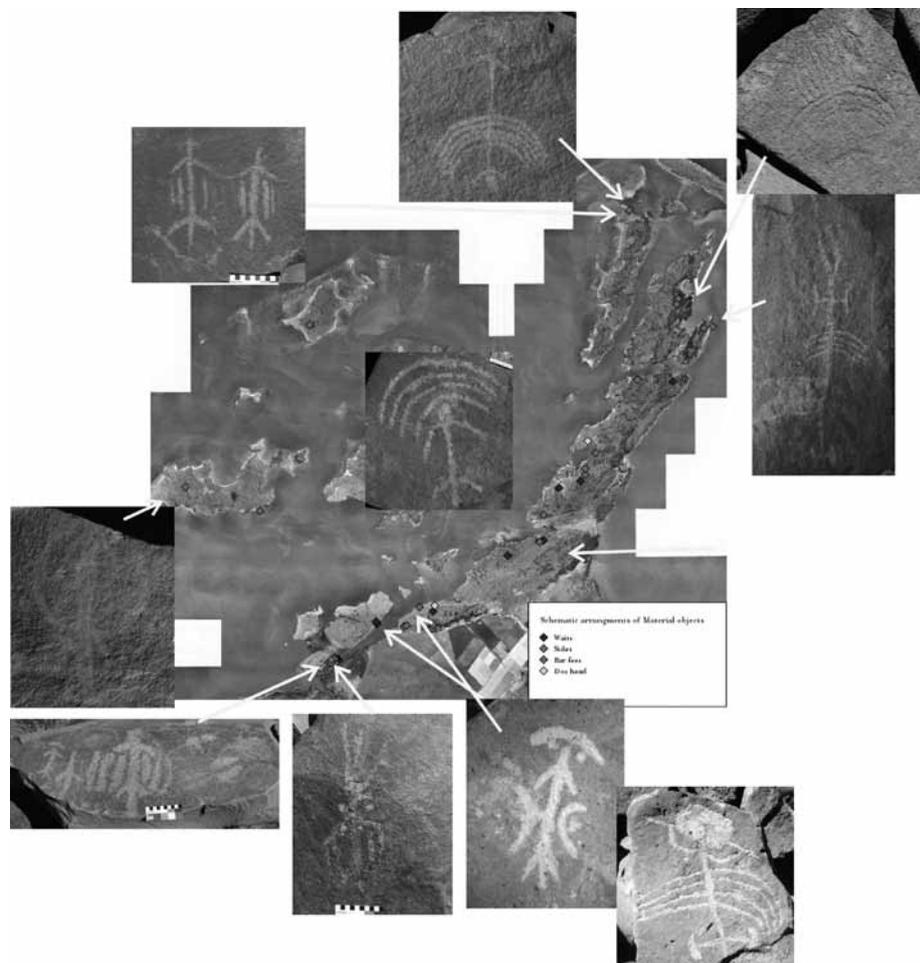


fig. 5



fig. 6

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