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Archaeology and Petroglyphs of Dampier (Western Australia) an Archaeological Investigation of Skew Valley and Gum Tree Valley

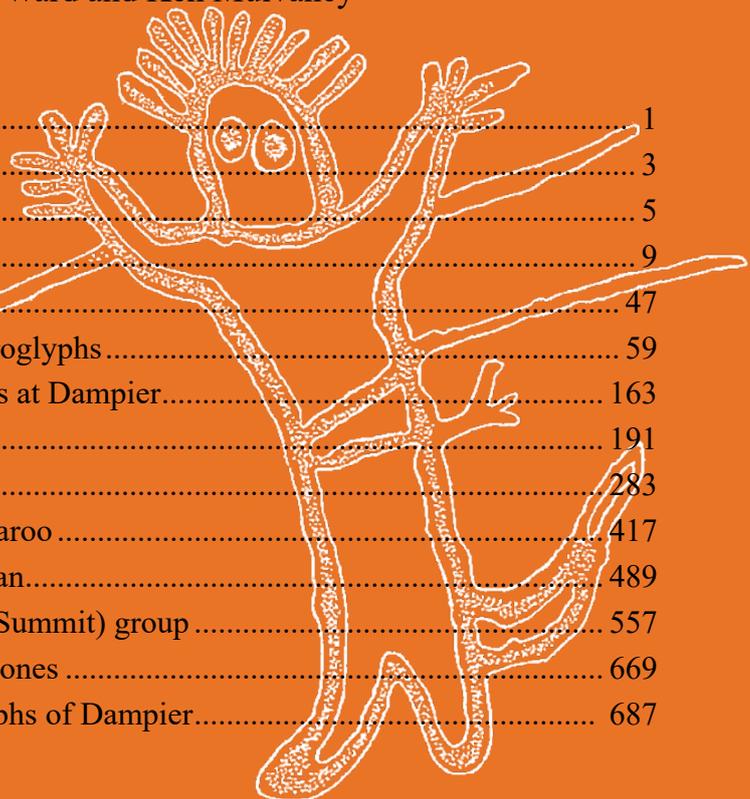
by

Michel Lorblanchet

edited by

Graeme K. Ward and Ken Mulvaney

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Author

Michel Lorblanchet joined the *Centre national de la recherche scientifique* (CNRS, France) in 1969 to study the Palaeolithic rock art of France. After graduating in 1972 from Université Sorbonne (Paris) with a doctorate in Prehistory, he was employed from 1974 to 1977 at the Australian Institute of Aboriginal Studies to conduct research into indigenous Australian rock art. From his base in Canberra, he participated in projects in Far North Queensland and in western Victoria. Between 1975 and 1976, he conducted the fieldwork at Dampier, Western Australia, on which this monograph is based, and made two further fieldtrips there in 1983 and 1984. He returned to France in 1977 to the *Centre de Préhistoire du Pech Merle* (Cabrerets). Lorblanchet was appointed *Directeur de recherches au CNRS* in 1995; he retired in 1999 and lives near Saint Sozy in the Lot Valley where he continues to research and publish about rock art. He is the author of many papers and several books on European Palaeolithic art (some are listed in the editors' introduction) as well as reports and this monograph on his Australian researches.

Volume Editors

Graeme K. Ward has conducted archaeological and ethno-archaeological fieldwork in the island Pacific and Australia. He gained his doctorate from The Australian National University and was employed at the Australian Institute of Aboriginal Studies where he was involved with administration of research programs including the national Rock Art Protection Program. Subsequently, as Research Fellow and Senior Research Fellow at the Australian Institute of Aboriginal and Torres Strait Islanders Studies he undertook research into Indigenous cultural landscapes in northern Australia with traditional knowledge-holders of cultural heritage places. He is the author of various research papers, of three monographs and editor of many collections of archaeological papers; he served as the editor of the Institute's journal, *Australian Aboriginal Studies*, for several years. Currently he is a visitor at the Department of Archaeology and Natural History, School of Culture, History and Language, College of Asia and the Pacific, of The Australian National University.

Ken Mulvaney has lived and worked for the past ten years on the Burrup Peninsula, where he is the Principal Advisor Cultural Heritage for Rio Tinto Iron Ore. Prior to this, Ken spent many years in the Northern Territory working with Aboriginal traditional owners documenting their cultural heritage places and land affiliations. He first came to the Burrup in 1980 when employed by the Western Australian Museum as member of a team documenting archaeological sites in areas destined for construction of a petrochemical processing plant. His doctorate from the University of New England is the first such study on the prehistory of the Dampier Archipelago. He is author of many articles on rock art and Aboriginal culture, and is currently affiliated with the Centre for Rock Art Research and Management, University of Western Australia.

Chapter 9
Conclusions

Petroglyphs of Dampier—General Conclusions

MICHEL LORBLANCHET

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In 1974, fresh from the Palaeolithic painted caves of my country, I was first sent to Dampier by the Australian Institute of Aboriginal Studies where I was employed as a research consultant. It is probably in part due to the extent of my ignorance that I allowed myself to take on this heavy responsibility. The institute expected from me nothing less than a total archaeological appraisal of the importance of the Dampier rock art, its potential for further research and future conservation measures, together with specific proposals on methods of study that might be undertaken! Without my knowing it, I had been sent directly to one of the more prestigious sites of world rock art!

The person who alerted the Institute the necessity of such a mission was Mr Enzo Virili, an engineer with the Dampier Salt Company. He had sent reports to the Institute, and had participated in a conference organized in 1974 by the Institute's Principal, Dr Peter Ucko (Virili, 1974).

With the benefit of hindsight, what I have retained from my stay in Dampier and in Australia is firstly the tremendous scientific and human education that I received during my work on this continent and the friendly collaboration that I established with all the institutions and personalities I met, as well as with the members of my field team, in which I had for a time an Aboriginal assistant, 'Ben'.¹ I have already reported these happy collaborations in my introduction. Recently, this period of collaboration has reached an apotheosis since for more than four years I have worked in the preparation of this book with the constant help of Dr Graeme Ward (AIATSIS), leading to its completion through translation of my text into English and his long and patient editorial work and scientific help, along with the good advice of Dr Ken Mulvaney (author of a recent thesis on Dampier rock art), and the funding for the publication provided by Rio Tinto. It is under auspicious circumstances that this book has been born.

In responding to what was asked of me in 1974, I proposed a method to study the Skew Valley and Gum Tree Valley petroglyphs (Lorblanchet, 1977) and supported my proposal by an example; that is, by undertaking myself the first work that I envisaged: an archaeological study to reveal the exceptional wealth of the area's cultural heritage. This would confirm that the rock art of the Dampier Archipelago was one of the most important areas—to world heritage status in terms of its prehistoric art—since it has hundreds of thousands of depictions associated with a variety of habitats and artefacts. This assemblage highlights the close links established between human communities and their natural environments over more than twenty millennia. There is an inexhaustible field of study that will continue to reveal the multiple ways in which human groups have adapted to environmental changes by altering their ways of life and cultures.

The study method that I proposed initially reflected the vastness of the object of study; it was incommensurate with the European Palaeolithic cave paintings that I had studied previously. It needed to be based on a method permitting a prompt assessment of the scope for future research. I considered, in fact, this work as a large-scale test, an introductory study that eventually would develop over an extended time within a collective, multi-disciplinary and international framework.

My method was based on the following main points that I reiterate briefly here:

- partial excavation of the shell midden in Skew Valley. This was intended to establish quickly an initial basic chronology: to ascertain the stratigraphy and to uncover carved rocks buried under the shells that then could be radiocarbon dated;

- delineation of six sampling areas—test zones—of limited dimensions, located in different ecological and topographical environments, comprising real sites (SKV, GTVS, GTVE, GTVK, GTVW, GTVT). In each of these areas, a thorough and systematic study of all cultural evidence (petroglyphs and other associated cultural remains including artefacts and shells) would be undertaken; and
- extensive use of mapping of all the parameters studied (petroglyph subjects, carving techniques, orientation, patination states, and relationships among petroglyphs, artefacts and shell remains).

My spatial survey highlighted the fundamental *diversity* of sites from every period: habitation sites, where a whole population is present, and specialist sites (for rituals such as an increase ceremony or a burial) used by only a part of the population. I showed also that, within the same site, various areas exist representing different functions (for example, within petroglyph groups, there were areas with numerous geometric motifs at the top of the slopes, and areas with numerous human motifs near the thalweg). The visibility of the carvings (on the top of blocks or their orientation towards the thalweg and thus the most frequented zones) offered another aspect of the specialization of each petroglyph sample area.

This diversity in the thematic composition of the sample zones linked to the diversity of the functions of places and sites must be considered in every comparative study of sites.

Over a year, working in the field with a small team, followed by more than seven years of laboratory studies and preparation for publication, this method has produced the results that are presented today in this monograph. But I ask the reader to note that this publication simply covers my research to 1984; I have not attempted to update my results or to compare them with current research in the region (in this regard, the Introduction by Drs Ward and Mulvaney will be useful).

My methodology reflects my personal reaction to the situation that presented itself to me in particular circumstances. Whatever the limitations of my approach, my research has demonstrated clearly the Pleistocene age of many Dampier petroglyphs that are earlier than the appearance of the shell middens. This was a revelation in 1980. I have shown the diversity of the types of sites that we see today. While it is still impossible to date petroglyphs with certainty, from my observations in Skew Valley and Gum Tree Valley we now know of the persistence through the ages of certain motifs (depictions of stick figures, turtles and animal tracks, for example), and we know of many instances of re-marking of carvings, and of erasures and layering of images over time that could assist as well as complicate attempts to date a corpus of petroglyphs (Lorblanchet, 1980, 1983, 1985, 1992, 1996).

Clearly, considering these first results, my method is open to improvement. It could be developed, for example by excavating further shell-middens, including the large midden that occupies the central ‘amphitheatre’ of the Eagle Group (GTVE). It would be productive to excavate a large proportion of this mound in an attempt to understand better the way of life of the shell collectors, to clarify the time-line, to try to find any link between the period of gastropod collection to that of the bivalve gathering (there is a significant interval between the two—as I discovered at Skew Valley: Lorblanchet & Jones, 1979),² and to understand its environmental significance/cause (we may hypothesize rising sea-levels). Another goal of any new study would be to

find further buried petroglyphs, and to subject the associated shell remains to radiocarbon dating. It would be especially useful to excavate the ground on which the midden was built to try to find the oldest remnants of the predecessors of the shellfish gatherers who lived at and visited these places and who made the first rock carvings.

The habitable and inhabited parts of Skew and Gum Tree Valleys are easy to spot because they are always near water resources, including seasonal pools, which have formed near the same locations over millennia. At GTVE, the natural amphitheatre formed immediately upstream by the enlargement by several pools of tolerable drinking water would have made this an especially favoured habitat. It seems likely that excavation would reveal Pleistocene habitation under the Holocene midden.

Excavation of middens near the shore and beyond the area containing the petroglyphs would be desirable to provide the bases of comparison with the middens surrounded by carvings. It would be useful to obtain more radiocarbon age estimates from the remains of large shells found among the petroglyphs; dating *Melo amphora* and *Syrinx aruanus*—which served as water-containers—could provide new evidence to confirm Pleistocene occupation.

We would try to use the Uranium series dating method (newly applied to ancient rock art by Pike *et al.* 2012) on concretions formed on carvings (for example those at GTVT-Village). Expanding research to sites located further inland would allow inter-regional comparisons to be made.

My analytical research of the 1970s and 1980s should be complemented by synthetic and comparative approaches extending over the vast territories of Australian art, informed by all the ethnographic data that I did not have time to acquire during my too-short stay in Australia. These are, of course, many new approaches to research that I could not have employed, and which have been developed by Australian colleagues devoted to the study of these immense fields of petroglyphs.

Some elements of my methodology, however, are likely to have a general value in the archaeological study of rock art. At Dampier, as elsewhere, research should include two essential and complementary approaches: it should always associate the analytical approach of *recording* (and deciphering) the petroglyphs or painted panels with the broader and more synthetic view offered by the process of *mapping* distributions of the various parameters under study (Lorblanchet, 2002, 2010).

Recordings of carved walls were most often effected by tracing on top of a photograph made in front of the original motif, and, more rarely, by direct life-sized tracing on resistant, non-friable, blocks where there were complex motif superimpositions (for example of the large depiction of a kangaroo GTVE-3). Tracing onto photographs is an appropriate method where there is a multitude of motifs to record. It is too time consuming to make direct tracings of every petroglyph; there are instances when friable decorated surfaces could be damaged; and also, the reflection of the sun on the tracing paper plus the wind from the sea transforming the tracing paper into a sail make this method of tracing particularly competitive (sailors are the best at this sport!).

Our recording aimed to reflect accurately the current state of the carved surfaces; their current condition is the result of a series of both human and natural interventions over millennia. Only patient deciphering of what the surface has recorded over time, to distinguish not only the different additions, overlays, renovations and use-marks, but also various erosion scars, flaking, deletions and different aging patterns. This process of recording decorated surfaces

is fruitful and revealing; any study of rock art that is not based on authentic records appears superficial, incomplete and questionable, open to all the risks of the uncontrolled interpretation that it allows.

Throughout my research on European Palaeolithic art, and in Australia and India, I have always found *urgent need for proper recording; that is, by tracing* (Lorblanchet, 1976, 1988, 1989, 2002, 2010).

At Gum Tree Valley, I noticed with delight the beautiful hillsides studded with a kaleidoscope of images that appear and disappear with the path of the sun. Motionless at the centre of the midden we observed throughout the day *the cinematic presentation of the site by the sun!* Carvings lit for just the previous half hour disappeared the next moment into shadow; the next instant ... new motifs 'lit up' in the morning sun; others were illuminated in the rays of the setting sun. What meaning did these moving images have for the shell collectors, for the creators of the petroglyphs? Were episodes of the Dreaming recounted here? I thought of the 'Showmen' of India who, at night, set up their long banners covered with paintings, and happily sing of the myths while successively illuminating with their oil lamps various images on their banners. I have considered similar things in decorated Palaeolithic caves. Light seems to have played a key role throughout! Light is of paramount importance to the prehistorian in his reading of decorated walls, and this is why I have recorded consistently the precise time of maximum visibility of each carving on my field notes.

I have noticed, for example, at the Top of Gum Tree Valley (GTVT), if I visited the site between 1000 and 1600 hours (that is, at a time outside the timing of the usual long walks to get to this place and return), the visitor—or archaeologist—hurrying, can distinguish and photograph only about 40 motifs: that is, those that he can glimpse in the perpendicular rays of a blazing sun. But my recordings, made at different times of the day, and even at night with artificial lighting, disclosed 418 designs in this same place! Only strict deciphering of rock surfaces involved in the survey can escape the constraints of natural lighting that restrict prehistorians to focussing on the clearest motifs; that is, the most recent ones. The deficit of a survey conducted in that manner is that it is an incomplete and biased view of the decorated surfaces.

My research in Australia, in the Grampians (Coutts and Lorblanchet, 1982), at Cape York sites (on Clack Island with an AIAS team, and the Early Man site with Andrée Rosenfeld's team), and especially in Dampier, allowed me to exercise my passion for fieldwork, decryption of decorated walls and rock art motifs while respecting the object of study.

The discovery of superimposed and re-marked figures on the Dampier rocks, their re-use by successive generations who adapted them to the rituals of the time, taught me also how to read the painted walls of European Palaeolithic caves; but the reverse is also true: my practice of reading graphic records exercised in Palaeolithic cave paintings, facilitated my study of Australian sites (Lorblanchet, 1976, 1983, 1988).

This successful exchange—a unique opportunity that I was given by Peter Ucko of the Australian Institute of Aboriginal Studies and later by the French CNRS³—taught me a living and dynamic perception of rock art that allowed me to escape the grip of a certain structuralism, a European and French vision, too static and intellectualist for prehistoric art.

My study of the Dampier petroglyphs delivered me essential information on the role of rock art in a living society. These data were often verified in the French Palaeolithic caves: the Dampier motifs taught me that the horses depicted at Pech Merle in manganese were later

reworked, reactivated using juniper charcoal (dated to more than 24 600 radiocarbon years ago), showing that the earlier design made in manganese dated to well before this period (Lorblanchet, 2010).

The different types of re-marking that I recorded at Dampier, I later discovered in the Palaeolithic paintings of my country where they had gone unnoticed; and I could reveal these using detailed recordings, physicochemical or palaeobotanical analyses of pigments and the use of radiocarbon dating.

American archaeologists following L. R. Binford (1981) described the 'Pompeii syndrome' (or 'Pompeii Premise') as a European trend to simplify the past to consider that archaeological materials characterize a moment in time, as if the sites were sealed.⁴ My researches in Australia, as in France, support Binford's argument; they encourage us to think of the European Palaeolithic shrines as we might the sacred sites of the Dampier carvings. These, as all the great shrines of humanity, experienced a long and complex history, probably involving some changes in functions and rites, but in any case, marked by the longevity of the significance of the place and its imagery (Lorblanchet, 1976, 1996, 2002, 2010).

Research often gains in depth when it expands by opening new horizons. By involving overseas researchers to work on its extensive deposits—they are of unequalled richness because they combine both archaeological and ethnographic aspects—Australia aims to be the world leader in the study of rock art. The Dampier petroglyphs, for example, could be the subject of broad international and interdisciplinary projects. This possibility is part of the heritage of Australia.

Palmer (1975: 158–159), an anthropologist who collected much information from the Aborigines of the Dampier area on the meanings of the petroglyphs, wrote of them:

Their overriding importance lay in their origin and representation of the Dream Time. ... Like the rock they appeared to the Aborigines indestructible and presented the visual record of the foundation of Aboriginal society, enlivened by the laws and mysteries of the Dream Time.

To non-Indigenous Australians, these carved rocks also seem 'indestructible' and sacred. Not only do they provide an illustrated catalogue of events of the Dreaming, and contribute to the foundation of Aboriginal society, but they are also part of the foundations of human society at large. They are a spark of humanity inscribed in stone that we all should respect: for all of us these images are sacred!

They express something unique among men in their relation to the world, an original human response to a certain environment at a particular time, a response that contributes to the general definition of humankind. The common heritage of humanity, they affect us all; in destroying them we would destroy a part of ourselves because we will destroy in us our self-respect.

As a French prehistorian, I have been a doubly exasperated witness of the degradation of the majestic works of Lascaux, another place of humanity's heritage. Seventeen millennia ago when some senior persons were carving designs on the stelae of Gum Tree Valley, large bulls were being painted onto the walls of Lascaux. Time had bequeathed these paintings to us undamaged, but in half a century our modern civilization now threatens to destroy them! Our best biologists have been called in to try to remedy the persistent pollution threatening these paintings (Delluc & Delluc, 2008). The example that Lascaux Cave gives to the entire world is that, in our modern societies, our heritage is extremely vulnerable.

Worldwide economic development conflicts with the preservation of heritage, be it cultural or natural. At Dampier,

economic growth itself, by the spontaneous action of employees, such as engineer Enzo Virili, has contributed to the awareness of the existence of an important heritage to be preserved.

It was almost the same in the C \hat{o} a valley, a tributary of the Douro in Portugal, where the construction of a dam that would flood the region in 1994 revealed the existence of numerous unrecorded petroglyphs along a 17 km length of the valley. Was the loss of thousands of unpublished petroglyphs, many of which were attributed to the Palaeolithic and were contemporaneous with Franco-Spanish decorated caves, acceptable? A vigorous battle for the defence of the rock carvings began; an international commission, of which I had the honour of being a member, confirmed the Palaeolithic dating of most of the petroglyphs, as Portuguese pre-historians had forecast. Participation of local people in the defence of the petroglyphs was massive and included hunger strikes! The dam construction was stopped, the 2000 workers employed there were found other jobs and the dam replaced by other technical means of using regional watercourses. Today, many new discoveries, excavations and numerous radiocarbon dates have established that the rock art has developed uninterrupted for 28 000 years and today it represents an aspect of European Palaeolithic art that had hitherto been neglected. A modern museum has been opened, visitors flock to discover the art of C \hat{o} a in a picturesque and informative archaeological park (e.g., Baptista, 2009).

Such an example must be reflected upon ... the situation of the C \hat{o} a petroglyphs is certainly different from that of Dampier; the latter are much more numerous. An isolated dam is nothing in comparison with the enormity of the current expansion of industrial facilities on the Burrup Peninsula. The solutions to be identified would not be the same but in both cases the fields of petroglyphs are an invaluable and irreplaceable heritage whose integrity our modern societies have a duty to maintain. There can be no economic development without respect for local heritage that is also a shared wealth of humanity.

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Endnotes

- 1 Not his real name, but he wanted to be called 'Ben'.
- 2 Chapter 2, Part II: The first excavations at Dampier (Western Australia), and their place in Australian archaeology—Editors.
- 3 Centre national de la recherche scientifique—France's National Centre for Scientific Research—Editors.
- 4 Cf. Schiffer 1985: 18 "One of [Binford's] main arguments is that my views on formation processes are predicated on the assumption, labelled the "Pompeii premise", that inferences are possible only when one's site has yielded Pompeii-like assemblages of de facto refuse. (De facto refuse ... consists of artifacts from the systemic inventory, often still usable, that are left behind on occupation surfaces when people abandon activity areas, structures, and settlements.)"—Editors.