Report on the Inspection of the de Freycinet Land Camp, Shark Bay, 2005

Maritime Heritage Site Inspection Report

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Abstract

French explorers are synonymous with the history of Western Australia; many explorers mapped the coast and made detailed studies of the flora, fauna and celestial bodies on their voyage around the coast. One notable explorer was Louis de Freycinet whose voyage on the vessel *L'Uranie* became more famous from his wife's presence, and her letters, which chronicled their voyage around the world and their stay in Shark Bay.

The purpose of the survey expedition was to; research, identify and survey the *Uranie* campsite using non-disturbance methodology; increase the knowledge of the de Freycinet's and their camp; protect the de Freycinet campsite on the Peron Peninsula by informed recommendations on the future of the site; and, determine whether more field operations should be conducted. The survey was conducted using a Leica total station and photography to map the artefacts found earlier and recovered by the finders; map the main features of the site; and, to then determine an area for protection. These aims were achieved. The site was also determined to be one of the *Uranie* landing sites and as such has been recommended for protection under the State *Maritime Archaeology Act 1973*. Further recommendations have been put forward including the possibility of test excavations at certain locations and the investigation of associated archaeological sites. Public awareness and access issues have also been addressed.

Acknowledgements

This fieldwork would not have been possible without the help of the Shire of Shark Bay Staff: in particular the Shire President, Mr Les Moss, and Shire CEO, Mark Hook. Other thanks go to Conservation and Land Management (CALM), coordinated by field staff Alan Kendrick and Owen Massenbauer; Arthur Pepper (of Shark Bay); Sim Prall (Surveyor); and, Samantha Bolton (archaeologist) from the University of Western Australia (UWA). Also, thanks go to Fugro Airborne Surveys for the loan of a DGPS unit for the duration of the fieldwork.

Introduction

The purpose of this site inspection was to:

- a) Research, identify and survey the Uranie campsite using non-disturbance methodology;
- b) Increase the knowledge of the de Freycinet's and their camp;
- c) Protect the de Freycinet campsite on the Peron Peninsula by informed recommendations on the future of the *Uranie* Campsite; and
- d) Determine whether more field operations should be conducted at the site.

Background

Historical background

The French corvette *Uranie* departed on its voyage of discovery from France on 17 September 1817 with a crew of 125 men under the command of Louis de Freycinet. The main task of the expedition was to increase the world's knowledge of physical geography, undertake astrological observations at chosen sites around the world and carry out research on the shape of the earth. It was also intended to undertake studies of the various human societies encountered along the way and gather specimens and materials for their museum collections in France. Jacques Arago, an artist, was included amongst the ship's crew in order to record specific events, sightings and observations. Louis de Freycinet was accompanied on the voyage by his wife, Rose, who, refusing to face a separation from her husband for several years, instead stowed away on board to remain hidden until far out to sea. Rose de Freycinet maintained what was, in effect, a journal of her voyage in which she recorded her various observations and details of the expedition (de Freycinet, 1824–44).

The *Uranie* arrived at Shark Bay on 12 September 1818 and spent the next 15 days anchored in shallow waters off the coast. De Freycinet sent a boat to Dirk Hartog Island to remove the de Vlamingh plate (successfully accomplished) and established a camp and 'observatory' on the nearby shore. Rose de Freycinet records the meeting with Aboriginal people and members of the *Uranie* crew (Bassett, 1962: 87), and gives a general description of the land and her activities during this time (Bassett, 1962: 82–95). When all the observations had been completed the *Uranie* departed on 26 September for Timor. However, they became stranded on a sand-bank in shallow waters not far off the coast (Bassett, 1962: 95). Eventually, they found a channel and set sail for Timor the following day. The corvette then sailed to Timor, the Marianne Island, Sandwich Islands and on to Port Jackson before becoming shipwrecked in French Bay off the Falkland Islands in February 1820.

Locating the site in modern times

The finding of a site thought to be the campsite of the *Uranie* was reported to the Department of Maritime Archaeology, Western Australian Maritime Museum by Mr Les Moss, President of the Shire of Shark Bay, and Mr Hugh Edwards (author) on 26 September 2002 (see WAMM File MA-356/00), just prior to the London auction of The Freycinet Collection (see Christies, 2002) At this time, the finders reported that the site was devoid of visible evidence (artefactual) of the brief European occupation. Their identification was assisted by translated information supplied by South Australian maritime historian Robert T. Sexton (see Letter dated 22 September 2002 and Sexton, 2002 in WAMM File MA-356/00/7) and visual comparison of the landforms with contemporary sketches.

In March 2005, Mr Moss reported that he had returned to the site and found three lead washers, five musket balls and one button through the use of metal detection. The discovery was reported in the newspapers (see Zekulich & Amalfi, 2005). Mr Moss believed these finds were contemporary with the *Uranie* campsite. Metal detectors for use on land were originally employed at the site but these could not cope with the salt water over the inter-tidal zone. An alternative metal detector that could be calibrated for use in saline environments was then used. This located musket balls in between the rocks. The location of these finds provides the possibility that they are contemporary with the French camp. Mr Les Moss had consulted references to the site and became convinced that this was the site by the latitude delineated by Mr Bob Sexton, a maritime historian, (being the same latitude recorded by the *Uranie*). He was also swayed by the pictorial evidence of Alphonse Pellion's (official and unofficial depictions of the contemporary *Uranie* camp) and Jacques Arago's sketch of the meeting between Aboriginal men and members of the crew at the site. The recovered artefacts were later handed into the Museum.

Though a team was unable to attend to the finding in 2002 due to funding constraints, in 2005 these were made available and a team was sent to examine and survey the site.

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Figure 2. Jacques Arago's sketch of the meeting with Aborigines at Cape Peron. The stack of muskets at the bottom left appears in the next two images. These are outside Rose de Freycinet's tent (Arago, 1823).



Figure 3. J. Alphonse Pellion's painting *Baie des Chiens-Marins, observatoire de L'Uranie* showing Rose outside her tent (Christies, 2002: 59).



Figure 4. A later re-drawn version of the subject (*Baie des Chiens-Marins, observatoire de L'Uranie*) by Pellion, removes Rose de Freycinet from the scene. This image is in the Rex Nan Kivell Collection, National Library of Australia (Christies, 2002: 60, fig. 20).

Technical data

<u>Site name</u>	Uranie Campsite, Peron Peninsula, Shark Bay, WA
<u>File name/No</u> .	Shark Bay—MA 210/80 Dampier/de Freycinet—MA 356/00
Date of inspection	23–27 May, 2005
Personnel	Samantha Bolton, Matthew Gainsford, Mack McCarthy, Richenda Prall, Simeon Prall
Approximate location	c.2 kilometres north of Cape Lesueur, Peron Peninsula, Shark Bay
Charts	 British Admiralty 1056 AUS 331, 749 National Topographic Map Series 1: 100 000 1546 Denham Edition 1 1974 <i>Carte, de la Baie des Chiens-Marins (à la Nouvelle–Hollande)</i> <i>dressée d'après les travaux faits dans le voyage de</i> l'Uranie, <i>en</i> <i>1818, et dans celui de</i> Baudin <i>aux Terres-australes en 1803</i>.
Plans	Three Dimensional Survey (Total Station)
GPS	S1R 25°41.8680' South—113°25.0321' East (WGS 84) S2R 25°41.6953' South—113°24.9556' East (WGS 84) S3 25°41.9858' South—113°25.0211 East (WGS 84)
Sailing directions	From Denham by boat follow the coast around Lagoon Point and then past Middle Bluff to Cape Lesueur. Once past the Cape the site is a few minutes further up the coast in the next bay. It can be identified by the red cliffs and a hook-shaped point at the southern end of the bay.
Site photographs	
Colour	Site images located on Maritime Archaeology Vol. 2 Server (File: DeFreycinet)
Site conditions on inspection Swell Visibility Current Sea-bed coverage	Good Nil 5–10 metres Minimal Rock, sand, some organic detritus
Chemical measurements	Not applicable

Site condition and integrity

The site is in a good state of preservation with minimal interference aside from the modern intrusion using metal detectors to locate artefacts at the site. There is no evidence of contemporary European material culture *in situ*. There is evidence of Aboriginal occupation both to the north and south of (but not within the confines of) the site. Furthermore, no evidence of early pearling activity was found within the delineated *Uranie* campsite. The site geographically comprises of some sand flats on the shoreline *c*. five metres in width, banked by low-lying scrub and sand dunes. Slopes were interspersed with water-cut gullies and ridges, with a clear delineation of background vertical cliffs at the rear of the site, reaching heights of approximately 36 metres above sea level. The site ends in a relatively flat landscape eastwards from the cliff tops. The site extremities were clearly defined by a rocky oyster-laden outcrop to the north and the natural hooked point that forms the end of the bay to the south.

Chart excerpts



Figure 5. Chart excerpt, British Admiralty 1056.



Figure 6. Chart excerpt, showing locations of the observatory, *L'Uranie* anchorage and campsite. *Carte, de la Baie des Chiens-Marins (à la Nouvelle–Hollande) dressée d'après les travaux faits dans le voyage de l'Uranie, en 1818, et dans celui de Baudin aux Terres-australes en 1803.*



Figure 7. Chart excerpt from AUS 749 showing the Uranie campsite.



Figure 8. Aerial image of the Shark Bay area. (Shark Bay mosaic. DLI JOB#: 4229/04–05. Courtesy of the Department of Land Information [DLI]).



Figure 9. National Topographic Map Series, 1: 100 000 1546 Denham Edition 1 1974. (Site location: 49JGM426569 — see S1R in Appendix A)

Description of site

Survey

An initial search and survey of the area was undertaken to ascertain visual links and perimeters of the site before an in depth survey of the area commenced. The DGPS system was used to coordinate the three main ground survey control points. Coordinates in UTM (eastings and northings) of ground stations were adjusted to best fit accurate ground distance and angle observations made with a Leica Total Station. The height of the central GPS station was adopted as the ground survey height datum. The horizontal position of the southern GPS station was adopted and the Azimuth of the longest GPS baseline adopted. The Total Station was used to map the locations of geographical features and artefact locations. Liscad software was used to reduce the data and produce a contour digital terrain model of the site.

Geographical description

The site lies in a bay north of Cape Lesueur on the Peron Peninsula, Shark Bay. The defined area of the site is a conglomerate of low-lying sand patches that have a gentle slope to the east, steadily increasing in gradient, terminating in areas of cliffs and flat-topped ridges. Radiating downwards from the highest point to the coast are a number of ridges and gullies that form one of the more dominant features at the site. To the east of the higher points, (e.g., Station One [S1R]) the terrain becomes flatter and more regular but with knolls and undulations appearing throughout. For the purposes of the survey the site was defined by natural geographical features to ascertain the overall extent of the possible camp area, and the material evidence that could have been discarded and lost through the duration of the Uranie stay. It was determined that the rocky outcrop at the northern end of the beach formed the natural northern delineation point for the campsite. This area is possibly the natural oyster bed that Rose de Freycinet refers to in her journal (Survey Point 46, 742342.362 East, 7155843.433 North) (Rivière, 2003: 51). The southern point for the camp was defined by a natural point of the bay: a natural hook at the southernmost extremity. Coastline that could potentially be used for a campsite terminates at this point. Therefore, it was deemed the best position to enclose the area (Survey Point 69, 742319.676 East, 7155270.832 North). The eastern points that were used to delineate the perimeter of the site were the natural cliffs that surround the whole bay and other high points around the site where the cliffs ended and the flat land began further to the east of the site. This provided an extent of c. 1 kilometre in length and 100 metres in width.

Geological description

The site is comprised of a number of features and soil types. There is a combination of both marine and terrestrial environments that need to be addressed when investigating this site in particular, because the site—although it is terrestrial—has elements that reside in the marine environment.

Terrestrial elements

The terrestrial environment is a combination of low-lying coastal land that steadily increases in gradient to cliffs and steep hillocks. The gradient is dominated by gullies and ridges. Soil types are medium to coarse-grained sediments close to the shore that are yellow/brown in colour predominantly. Toward the cliffs the sediment becomes a darker yellow/brown colour finer in grain size. Half way up the incline there is a marked difference in soil colour. The yellow/brown colour changes to dark iron red of the cliff dominated structures. Furthermore, at the top of the cliffs there are also wind-blown patches of light coloured sand mixed with the red soil. The soils at the site are all loose/semi packed medium to fine-grained sediments. These sediments are subject to a number of forces that 'drift' these up and down slopes, mix layers and deposit more soil. Recent inspection of the site revealed that these sediments in combination with the gullies and ridges provide a method of transport for sediments down the incline. This downwards movement increases the amount of sediments available for deposition on the lower parts of the site, and exposes sections of the site that would be further up the slope.

The site seems to be quite stable, although after heavy rains and high winds there would be more littoral drift, migration and deposition across the site.

Marine elements

The marine environment that artefacts may reside in is of high salinity. Because of the location of Shark Bay, wind movement and other environmental conditions the water is often of a higher salinity than in the Indian Ocean. Salts would potentially be more concentrated in artefacts from this area. Sediment at the site is highly mobile and similar to those deposited on the shoreline and subject to littoral drift. This is most evident at the southern end of the bay where the hook shape has been formed from littoral drift of sediment. To the north of the point the water is shallower with more sediment and to the south is slightly deeper and the rocks are more exposed. If artefacts were deposited at the site, it could be possible that they may have migrated across the site, or fallen



Figure 10. Panoramic of the *Uranie* campsite (M. Gainsford).

between cracks in the rocks if they were heavy enough. Mr Moss proved this by locating lead musket balls in the cracks of some rocks adjacent to the site (Schiffer, 1983; Schiffer, 1987). These rocks are in themselves significant, appearing prominently in the contemporary illustrations (see Figs 16 & 17), further assisting in the conclusion that this is the *Uranie* camp.

Defined archaeological sites

A) Cleared camp area

On arrival at the site Mr Moss pointed out that clear sand division areas, which were easily visible to the naked eye, were not a natural formation but were man-made and had been 'dug out'. These, he believed to be the area and the site of Rose de Freycinet's tent site. While accepting that this is a possibility, it was also evident that the clear sand divisions could be natural formations and that the crew made use of them as such. Nonetheless, it was evident that the areas had been altered by occupation. In accepting that this was the camp, the survey showed that it ran from Survey Point 31, 742477.965E–7155546.885N to Survey Point 43, 742388.121E–7155789.188 N.

B) Rose de Freycinet's campsite

On evaluating the historical pictorial references (Christies, 2002; 59–60; see Fig. 4) and comparing them to the present day camp area, what appears to have been Rose de Freycinet's likely campsite was fixed at Survey Point 94, 742471.549E–7155533.830N. Mr Moss believed that the whole campsite would have been centred on this area. However, on examination of the geographical area, the team established that the crew from the *Uranie* would most likely have spread themselves out over an even wider area (the crew consisted of over 125 people). Also, not all came ashore (see Rivière, 2003: 51); and, many resided at another camp 'established on shore first, about a league [3 miles/4.8 km] away' (Bassett, 1962: 87) (before Rose's landing), most likely making use of the natural geographical bays and flat areas. Furthermore, there would be a demarcation between officers and general seamen, and even more of a demarcation when a woman, the priest and the artists were involved.

In her letters, Rose de Freycinet makes reference to eating oysters that had been found on nearby rocks (Rivière, 2003: 51). The Team located a large bed of oyster rocks at the northern end of the *Uranie* campsite that could well be those to which she refers (Survey Point 46, 742342.362E–7155843.433N).

C) The Observatory

From the historical information, it is evident that an observatory was established on land. The site of the observatory is indicated on the French chart produced from the 1818 survey of the Uranie (see Fig. 6). Its position was calculated by Doctor Quoy, Chief-Surgeon and Naturalist, as 'latitude, 25°41'21" south and longitude 110°59'13" east of Paris' (113°19'25" east of Greenwich, applying a factor of +2°20'12") (Quoy in de Freycinet, 1827: see Sexton trans., 2002: 11), and as latitude 25°43'21.0", longitude (based on the Paris meridian) 110°59'13.0" (in time 7 hours 23'56.9") in the 1826 account of the voyage (de Freycinet, 1826, Sexton trans., 2002: 9). However, no detailed description of it is provided in any of the published translations of Rose de Freycinet (Bassett, 1962; Rivière, 2003). There, reference is made to a party being sent ashore 'to set up our observatory' (on 14 September). On 15 September the observatory 'was set up in another place' after M. Duperrey set out in a boat to do a geographical survey. This suggests that Duperrey was not happy with the original location and moved the site of the observatory (Rivière, 2003: 50) This led to the conclusion that it did not necessarily lie within the confines of this camp. In conducting the research that assisted in Messrs Moss and Edwards locating the place, maritime historian Robert Sexton examined excerpts of a translation he made of de Freycinet's Voyage Autour du Monde: Navigation et Hydrographie (de Freycinet, 1826). On studying this translation it does appear that the observatory may have been set

up close to the camp, as is indicated also by the title of Pellion's painting shown in Figure 4. The translation, quoting from Doctor Quoy's journal, reads: 'When leaving the place where our observatory was located, one proceeded north-east for some time' (Sexton, 2002: 12, in MA-356/00.7). From the observatory they voyaged north-east to the basins of two salt lakes, which if is the case, then the observatory was most likely close to or part of the camp.

Plotting Doctor Quoy's position on modern charts places the observatory in the sea, but the latitude is relatively close to the position acquired during the recent survey. However, the longitude given by Doctor Quoy does not comply with the actual longitude of the site, which is 113°25'1" east. The actual position for the assumed observatory taken during the survey was latitude 25°41'52" south and longitude 113°25'1" east.

Because of the historical information and recent survey the team decided that the observatory had been established on the actual campsite; the most suitable area for it would have been the elevated point to the east of the 'cleared area' appearing in the *Uranie* camp itself (Survey Point S1R 25°41.86803731'S–113°25.03212196'E). The area was approximately 20 metres in elevation and 4 metres by 6 metres in area in the middle of the bay. It resides on a flattish rock base, covered with loosely packed red soil and shrubs, flanked on either side by vertical cliffs. No surface material or archaeological features were found. This theory, however, is based on the assumption that the observatory would have been established on a high prominent cliff point. There is no real argument though to prove that the observatory was not in fact set up on lower flat ground as celestial observations could probably have been just as clear. Further archival research needs to be undertaken on this subject before a concrete theory can be evaluated.

D) Archaeological finds

Mr Moss indicated the areas where he had found the three lead washers (PP 4549–4450), five musket balls (PP 4545–4548, PP 4551) and one button (PP 4561) by metal detecting. This allowed both the positions to be fixed and the team to re-examine them. The lead washers and button were found in the cleared out camp area while the lead washers had been 'dug out' from the sand by Mr Moss—the area of disturbance being approximately one foot square (c. 30 cm²). The lead musket balls were found between the rocks in the shallows at low tide.

Survey point 94 lead washer: 742471.549E–7155533.830N Survey point 109 copper button: 742475.708E–7155532.889N Survey points 110–111 musket balls (rocks in shallows): 742461.329E–7155548.323N; 742463.276E–7155531.728N

With the exception of one small fragment of modern glass (most likely washed downwards from the cliffs), no other European artefacts were found. No material evidence of early or late pearling was found and no earlier or secondary European material culture or contamination was found in this predisturbance examination. This, with the evidence presented above, leads to the conclusion that the artefacts are associated with the *Uranie* camp.





Figures 11 & 12. Button (PP 4561) from the Uranie campsite (M. Gainsford).



Figure 13. Musket ball (M. Gainsford).



Figure 14. Lead washer (M. Gainsford).



Figure 15. Lead washer, musket ball and button (M. Gainsford).

E) Aboriginal middens

Several Aboriginal middens were located to the north and south of the central Survey Control Point. Archaeologist Samantha Bolton from the University of Western Australia identified and delineated the sites. Ms Bolton stated that it was not possible to ascertain any exact date for the remains and, as a result, the Aboriginal sites could either pre-date or post-date the *Uranie* camp occupation date of 1818. Along the ridge line at the northern and southern ends of the site were a series of deflated shell middens. They were located in blow-outs of sand dunes. Six were located, but it is believed that there are more in the area along the coastline as the survey was limited to the area immediately surrounding the beach. The middens contained a low density of shell, approximately five pieces per square metre, mainly consisting of an unidentified bivalve species and oyster shell. These middens also contained several pieces of worked sandstone. Most pieces were not clearly modified by humans, however one hammer stone and several flakes were identified. There was also one shell midden along the beach approximately 10 metres from the water-line, towards the southern end of the site. This contained the same unidentified shell species and no stone artefacts. There was no evidence to suggest that these middens related to any European occupation of the area. A search of

the Aboriginal Sites Register was conducted, and no sites in the immediate vicinity have been reported.

The evidence of Aboriginal occupation at the site, cannot be directly linked to the meeting by officers and the artist Jacques Arago, from the *Uranie*, and the Aboriginal men at the campsite (Rivière, 2003: 51–52). No material evidence associated with this meeting, which included the exchange of weapons for tin, glass necklaces etc. was found.

F) Arago bottle site and associated sites from land expeditions

Publications of the *Uranie* voyage describe how a party (which included Arago) was sent to try and find two crew members who had failed to return from an expedition in search of Aboriginals (Rivière, 2003: 52; Bassett, 1962: 93). Mr Moss reported to the team that he believed he had identified the 'lakes' and 'lagoons' that he believed to be the ones Arago and his rescue party traversed. However, due to time limitations the Department of Maritime Archaeology team were unable to examine this area. It should be noted here that since the team's return to the Museum, Mr Moss conducted another search, and in locating another site, recovered some bottle sherds which he believes may relate to the bottle that Arago and his party hung on a bush for the lost crew members to find. The images and record he sent down as this report was being prepared are currently being examined.

G) Anchorage and grounding of the Corvette Uranie

L'Uranie would most likely have been anchored in the same position throughout the duration of the stay in Shark Bay. The *Uranie* is said to have anchored in Dampier Roads (*Rade de Dampier*) 'in five fathoms of water' (Rivière, 2003: 50). Again, the position is indicated on the French chart (see Fig. 6), some distance to the north-west of the observatory, and the longitude, average, given as 110°57'0.29" east of Paris (see Sexton, trans. 2002: 8). Shallow water predominates some distance offshore from the camp: 'its approaches were so shallow that...a boat sent ashore...grounded far from the beach'; therefore, as a result, *L'Uranie* would have been anchored some considerable distance from the site (Bassett, 1962: 86). Items may have been lost overboard as crew were transferred from the vessel to the boats, or material could have been discarded during repairs, or discarded after use (e.g. bones from animals or broken items). Although the site may be hard to find it could offer more information on the voyage and everyday ship life on board a French exploration vessel.

There is also mention of the *Uranie* grounding on its departure from Shark Bay. Again materials may have been jettisoned or lost overboard at this location. It does not seem likely, however, that the site could be found as there is only minimal reference to the occurrence in Rose de Freycinet's letters and in Louis de Freycinet's logs. If more evidence could be located it could prove an interesting place to search for material.



Figure 16. A view most likely showing part of the campsite (Christies, 2002: 61).



Figure 17. Nouvelle Hollande. Etude des dunes & falaises de la presqu'île Péron à la baie des Chiens-Marins (Christies, 2002: 62).



Figure 18. Contour digital terrain model of the designated site area (S. Prall).



Figure 19. Uranie camp on Peron Peninsula; British Admiralty 1056 (M. Gainsford).



Figure 20. Close-up of *Uranie* camp: points taken during survey. (1: 25 000 Topographic Vector Data, August and October 2002. Datum: GDA94. Courtesy of DLI.)



Figure 21. Aerial image of Cape Peron and De Freycinet camp. (1: 25 000 Topographic Vector Data, August and October 2002. Datum: GDA94. Courtesy of DLI.)

Site identification comments

On arrival at the site the team from the Department of Maritime Archaeology and University of Western Australia all agreed that the site compared favourably with the historical pictorial evidence (Arago, 1823; Rivière, 2003). The artefacts found, the lack of contamination from later occupations and the cleared areas, coinciding with the tents shown in contemporary images, proved conclusive. This is the camp of the *Uranie* people.

Assessment of site significance

(i) Historical

Western Australia has been a focal point of many explorers and traders passing by the coast with the introduction of Brouwer's route in 1616. The Dutch travelled regularly along this route. Explorers such as Dirk Hartog, William Dampier, Willem de Vlamingh, and Baudin with Hamelin and then Louis de Freycinet all came to explore the continent. However, the Frenchman Louis de Saint Aloüarn was the only explorer to consider the area suitable to annex, by leaving a bottle with a lead seal and coin, found at Turtle Bay, Dirk Hartog Island. This rich culture of explorers and traders navigating and exploring their way up the coast of Western Australia provides a rich source of cultural links and historical information relevant to residents of Western Australia.

(ii) Technological

Aside from the few artefacts gathered, there seems to be no significant material remaining on the surface that would provide technological information. The only area that may prove rich in respect of the technology is the 'Observatory', but further archival research needs to be commenced in order to examine in detail what celestial and magnetic studies were being undertaken.

(iii) Scientific

The site is significant because it provides archaeologists with an opportunity to obtain more information on exploration sites in Western Australia. Because of the interesting nature of the site, formation processes and material degradation could be explored in detail to add to the body of existing archaeological data.

(iv) Educational

The *Uranie* campsite is significant because of its potential as a focus for educational activities. At the instigation of Mr Moss, the naming of the bay, area and points of the camp will become a project that involves the community and school children, increasing awareness of the site while, at the same time, educating the public about the significance of similar sites. A sense of 'ownership' is also transferred to the local community.

(v) Cultural

Significance under this criterion is attributable because of the links to the 'French Connection'. Many explorers of French nationality have navigated the coast of Western Australia leaving depositions and other materials, and having named a significant number of geographical features of Western Australia. These links provide a wealth of knowledge and historical links that are significant to the modern populace. The *Uranie* has local, regional and international importance in the context of Australia's exploration heritage.

(vi) Archaeological

The *Uranie* campsite is archaeologically significant because of its potential to illustrate an aspect of French exploration and interaction with Aboriginal people during the early nineteenth century. Through historical and archaeological investigation more information may be gathered on the activities, landing places and structures erected by the explorers. The de Freycinet expedition to Shark Bay is the first place in 'New Holland' where a recorded cultural exchange took place between the indigenous people and European explorers. As such, both the archaeological and anthropological information gathered could be of immense importance to the history of Australia's heritage.

(vii) Rarity

This site has been untouched aside from the finders discovering it in 2002. This provides an opportunity to assess and investigate a landing site of the French explorer without the problems normally associated with uncontrolled visitation.

Management considerations

(i) Natural forces

The site is dominated by beach and low-lying hills that increase in gradient and cliffs, all of which are comprised of loose to medium packed soils of differing grain size and colour. These sediments under the right conditions would become highly mobile. The site is affected mainly by wind and rain in the form of erosion and deposition as a result. This was evident on the recent inspection to the site after an exceptionally heavy downfall had occurred in the weeks before, and it was noted that, at the site, gullies had transported this rainfall down the slopes. A significant amount of sediment had also been deposited in the gullies from the run off. The sea also plays a factor for it can modify beach structures and change the dynamic of material residing in the marine environment (Schiffer, 1983; Schiffer, 1987). The natural forces although they could be quite detrimental to the site, do not pose a significant risk in the short term, though the cliffs and hills will continue to degrade and sediment will move down the slopes, but this is rain dependant. The migration of sediments at the shoreline is more likely to cover material more, rather than expose it, because the objects located were already *c*. 30 centimetres beneath the surface.

(ii) Present and future human forces

There is no evidence of human interference subsequent to the French, although areas to the north and south of the campsite, and the adjacent seabed, were used extensively by pearlers during the nineteenth century. Modern interference is also minimal as the land is in a National Park, managed by the Department of Conservation and Land Management (CALM). Furthermore, the site is dominated by cliffs and hills and there are no access roads to the site. The likelihood of visitors exploring this area therefore is minimal. The only interference of the site may be in the form of disturbances should unauthorised entry result in camping in the area, and in visitors using metal detectors to locate artefacts.

(iii) Projected general site stability

The site should continue to remain in its basic current state if left undisturbed. Any interference with the site including archaeological examinations must be tempered with an eye towards minimal disturbance and remediation of the areas disturbed. Contemporary pictures of the site seem to illustrate the site as it appears today. Therefore, if left alone, minimal change should occur except during periods of high rainfall or storm activity.

Associated land sites

Pearling sites

A large number of early pearling camps were located to the south of the de Freycinet campsite. The Department of Maritime Archaeology with Samantha Bolton from UWA spent a day examining and carrying out preliminary studies of the sites. One large, early pearling settlement site was located to the south of the team's campsite at Cape Lesueur, the southernmost point being latitude 25°43.5017' south, longitude 113°24.9085' east. Another to the north was not examined. An examination of the artefacts in the southern camp points to a settlement of post-1870s. There was evidence of modern site disturbance with artefacts being scattered and generally interfered with. This area had been examined and recorded by Sally McGann in the late 1990s (McGann, 1999). On reading McGann's report it would appear that the site has become more exposed with significant disturbance since her analysis. A recommendation will be made for further work and protection of the site.



Figure 22. Pearling camp GPS outline points. (1: 25 000 Topographic Vector Data, August and October 2002. Datum: GDA94. Courtesy of DLI.)

Discussion

While there has been no material evidence that absolutely confirms the area as the de Freycinet/*Uranie* camp, a comparison of contemporary charts, latitude, archival research and preliminary examination and survey of the site indicates that a satisfactory identification has been made. Test excavations are warranted in order to test the deposit and to further cement this conclusion.

The search and survey did not establish with any degree of certainty where the Observatory was located. As discussed earlier in the report it was possibly set up on an elevated point east of the 'cleared area' of the *Uranie* campsite. However, it could equally have been located on lower flat ground. Further investigation of the area would be beneficial with the aim of ascertaining the exact location of the Observatory. In order for the investigation to be successful it will be essential to carry out further archival research first. The focus should be on obtaining copies of de Freycinet's logs and his *Voyage Autour du Monde*, studying both in depth. The *Uranie* has an enormous impact on Australia's exploration heritage in terms of local, regional and international significance and, as such, the de Freycinet campsite must be given adequate protection and grants for further research.

An issue that should be discussed here is that of the use of metal detectors in the area. The majority of artefacts located from the campsite have all been found by the use of metal detection devices. Unfortunately, the exact location of the artefacts was not marked/pegged and no GPS co-ordinates were taken. The survey team had to take arbitrary recordings of the artefacts' locations—precise locations not being isolated. This is an issue that should perhaps be raised with the Shire of Shark Bay. It is noted that, perhaps without the material artefacts found at the campsite through the use of metal detectors, the identification of the *Uranie* site would have been more difficult to ascertain, but the loss of accurate recording data is an issue that we should be aware of.

Recommendations

It is recommended that:

(i) The Uranie campsite and immediate area be nominated as a maritime archaeological site under the Maritime Archaeology Act 1973, and additional protection, by way of a permanent conservation order, be sought under the Heritage of Western Australia Act 1990. The area being:

> North-western - Easting 742220, Northing 7156080 North-eastern - Easting 742746, Northing 7156080 South-western - Easting 742220, Northing 7155020 South-eastern - Easting 742746, Northing 7155020

The area north (*c*. 5 km) of the nominated site above also be protected. The *Uranie* anchorage was some distance from the shore and further to the north of the above area and observatory (see Fig. 6). A camp was established somewhere in this vicinity before Rose de Freycinet landed as she provides reference to Louis calling upon 'some of the people who had been established on shore first, about a league [3 miles/4.8 km] away' to help them 'attempt a friendly welcome in force' with some Aboriginals that they had spotted on the sandhills (Bassett, 1962: 87).

This site in particular represents a significant period in Western Australia's history and therefore should be established as a historical zone free from the intervention of treasure hunters and collectors. As it currently resides, the area is located in a National Park managed by CALM. This combined with protection under the *Maritime Archaeology Act 1973* and the *Heritage of Western Australia Act 1990* would ensure an enhanced level of protection.

(ii) To distinguish it as a site of local, State and national importance, markers or signs should be posted both to inform the public and to warn them that the site is a maritime archaeological/historical site that is protected; detailing that intervention and disturbance of the site is not allowed.

In providing the community with a level of pride in its cultural and historical resources the names of the area and features that best reflect the French occupation, as decided by the local community, would appear on signage and other interpretive materials as developed in association with CALM and the Shire of Shark Bay.

(iii) Test excavation fieldwork conducted at the site is indicated.

A survey has already been conducted to map the area for designation as a maritime archaeological/historical site, mapping in features that dominate the landscape. Excavation would be based on documentary research, and on the location of the material evidence recovered by the finders. It is likely that the only area that has been investigated by the finders is the area 'cleared' by the crew of the *Uranie*. More investigation is needed on a larger scale, including other areas of the coast north and south of the 'cleared' area. Excavations should either be in the form of sample test pits or test trenches in selected areas, where the finding of material culture is most likely. Remediation of areas excavated must be undertaken.

(iv) Artefacts and other material culture excavated should be conserved (if needed), recorded (both *in situ* and after conservation) and displayed.

Shark Bay is in the process of establishing an interpretation centre in Denham. It is recommended that while material uncovered should be conserved, recorded and interpreted by Western Australian Museum staff, if required, it should be repatriated to Shark Bay for exhibition at the Shark Bay Interpretation Centre.

(v) In determining the nomenclature of parts of the bay, priority should be given to both Aboriginal and French names researched from historical and contemporary sources.

The notion that, in order to increase awareness of this site in Shark Bay and state wide, school children from the Shire be asked to name the parts of the bay, and the bay itself, merits further investigation. This adds an element of public awareness and ownership over the site eventually manifesting itself in pride of the State's historical sites. This would include naming the Bay and the two points at either end. It could also produce a name for the area that designates it as a

maritime archaeological/historical site. These recommendations will need to be agreed upon and used by all involved, and then be forwarded to the Department of Land Information, Geospatial Maintenance—Names section, for ratification.

(vi) In accordance with standard practice, where any future research is to be conducted in the area, the local Aboriginal groups will be consulted. All future activity at the site will also need to be conducted in association with CALM, its officers and the Shire of Shark Bay.

Further comments

It is further recommended that:

- (i) Further archaeological investigation should be conducted at the site. Future analysis should focus on the site formation process, illuminating the spread of artefacts and what depth and condition they may reside in. Excavation is a possibility at the site, though it appears from the archaeological record that material may be either concentrated in one particular area or spread across the coast of the bay. There is the further problem that, because of the short occupation, material might be widely scattered. It is unlikely that a lot of material would have been lost or discarded. The areas where artefact concentration could be largest may be determined from the contemporary pictorial evidence that was available for the site's location. It is not ruled out that excavation will find more evidence, but it seems unlikely that there will be a significant amount of material in any area. The use of metal detection, combined with a total station survey, could prove to be the most effective way of locating artefacts, though this rules out all non-metal artefacts that may remain at the site.
- (ii) Further archival research should be undertaken in order to investigate the travels of Arago, determining the direction of his travel and items mentioned in his works such as the 'pits' and 'bottle' (Arago, 1823). Although the de Freycinet site is not the first recorded place in New Holland where a recorded cultural exchange occurred between the indigenous people and European explorers (see Cornell, 1974:178, 491), the interactions and exchanges that occurred between the de Freycinet crew and the indigenous people makes this site historically important in anthropological terms.
- (iii) The importance of Rose de Freycinet as a pioneering circumnavigator should not be underestimated. Rose was one of the first women to circumnavigate the globe. As such, further studies should be carried out with a view to promoting this aspect in the context of Australia's early maritime explorers.
- (iv) Investigation of the marine environment be undertaken, to determine the distribution and variety of artefacts that may either have been deposited in, or spread to, the ocean from littoral drift.
- (v) A possible site for the mooring of the *Uranie* during this occupation at the bay be investigated, and determination of the nature and spread of artefacts present, if any.
- (vi) The region of the *Uranie* grounding in Shark Bay should also be investigated.
- (vii) This report should be widely publicised as a reminder of an important era in the development of Western Australia's 'French Connection'. Further to this, local residents should be encouraged to seek grants to research, document and present the history of the area.

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Appendix A: Survey data

Location: de Freycinet Camp Survey Date:25/5/2005

Point	UTM			Description
	East	North	Elevation	
21	742606.973	7155520.772	14.795	Top Of Cliff
22	742591.516	7155565.437	12.479	Top Of Cliff
23	742567.739	7155560.054	12.781	Top Of Cliff
25	742559.319	7155556.069	9.096	Ridge Line
26	742550.431	7155552.494	5.598	Ridge Line
27	742530.340	7155547.395	-1.803	Ridge Line
28	742504.023	7155544.294	-9.403	Ridge Line
29	742483.559	7155540.759	-16.082	Ridge Line
31	742477.965	7155546.885	-17.996	Cleared out camp line
32	742475.731	7155562.559	-17.670	Cleared out camp line
33	742470.393	7155579.091	-17.351	Cleared out camp line
34	742464.544	7155598.961	-17.626	Cleared out camp line
35	742458 340	7155620 234	-16.980	Cleared out camp line
36	742457,266	7155639,833	-17.514	Cleared out camp line
37	742449 523	7155663 090	-17 356	Cleared out camp line
38	742438 794	7155684 794	-17 139	Cleared out camp line
39	742429.079	7155707 382	-17 295	Cleared out camp line
40	742421 285	7155723.067	-17 726	Cleared out camp line
41	742409 682	7155741 880	-18 132	Cleared out camp line
42	742401.098	7155766 911	-17 899	Cleared out camp line
43	742388 121	7155789 188	-18 271	Cleared out camp line
44	742380 496	7155807.046	-18 209	Rocks
45	742339 292	7155868 491	-18 961	Rocks
46	742342 362	7155843 433	-19 144	Rocks with ovsters
40	742351 524	7155826 128	-19.092	Rocks with oysters
48	742351 552	7155825 903	-19.065	High Water Line
40	742364 765	7155810 463	-19.089	High Water Line
50	742390 480	7155763.070	-19 109	High Water Line
51	742410 232	7155721 778	-19.067	High Water Line
52	742432 666	7155678 643	-19.045	High Water Line
53	742402.000	7155656 739	-18 991	High Water Line
54	742446 569	7155633 452	-18 990	High Water Line
55	742444 664	7155619 345	-19 111	High Water Line
56	742456 616	7155589 440	-19.058	High Water Line
57	742465.088	7155559 448	-19 100	High Water Line
58	742470 458	7155530 471	-19.010	High Water Line
59	742473 136	7155496 498	-19 009	High Water Line
60	742469 986	7155469 859	-18 990	High Water Line
61	742460 402	7155439 769	-19.017	High Water Line
62	742454 846	7155410 549	-19.059	High Water Line
63	742434.040	7155382 214	-18.968	High Water Line
64	742434 772	7155356 558	-19.042	High Water Line
65	742418 250	7155333 787	-18.042	High Water Line
60	742300 720	7155308 474	_19.002	High Water Line
67	742361 537	7155280 234	-19.010	High Water Line
68	742325 /22	7155275 503	-10.041	High Water Line
60	7/2310 676	7155270 832	-19.009	High Water Line
70	742319.070	7155256 290	18 750	Change of grade
10	142340.743	1100200.000	-10.759	

71	742358.695	7155270.482	-17.541	Change of grade
72	742407.962	7155242.985	-14.081	Change of grade
73	742429.425	7155278.027	-15.521	Change of grade
74	742448.468	7155310.955	-15.922	Change of grade
75	742472.541	7155332.808	-12.234	Change of grade
76	742494.405	7155354.573	-10.241	Change of grade
77	742446.370	7155218.456	2.614	Ridge Line
78	742472.627	7155236.106	4.159	Ridge Line
79	742502.507	7155274.440	4.350	Ridge Line
80	742523.705	7155288.357	6.450	Ridge Line
81	742544.586	7155293.111	8.537	Ridge Line
82	742553.067	7155317.764	10.844	Ridge Line
83	742545.054	7155340.164	11.403	Ridge Line
84	742546.873	7155352.091	10.725	Ridge Line
85	742573.629	7155334.467	12.748	Top Of Cliff
86	742597.664	7155337.857	14.516	Top Of Cliff
87	742620.126	7155363.750	17.020	Top Of Cliff
88	742634.995	7155393.428	18.241	Top Of Cliff
89	742642.685	7155419.165	18.307	Top Of Cliff
90	742646.387	7155446.918	19.189	Top Of Cliff
91	742643.503	7155470.884	18.862	Top Of Cliff
92	742603.247	7155494.152	15.368	Top Of Cliff
93	742597.676	7155505.547	14.525	Top Of Cliff
94	742471.549	7155533.830	-18.838	Artefact- Washer
95	742413.533	7155314.064	-18.814	Centre Aboriginal Midden
96	742396.275	7155181.607	-2.960	Centre Aboriginal Midden
97	742396.106	7155169.522	-2.150	Centre Aboriginal Midden
98	742388.438	7155136.078	-0.059	Limit of Aboriginal Midden
99	742379.486	7155121.080	-1.375	Limit of Aboriginal Midden
100	742367.082	7155127.999	-3.716	Limit of Aboriginal Midden
101	742408.954	7155148.341	0.754	Limit of Aboriginal Midden
102	742420.550	7155160.936	0.144	Limit of Aboriginal Midden
103	742427.288	7155179.398	0.117	Limit of Aboriginal Midden
104	742443.862	7155363.250	-18.558	Small Cleared Area
105	742448.664	7155373.050	-18.610	Small Cleared Area
106	742465.371	7155411.993	-17.850	Small Cleared Area
107	742463.104	7155425.861	-17.965	Small Cleared Area
108	742477.172	7155479.910	-18.011	Small Cleared Area
109	742475.708	7155532.889	-18.029	Artefact-Button
110	742461.329	7155548.323	-19.877	Rock Structure
111	742463.267	7155531.728	-19.900	Rock Structure
112	742475.397	7155527.236	-17.916	Gully
113	742506.337	7155529.083	-12.545	Gully
114	742542.501	7155524.849	-6.224	Gully
115	742566.268	7155532.274	-2.775	Gully
116	742584.531	7155545.610	1.954	Gully
117	742591.471	7155524.643	2.977	Gully
118	742595.365	7155505.481	9.862	Gully

119	742601.964	7155507.613	12.019	Change of Grade
120	742606.080	7155522.556	9.485	Change of Grade
121	742611.441	7155532.632	11.739	Change of Grade
122	742605.217	7155548.214	10.125	Change of Grade
123	742587.903	7155561.797	7.123	Change of Grade
124	742570.735	7155555.766	7.086	Change of Grade
125	742561.164	7155551.861	6.209	Change of Grade
126	742546.259	7155530.044	-5.187	Change of Grade
127	742592.513	7155506.942	9.097	Ridge Line
128	742574.744	7155513.390	7.332	Ridge Line
129	742559.995	7155506.326	4.742	Ridge Line
130	742528.935	7155508.545	-4.042	Ridge Line
131	742508.345	7155515.149	-9.418	Ridge Line
132	742506.105	7155491.678	-12.159	Gully
133	742529.421	7155496.315	-5.454	Gully
134	742533.782	7155485.473	-3.526	Ridge Line
135	742514.346	7155480.954	-8.211	Ridge Line
136	742505.254	7155464.956	-12.003	Gully
137	742505.266	7155464.981	-11.999	Gully
138	742537.681	7155479.349	-6.096	Gully
139	742571.474	7155494.825	0.881	Gully
140	742593.185	7155496.990	5.573	Gully
141	742598.680	7155492.296	8.845	Ridge Line
142	742574.743	7155476.191	6.286	Ridge Line
143	742564.009	7155459.447	4.082	Ridge Line
144	742532.810	7155453.928	-3.875	Ridge Line
145	742511.515	7155446.592	-9.001	Ridge Line
146	742493.097	7155437.825	-14.806	Ridge Line
147	742569.160	7155572.403	12.458	Ridge Line
148	742584.841	7155586.081	13.750	Ridge Line
149	742574.853	7155609.561	12.555	Ridge Line
150	742552.498	7155640.490	10.866	Ridge Line
151	742532.000	7155659.694	9.820	Ridge Line
152	742507.613	7155674.716	9.047	Ridge Line
153	742500.512	7155673.638	5.183	Centre Aboriginal
454	740505 740	7455000 400	0.450	Midden
154	742505.716	7155688.439	9.159	Ridge Line
155	742488.674	/155/23.542	7.012	Ridge Line
156	742465.261	7155759.316	3.447	Ridge Line
157	742437.458	7155792.890	2.397	Ridge Line
158	742430.947	7155822.420	2.920	Ridge Line
159	742428.312	7155830.603	2.394	Ridge Line
160	742417.405	7155838.794	-0.251	Ridge Line
161	742419.485	7155858.935	1.377	Ridge Line
162	742431.408	7155879.060	4.015	Ridge Line
163	742441.400	7155885.293	4.743	Ridge Line
164	742451.569	7155882.173	4.997	Ridge Line
105	742452.471	7155860.214	3.039	
166	742446.437	7155853.988	4.826	Ridge Line
167	742438.840	/155867.217	1.112	Midden
168	742451.805	7155912.804	-0.060	Centre Aboriginal Midden
169	742463.616	7155888.085	0.915	Spot Height Natural
170	742482.147	7155854.889	1.656	Spot Height Natural
171	742494.479	7155815.453	2.251	Spot Height Natural

172	742500.382	7155775.520	2.637	Spot Height Natural
173	742531.260	7155746.626	6.046	Spot Height Natural
175	742564 536	7155707 007	10 133	Spot Height Natural
176	742576 294	7155651 529	12 231	Spot Height Natural
177	742450 486	7155944 017	-0.156	Centre Aboriginal
	1 12 100.100	1100011.017	0.100	Midden
178	742460.988	7155979.173	0.254	Centre Aboriginal
				Midden
179	742446.249	7155972.602	-1.122	Centre Aboriginal
190	740400 050	7155074 259	0.261	Midden Didgo Lino
100	742430.333	7155974.556	-0.301	Ridge Line
181	742415.870	7155898.824	-0.355	Ridge Line
182	742402.789	7155874.093	-2.775	Ridge Line
183	742402.033	7155767.892	-17.791	Glass late 19 Century
184	742478.457	7155600.645	-11.344	Ridge Line
185	742509.840	7155608.773	-3.872	Ridge Line
186	742536.224	7155608.315	3.295	Ridge Line
187	742547.015	7155611.359	5.653	Gully
188	742526.672	7155624.977	0.039	Gully
189	742525.889	7155638.984	-0.505	Gully
190	742493.815	7155642.422	-6.214	Gully
191	742479.055	7155669.452	-6.103	Gully
192	742447.454	7155715.889	-7.670	Gully
193	742453.039	7155687.154	-10.376	Ridge Line
194	742462.740	7155657.613	-12.302	Ridge Line
195	742470.587	7155633.081	-11.665	Ridge Line
196	742474.325	7155604.354	-12.355	Gully
197	742473.851	7155584.628	-15.283	Gully
198	742496.101	7155594.306	-10.627	Gully
199	742521.391	7155591.827	-4.157	Gully
200	742545.500	7155595.016	0.043	Gully
201	742553.513	7155578.586	6.299	Ridge Line
202	742530.233	7155573.484	0.518	Ridge Line
203	742508.959	7155573.512	-5.429	Ridge Line
204	742483.517	7155575.044	-12.159	Ridge Line
205	742483.467	7155549.627	-15.481	Gully
206	742501.917	7155554.925	-11.096	Gully
207	742528.339	7155565.728	-3.623	Gully
208	742547.176	7155566.012	2.289	Gully
211	742522.115	7155354.504	-1.654	Ridge Line
212	742497.781	7155368.594	-9.106	Ridge Line
213	742503.873	7155374.154	-10.116	Gully
214	742488.682	7155385.754	-13.447	Gully
215	742510.988	7155387.812	-7.591	Ridge Line
216	742531.708	7155376.846	-2.911	Ridge Line
217	742495.732	7155404.895	-12.483	Ridge Line
218	742505.638	7155410.878	-9.086	Ridge Line
219	742539.502	7155400.868	-4.970	Gully
220	742533.923	7155391.573	-7.326	Gully
221	742562.935	7155381.292	-2.852	Gully
222	742568.804	7155388.843	-0.866	Ridge Line
223	742593.803	7155373.494	6.004	Ridge Line
224	742599.106	7155385.255	0.399	Gully
225	742604.731	7155393.722	4.620	Ridge Line
226	742577.136	7155408.956	-1.064	Ridge Line
227	742552.322	7155416.769	-8.251	Ridge Line

228	742520.793	7155428.286	-11.994	Gully
229	742489.130	7155433.112	-14.917	Gully
232	742592.040	7155451.283	-2.253	Gully
233	742619.636	7155451.181	2.406	Gully
234	742618.168	7155444.115	4.436	Ridge Line
235	742616.972	7155438.776	0.962	Gully
236	742591.168	7155437.640	-0.282	Ridge Line
237	742588.942	7155425.772	-4.666	Gully
238	742615.816	7155399.286	2.109	Gully
239	742626.040	7155404.844	6.269	Ridge Line
240	742629.641	7155409.499	5.149	Gully
241	742603.919	7155360.265	7.915	Ridge Line
242	742598.956	7155357.915	4.884	Gully
243	742588.961	7155366.539	2.183	Gully
244	742576.815	7155369.918	-0.080	Gully
300	742612.879	7155532.845	14.000	Top Of Cliff
301	742606.639	7155549.537	14.500	Top Of Cliff
302	742602.638	7155507.490	14.500	Top Of Cliff
310	742479.660	7155533.600	-17.600	Cleared out camp line
311	742573.590	7155334.663	9.748	Gully
313	742619.960	7155363.865	14.020	Base of Cliff
314	742634.808	7155393.502	15.241	Base of Cliff
315	742642.489	7155419.207	15.307	Base of Cliff
316	742646.186	7155446.920	16.189	Base of Cliff
317	742643.316	7155470.761	15.862	Base of Cliff
318	742603.094	7155494.010	12.368	Base of Cliff
319	742597.401	7155505.654	11.525	Gully
320	742602.477	7155507.642	11.500	Base of Cliff
321	742606.787	7155520.848	11.795	Base of Cliff
322	742612.662	7155532.856	11.000	Base of Cliff
323	742606.466	7155549.428	11.500	Base of Cliff
324	742591.449	7155565.217	9.479	Base of Cliff
325	742567.783	7155559.859	9.781	Base of Cliff
326	742597.580	7155338.091	11.500	Base of Cliff
S1R	742568.192	7155562.565	12.993	Survey: Dumpy Peg
S2R	742446.675	7155883.687	5.095	Dumpy Peg
S3	742546.346	7155345.314	11.279	Survey: Star Iron Post

Appendix B: De Freycinet site artefacts

Reg. No	No.	Description	Mat. Code	Site Location
PP 4545	1	Lead shot. Irregular surface with small recent scratch. Diam. 16 mm; Wt 24.1 g	34	Peron Peninsula: De Freycinet Camp. ? near NM/F/258. 742461.329E–7155548.323N
PP 4546	1	Lead shot. Slightly flattened area on surface and evidence of mould line. Diam. 16 mm; Wt 25.3 g	34	Peron Peninsula: De Freycinet Camp. ? near NM/F/258. Found in rock cracks. 742461.329E–7155548.323N
PP 4547	1	Lead shot. Diam.16 mm; Wt 24.8 g	34	Peron Peninsula: De Freycinet Camp. ? near NM/F/258. Found in rock cracks. 742461.329E–7155548.323N
PP 4548	1	Lead shot. Diam, 16 mm; Wt 24.3 g	34	Peron Peninsula: De Freycinet Camp. ? near NM/F/258. Found in rock cracks. 742461.329E–7155548.323N
PP 4549	2	Circular 'washers'. Roughly made, with irregular central hole. Two adhering together with sand deposit. A–Diam. 71.5 mm; B–74 mm	34	Peron Peninsula: De Freycinet Camp. ? near NM/F/258. Found 2 m in sand above rock where lead shot were found. 742471.549E–7155533.830N
PP 4550	1	Circular 'washer'. Roughly made, with irregular central hole. Diam. 71 mm; Wt 107.7 g	34	Peron Peninsula: De Freycinet Camp. ? near NM/F/258. 742471.549E–7155533.830N
PP 4551	1	Lead shot. Diam. 16.5 mm; Wt 25.7 g	34	Peron Peninsula: De Freycinet Camp. ? near NM/F/258. 742461.329E–7155548.323N
PP 4552	1	Bird shot. Diam. 5 mm; Wt 0.8 g	34	Peron Peninsula: De Freycinet Camp. ? near NM/F/258.
PP 4561	1	Button, copper alloy.	32	Peron Peninsula: De Freycinet Camp. 742475.708E–7155532.889N
PP 4566	1	Lock.	32	Cape Lesueur, Peron Peninsula: to the North of De Freycinet Camp