A TRANSIENT HERITAGE:
TREPANGING SITES ON THE COBOURG PENINSULA

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Introduction

Of the many aspects of north Australian history that reflect a multicultural theme, one of the most celebrated must be the Arnhem Land trepang fishery. Initially monopolized by Macassans from Southern Sulawesi, the industry later included locally based European, Indonesian, Polynesian and Japanese fishermen. Aboriginal people also played a pivotal role in this industry. The activities of this diverse group of people are manifested in a series of archaeological sites along the coastline of Arnhem Land. This paper assesses the current state of preservation of trepang sites from the Cobourg Peninsula area of north western Arnhem Land (Figure 1), and identifies some of the challenges and opportunities that these sites present to cultural resource managers.

Ongoing concern about trepang sites by cultural resource managers is warranted given the often fragile state of these sites. Trepang sites, which are almost invariably found on exposed sections of the coastline, are particularly vulnerable to erosion. The erosion of Macassan sites was taking place even while their voyages to Australia were still continuing. For example, Alfred Searcy (1909:80) encountered at the Goulburn Islands ...

...a comparatively new [Macassan] camp, the old one they had been in the habit of using having been washed away.

More recently, a number of archaeologists and ethnographers (Baker, 1984:5; Berndt and Berndt, 1947; MacKnight, 1976:75-76) have referred to Macassan sites which are known to have been lost through erosion, including some on the Cobourg Peninsula.

Currently national park, the Cobourg Peninsula is managed jointly by its traditional Aboriginal owners and the Conservation Commission of the Northern Territory (CCNT). Adjoining areas of the mainland and the offshore islands are part of the Arnhem Land Aboriginal trust. Despite a long history of visitors from the outside world the area remains extremely isolated and most of the region remains as wilderness (CCNT, 1987). For many years visitors to this region found it to be a harsh and unforgiving landscape. Two British military settlements, Fort Wellington and Victoria, were established and abandoned early in the nineteenth century.

Later ventures, including pastoral development, logging, and buffalo shooting were also unsuccessful. The only consistently viable industry to have operated in this region is the trepang fishery.

A number of topics are addressed in this paper. These include the history of the trepang fishery in the area, the nature of the resulting archaeological remains, and the current state of preservation of these relics. Natural geomorphological processes, in particular erosion through wave action, is identified as the major obstacle to the continued preservation of these sites. The paper concludes with an assessment of the heritage significance of the fishery’s archaeological record, together with a discussion of some of the options and challenges open to cultural resource managers interested in this area.

Trepang Fishing On The Cobourg Peninsula: A Brief History

Alfred Searcy’s description of a Macassan camp at Bowen Straits in 1883 paints an evocative picture of the trepang fishery on the Cobourg Peninsula:

To think such a scene was possible in Australia!

There were four praus anchored close to the beach, some sixteen dredging canoes at work, and numerous smaller ones plying between the praus and the beach. On shore were four great smokehouses, built of bamboo and palm leaves. Of Malays there were about one hundred engaged...with the preparation of trepang. Some had only scant clothing, others wore their gay sarongs, and all had gaudy handkerchiefs twisted around their heads

(Searcy, 1909:26-27).

The ‘Malays’ that Searcy referred to were a group of highly organized Muslim fishermen, most of whom derived from the Port of Macassar (now known as Ujung Pandung) in Southern Sulawesi. Although predominantly Macassarese, the crews could include Bugis people from Southern Sulawesi and less frequently individuals from Timor, Java, and even Irian Jaya (Earl, 1846a:240).

The Macassans who travelled to Arnhem Land worked between Cape Don to the west and the Sir Edward Pellew Islands to the east (MacKnight, 1976:36). Their objective was not to establish permanent settlements, so they did not bring women or young children. Instead, the Macassans sought trepang, which were sold to the Chinese who regarded it as a delicacy and an aphrodisiac. Taking advantage of the monsoon winds, the Macassans arrived in Australia each year in December or January, and departed between April and June (NTRS 790/A3199; NTRS...
The Cobourg Peninsula was an important area for Macassan activities. It was the first trepangning grounds that the Macassans reached on their trip from Sulawesi, and also the area where the praus mustered before the journey home (Earl, 1842:240). The most important task of the Macassans in Arnhem land was to gather and preserve trepang. Gathering trepang was a relatively simple process, whether it was done by hand, with short iron tipped spears, or with dredges mounted on dugout canoes (Briefly m.s.; Earl, 1846b:83; d'Urville, 1987:394; Searcy, 1909:23; CRS A1/1905/7499).

The first step in processing the trepang was the construction of a stone furnace, known as a stoneline. A framework of wood or bamboo was erected over the top of the stoneline, and iron cauldrons full of water were placed on the framework. A fire was lit in the stone bays underneath the cauldrons, and the water brought to the boil. Trepang were scalded in the boiling water, then removed and gutted. The trepang were then returned to the boiling water, and cooked with mangrove bark until firm and elastic. At this point the trepang were sometimes buried in the ground (to leach calcium carbonate out of the skin) for a period that might last several days (MacKnight, 1976:53-54). The final stage in the trepang preparation was to smoke them in a bamboo smokehouse. A fire was maintained continuously under the trepang for much as 24 hours until the trepang became hard.

Preserving the trepang, however, was a lengthy, exacting and labour intensive task (e.g. HRA III(6):800-801; Sydney Morning Herald, 15/10/1845; d'Urville, 1987:394; Jukes, 1847:359-360; Earl, 1846b:58; Flinders, 1814:231; Barker in Mulvaney and Green, 1992:166; Leichhardt in Webster, 1986:25,53; NTT &G 27/2/1874; CRS A1/1905/7499). It is worth describing the techniques used to preserve trepang, as the relics of this process form a major component of the archaeological remnants of the trepang fishery on the Cobourg Peninsula.

Like the Macassans, local trepangers on the Cobourg Peninsula derived from an extremely diverse range of cultures. South Australian, George Sunter (an Englishman), Sunter's Japanese assistant Hana, a Maori named Willie Rotimer, Jimmy Kwahio from Rarotonga, and Tingha de Hans from Timor (Campbell, 1917; CPP 1913/45:37; Masson, 1915; Sunter, 1937).

While offering little direct competition, the activities of local trepangers indirectly impacted on the Macassan industry. From 1882 onwards the South Australian Government imposed heavy taxes on the Macassan fishermen, principally as a means of encouraging the local industry. To this end a customs station was established at Bowen Straits in 1884 to enforce these levies. Taxation became increasingly onerous, leading to a steep decline in the size of the Macassan industry until 1906, when Macassans were effectively banned from the Arnhem Land coastline by the South Australian government (cf. MacKnight, 1976:100-126).

At least three major differences between the Macassan and the local trepang fishing industry can be identified. Firstly, Macassans established no permanent habitation sites in Australia. They frequently travelled between trepangning sites and normally lived on their praus while in Australia (e.g. d'Urville, 1987:393). Local trepangers instead maintained permanent or semi-permanent campsites, and at least one (Alf Brown) built a hut and planted gardens at his station at Blue Mud Bay (Sunter, 1937:39).

The second difference concerns the scale of the enterprises. Macassan fleets could be extremely large: for example, in 1829 the residents of Port Wellington, in Raffles Bay, were visited by 34 Macassan praus manned by 1056 men (Barker in Mulvaney and Green, 1992:168; MacKnight, 1976:130-131). These visitors represented approximately half of the Macassans in Arnhem Land that year (Barker in Mulvaney and Green, 1992:140). Macassan praus with as many as 60 crew members have been documented (NTRS 790/12158; NTT &G 8/1/1904), and over two hundred Macassans have been recorded working in Port Essington at one time (Sydney Morning Herald, 15/10/1845). By contrast, local trepangers operated alone, or with a small number of partners. Furthermore, the local industry remained small. At its peak in 1921, the local industry in Arnhem Land involved only 21 licensed trepang fishermen, operating from 14 licensed fishing boats (CPP 1921/119:76).

The third difference was the role of Aboriginal people in the Macassan and the local fishery. Relationships between Macassans and Aboriginals on the Cobourg Peninsula ranged between open warfare to amicable social, trading and working relationships (Mitchell in prep). Particularly in the second half of the nineteenth century, Cobourg Peninsula Aboriginals assisted Macassans in gathering and processing trepang, while Macassans entered into sexual relationships with Aboriginal women (see Mitchell in prep). Nonetheless, due to their relatively large crew sizes,
Macassans were in no way dependent on Aboriginal labour, or even Aboriginal goodwill, in order to fish for trepang in Arnhem Land.

By contrast, Aboriginal labour was critical to the local industry. Because of the small numbers of local entrepreneurs, Aboriginal labour was crucial for the highly labour intensive processes of gathering and particularly preserving the trepang. Furthermore, some European trepangers actually learned the trade from their Aboriginal employees (e.g. Sunter, 1937:43), and at least one Aboriginal man, Tim Mamitpa, ran a trepang station on a ‘sub-contract’ basis for Europeans (Strangman, 1908; Sunter, 1937). While contemporary government records provide no indication of the number of Aboriginal people in the industry, they do acknowledge the importance of their contribution. For example, one official stated of the trepang industry that

'The natives along the coast do most of this work...without their assistance the takings would be small. (CPP 1913/45:145).

Limitations on the availability of Aboriginal labour was often cited as the reason why the local industry never expanded to the size of the Macassan fishery (e.g. CPP 1913/45:37; GRS 1/1903/438; Harney, 1946:195).

Despite these differences, Macassans and the locally based fishers used virtually identical methods to process the trepang. Both groups built stonelines and smokehouses (cf Harney, 1946:105-106). Furthermore, both groups located their activities in close proximity to the shoreline. This was important in order to remain in close proximity to the trepanging grounds and to adequate supplies of the mangrove wood, bark and leaves which were used to process the trepang. Today, it is on the coast that the remains of the trepang fishery can be found.

Trepanging Sites On The Cobourg Peninsula

There is a range of archaeological materials associated with the trepang fishery on the Cobourg Peninsula. Archaeological investigations in the Cobourg Peninsula area (Baker 1984; MacKnight, 1969; Mitchell in prep; Tacon, 1988, 1989) have revealed a total of 21 archaeological sites associated with the trepang fishery (Figure 1). Table 1 summarizes the archaeological remains currently present on each of these sites.

Table 1. Trepanging Sites from the Cobourg Peninsula

<table>
<thead>
<tr>
<th>ID</th>
<th>LOCATION</th>
<th>TYPE</th>
<th>CURRENT ARCHAEOLOGICAL REMAINS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Popham Bay</td>
<td>M/L</td>
<td>2 stonelines, tamarinds, porcelain, glass, flaked glass, stone flakes.</td>
</tr>
<tr>
<td>2</td>
<td>Blue Mud Bay</td>
<td>L</td>
<td>1 stoneline.</td>
</tr>
<tr>
<td>3</td>
<td>Blue Mud Bay</td>
<td>M/L</td>
<td>2 stonelines, galvanised iron, pottery, glass, stone axe fragments.</td>
</tr>
<tr>
<td>4</td>
<td>Araru Point</td>
<td>M</td>
<td>2 stonelines, 1 smokehouse, tamarinds.</td>
</tr>
<tr>
<td>5</td>
<td>Trepang Bay</td>
<td>L</td>
<td>1 stoneline, glass, pottery, flaked glass, stone flakes.</td>
</tr>
<tr>
<td>6</td>
<td>Trepang Bay</td>
<td>L</td>
<td>Tamarinds, glass, pottery, flaked glass.</td>
</tr>
<tr>
<td>7</td>
<td>Trepang Bay</td>
<td>M</td>
<td>1 stoneline, 1 smokehouse, glass, tamarinds.</td>
</tr>
<tr>
<td>8</td>
<td>Curlew Bay</td>
<td>M</td>
<td>1 stoneline (could not be relocated).</td>
</tr>
<tr>
<td>9</td>
<td>Knocker Bay</td>
<td>M</td>
<td>2 stonelines, tamarind, glass.</td>
</tr>
<tr>
<td>10</td>
<td>Port Essington</td>
<td>M</td>
<td>Earthenware pottery.</td>
</tr>
<tr>
<td>11</td>
<td>Middle Head</td>
<td>L</td>
<td>2 stonelines, tamarind, flaked glass.</td>
</tr>
<tr>
<td>12</td>
<td>Record Point</td>
<td>M</td>
<td>1 stoneline.</td>
</tr>
<tr>
<td>13</td>
<td>Port Bremer</td>
<td>L</td>
<td>1 stoneline.</td>
</tr>
<tr>
<td>14</td>
<td>Port Bremer</td>
<td>M</td>
<td>2 stonelines, 1 smokehouse.</td>
</tr>
<tr>
<td>15</td>
<td>Port Bremer</td>
<td>L</td>
<td>1 stoneline.</td>
</tr>
<tr>
<td>16</td>
<td>Port Bremer</td>
<td>L</td>
<td>1 stoneline, glass.</td>
</tr>
<tr>
<td>17</td>
<td>Raffles Bay</td>
<td>M</td>
<td>3 stonelines, 1 smokehouse.</td>
</tr>
<tr>
<td>18</td>
<td>Raffles Bay</td>
<td>M/L</td>
<td>2 stonelines in front of abandoned European settlement.</td>
</tr>
<tr>
<td>19</td>
<td>Whitecliffs</td>
<td>M</td>
<td>Tamarinds, possibly a buried stoneline.</td>
</tr>
<tr>
<td>20</td>
<td>Irgul Point</td>
<td>L</td>
<td>1 stoneline, 1 smokehouse, tamarinds, pottery, glass, metal, concrete building foundations, Aboriginal midden deposit.</td>
</tr>
<tr>
<td>21</td>
<td>Copeland Island</td>
<td>M/L</td>
<td>6 stonelines, 2 smokehouses, tamarinds, pottery, glass, metal artefacts, Aboriginal midden deposits.</td>
</tr>
</tbody>
</table>
While the archaeological remains reflect the industry's multicultural history, they also reflect the essentially ephemeral nature of the trepang fishers' activities. Building remains occur at only one of the sites associated with the industry, the customs station at Bowen Straits (Site 20). Structural remains at this site include a concrete building foundation, as well as a stoneline and a smokehouse depression. While trepanging was carried out here by local fishermen, this site is unique because it was also a government outpost. Only one other site, a local trepanging camp in Trepang Bay (Site 3), contains building materials, consisting of several sheets of galvanized iron.

As Table 1 indicates, virtually all of the trepanging sites on the Cobourg Peninsula contain stonelines, apparent as a line of adjacent semi-circular stone fireplaces. These features are often associated with mounds of ash, sand and charcoal, reflecting the intensive burning required to cook the trepang. Another feature found on both local and Macassan trepanging sites are the remains of smokehouses, normally represented by rectangular depressions with a ridge of sediment around the edge. Where organic preservation is good, these features also contain concentrations of ash and charcoal. Finally, trepanging sites often include specimens of the tamarind tree, Tamarindus indica. Originally introduced to Australia by Macassans, the fruits of the tree were consumed by both Aboriginals and European trepangers (Searcy, 1909:73; CPP 1911/39:11), and the plant is now a common feature on Macassan and local trepanging sites.

Many trepanging sites contain assemblages of smaller artefacts which reveal information concerning the domestic activities of their occupants. Earthenware pottery, sometimes decorated with an incised pattern, and (usually fragmented) Dutch gin bottles are the most common types of artefacts found on Macassan sites. Assemblages found on local trepanger's sites are somewhat different, including artefacts such as fragmented European porcelain; rum, beer, medicine, and Worcestershire sauce bottles; clay pipes, and metal artefacts such as knives and lengths of chain. Also reflecting the multicultural nature of the fishery, Aboriginal artefacts are found on a large proportion of the trepanging sites. These may include flaked or ground stone artefacts, and bottles which have been broken and flaked to form cutting tools.

Figure 1: Trepang Sites from the Cobourg Peninsula Area.

Copeland Island, one of the largest and best preserved trepanging sites in western Arnhem Land, illustrates many of the features listed above. Historical records reveal that...
the island was a major center for Macassan trepang fishing and processing during the nineteenth century (Cadell, 1868:10; King, 1837:77-78). Macassans working at the island were assisted by Aboriginals (Howard, 1866:1), and later in the twentieth century it was used by European trepangers (Sunter, 1937:218). Archaeological materials at Copeland Island, which include Macassan, Aboriginal and European artefacts, are concentrated on a low sandy projection at the southern end of the island (Figure 2).

The most prominent features of this site are the tamarind trees, visible from at least a kilometre away, and the six stonelines. Stonelines 1 through to 5 are Macassan in origin, while stoneline 6 is likely to represent the remains of a trepanging camp run by George Sunter in the 1920s (cf Mitchell in prep).

Figure 3 illustrates two of these stonelines in detail. The arrangement of the Macassan stonelines - along a single axis, parallel, and perpendicular to the beach - is typical of Macassan sites. Extensive mounds of deposit have built up along the long axes of four of these structures. Excavation of a trench through Stoneline 3 revealed the presence of several thick layers of charcoal and ash.

Structural remains also include two shallow, roughly rectangular depressions surrounded by a ridge of scooped out earth. These features are likely to represent either smokehouse depressions or the remains of pits used to bury the trepang during processing. Shards of glass and earthenware pottery (some of which are decorated with an incised pattern) are scattered on the surface in the vicinity of the Macassan stonelines. A number of artefacts have previously been collected from the site prior to my research, including a Dutch copper doit bearing the inscription 'JAVA 1808' on the front, together with the 'VOC' symbol of the Dutch East India Company on the reverse. Other artefacts previously collected from the site include a spoon, Chinese porcelain and a metal scabbard (MacKnight, 1969:129; F. Woerle, pers. comm.).

The final major archaeological feature at Copeland Island is a dense midden deposit, including shellfish, turtle, lizard and fish bones, pottery and glass. The presence of flaked glass and flaked stone artefacts in the midden indicates it was occupied by Aboriginals, but it is possible that Macassans contributed to the deposit.

Materials listed in Table 1, and identified at Copeland Island, do not necessarily represent the full range of material residues from the trepanging industry. For example, carved wooden Macassan grave posts formerly existed on the Macassan site at Whitecliff on Copeland Island (they are shown in the film The Wiril Canoe). These features no longer exist, and were probably either deliberately removed or destroyed in a fire. A resident of the Cobourg Peninsula in the 1960s is said to have seen a shipwrecked Macassan prau at the mouth of Port Essington, but by the early 1980s no trace of this feature remained (Baker, 1984:42). Abandoned dugout canoes have also occasionally been found in the area (P. Garbinyara, pers. comm.) and some of these may have been Macassan in origin. These types of remains may be found by archaeologists in the future, but it is likely that the great majority are too fragile to have survived.

The Conservation Status Of Trepanging Sites

The conservation status of the trepanging sites from the Cobourg Peninsula is summarized in Table 2. This table lists damage known to have occurred to the site in the past (if any) together with prospects for the preservation of the site in the immediate future. Information has been compiled from three sources. Firstly, the majority of these sites were visited by the author in 1990 and 1991, partly...
Table 2. Conservation Status of Trepang Sites from the Cobourg Peninsula

<table>
<thead>
<tr>
<th>ID</th>
<th>Conservation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Currently being eroded, stoneline exposed on erosion face. Two stonelines probably destroyed in past.</td>
</tr>
<tr>
<td>2</td>
<td>Vulnerable. Stoneline is only 1m from high tide mark.</td>
</tr>
<tr>
<td>3</td>
<td>No known damage, but site is directly adjacent to coastline and is therefore potentially vulnerable.</td>
</tr>
<tr>
<td>4</td>
<td>Currently being eroded. A grave, at least one stoneline and portable artefacts lost from site.</td>
</tr>
<tr>
<td>5</td>
<td>No damage known.</td>
</tr>
<tr>
<td>6</td>
<td>Currently being eroded. According to traditional owners there was formerly a smokehouse and stonelines on this site which have been washed away. The beach once extended further out to sea than it does now.</td>
</tr>
<tr>
<td>7</td>
<td>No damage known.</td>
</tr>
<tr>
<td>8</td>
<td>Site lies below the high tide mark in a mangrove forest. Could not be relocated. May have washed away or have been covered in mud since 1982.</td>
</tr>
<tr>
<td>9</td>
<td>Currently being eroded. Macassan pottery has been removed by private collectors.</td>
</tr>
<tr>
<td>10</td>
<td>Trepang processing at this site historically documented but no stonelines or smokehouses have been found. Site is a major tourist destination and is vulnerable to artefact collectors.</td>
</tr>
<tr>
<td>11</td>
<td>Site is approximately 50m from current shoreline, likely to be stable.</td>
</tr>
<tr>
<td>12</td>
<td>Artefacts, including iron cauldron, have been removed by private collectors. A stoneline has been used to construct a modern fireplace.</td>
</tr>
<tr>
<td>13</td>
<td>No damage known.</td>
</tr>
<tr>
<td>14</td>
<td>At least three stonelines and two smokehouses appear to have been buried by sand drifts.</td>
</tr>
<tr>
<td>15</td>
<td>No damage known.</td>
</tr>
<tr>
<td>16</td>
<td>Stoneline lies in the middle of a pearling camp. A fence has recently been erected around the structure.</td>
</tr>
<tr>
<td>17</td>
<td>At least 5 stonelines and associated artefacts have been destroyed by erosion. Site is vulnerable to further erosion.</td>
</tr>
<tr>
<td>18</td>
<td>No direct damage has occurred to the stonelines but the site is now used as a dumping ground by pearling operators. Site requires monitoring.</td>
</tr>
<tr>
<td>19</td>
<td>A stoneline present in the 1960s can no longer be found. This structure has either been destroyed or covered in sand drift.</td>
</tr>
<tr>
<td>20</td>
<td>Site has good prospects of continued survival due to its protected topographic context.</td>
</tr>
<tr>
<td>21</td>
<td>Site appears to be stable, but is potentially vulnerable to erosion due to its proximity to the ocean.</td>
</tr>
</tbody>
</table>

with the aim of assessing their current state of preservation. Secondly, I was fortunate to be able to visit these sites in the company of some of the area’s Aboriginal custodians. These men were able to inform me about the extent of erosion that had taken place on some of the sites during the course of their lifetimes. Finally, I was able to compare my records of the sites to those made in previous archaeological surveys of trepanging sites in the area (Baker, 1984; MacKnight, 1969; Tacon, 1988). The first of these surveys took place in 1967, ensuring that changes which have taken place on some sites can be assessed over a 25 year period. Three processes are currently impacting on trepanging sites in the region: commercial activities, private artefact collectors, and geomorphological processes.

Development and Commercial Activities

Commercial activities have impacted on some trepanging sites in the past. For example, Baker (1984:15) found a Macassan stoneline at Record Point which had allegedly been pulled apart by a hunting safari company and used to construct a furnace for boiling down animal heads. There is a stoneline in Port Bremer which is now in the middle of a pearling camp, although the residents have erected a fence around it and currently appear aware of the site’s heritage value. Most recently, the beach in front of Fort Wellington, on which there are two stonelines, has been used as a dumping ground for equipment from a nearby pearling lease (K. Mulvaney, pers. comm.). Nonetheless, the area’s remote location, and its status as Aboriginal land and/or a national park, appear to have
precluded major economic developments in the region. As a result, the great majority of the area remains in its natural state, and no trepanging sites are currently under direct threat of destruction from commercial activities.

Casual Artefact Collectors

Macassan sites in particular have been a popular target for private artefact collectors. A number of Macassan artefacts are known to have been removed, most notably an iron trepang boiling cauldron from Record Point (MacKnight, 1969:118). Other materials removed from sites include Macassan earthenware pottery and Chinese porcelain, coins and Dutch gin bottles. At least one private collector has recently located artefacts with a metal detector and dug them up with a shovel. Trepanging sites are inherently fragile and uncontrolled excavations of this nature have the potential to damage the integrity of artefact deposits.

Geomorphological Processes

The most critical factor in determining the survival of trepanging sites, however, is their vulnerability to geomorphological processes operating on the coastline. One characteristic that all trepanging sites listed in Table 1 share is a close proximity to the shoreline. For example, Site 11, at Middle Head, was the farthest from the shore, lying approximately 50 metres beyond the high tide mark. The structural remains at the customs station in Bowen Straits lie beyond the crest of cliffline which is directly adjacent to the high tide mark. Because of their topographic contexts these sites are not likely to be exposed to erosion, at least in the short term.

By contrast, most other trepanging sites from the area are in substantially more exposed locations (Table 2). Five trepanging sites are directly adjacent to the high tide mark and are currently being eroded into the sea. Another two sites lie within a metre of the shoreline and must be considered highly vulnerable to further damage. One Macassan stoneline, at Curlew Bay, lies below the high tide mark in a stand of mangroves (cf Baker, 1984:15). Thus nearly half of the recorded trepanging sites on the Cobourg Peninsula have been partly destroyed, or are likely to be destroyed by wave action in the near future.

One of the clearest examples of this process is from a Macassan site on a small island in Raffles Bay. This site was first documented in 1827, when a party of Europeans discovered

machinery which had been established by the Malas...consisting of four or five sets of stone built furnaces with frames of wood over each...”

(HRA III(5):811). Macassans were also observed on the site in 1838 when a French expedition saw four Malay praus anchored off the island. At this time Macassans used stonelines on the island and erected a number of smokehouses (d’Urville, 1987:389-390).

In 1967 the site was apparently relatively intact and contained eight stonelines, one smokehouse depression, a grave, and a scatter of earthenware pottery (MacKnight, 1969:123). During my visit in 1991 I found only three stonelines and a circular arrangement of stone. David Minimak, a traditional owner from the area, said that the latter was a grave. No portable artefacts such as glass or pottery were visible on the surface of the site, and no smokehouse depressions were observed. The apparent loss of over half of the structural remains and the surficial artefact scatter cannot be explained as the result of poor surface visibility, as the island had been burnt off immediately prior to my visit. According to David Minimak (pers. comm.) the majority of the features on this site had been destroyed during cyclonic activity in the 1970s.

Other trepanging sites have been impacted by a more gradual process of erosion. One example is Site 4 at Araru Point. In 1967 a resident of the area recorded that there was a tamarind tree, green glass fragments and earthenware pottery at this site (MacKnight, 1969:113). There was no mention made of any structural remains, but MacKnight also recorded the fact that Lindner had been told by Aboriginals that a grave existed in the area. An archaeologist first recorded this site in 1982 (Baker, 1984) at which time a tamarind, three stonelines, but no surficial artefacts were present on the site.

On visiting this site in 1991 I found the tamarind, a smokehouse depression and only two stonelines. The stonelines are now directly adjacent to the high tide mark and according to R. Cunningham, senior Aboriginal land owner for the area, the third stoneline had recently been washed away by the encroaching ocean. Furthermore, he stated that there had once been a Macassan grave at this site, in which a Macassan captain had buried his dead son in a dugout canoe, together with coins and a Macassan knife. Aboriginal custodians of the area stated that this grave had also been eroded away, and stated their opinion that the entire Macassan site at Araru Point will eventually be destroyed through erosion.

In other cases, geomorphological processes have caused trepanging material to be buried, rather than eroded. One clear example of this process is presented by the Macassan site at Whitecliff. A Macassan stoneline is depicted at this site in the ethnographic film The Wiril Canoe, which was shot in the late 1960s. This stoneline is no longer visible at the site, and also could not be located in a previous archaeological survey (Tacon, 1988:29). It is possible, from the film, to work out the exact place where this feature was located, and on this basis it seems highly likely that the feature has been covered in a sand drift. This may
afford the structure a degree of protection, but it is impossible to determine its current state of preservation.

Processes leading to the erosion or modification of trepanging sites are likely to accelerate in the future if scientific predictions of global warming and the greenhouse effect are accurate. One implication of such large scale climatic changes is likely to be an increase in sea level as well as increases in the intensity, distribution and frequency of cyclones (e.g. Evans, 1991; Henderson-Sellers and Blong, 1989; Love, 1988). If this occurs, then coastal sites on the Cobourg Peninsula, as well as many other areas of Australia, are likely to become even more vulnerable to erosion and inundation (cf Bird, 1992:83).

Management Of Trepanging Sites: Options And Challenges

It is not my intention here to define a management strategy for dealing with trepanging sites. Instead, I aim to outline some of the major challenges that face cultural resource managers dealing with this area in the future. Challenges derive not only from the fragility of these sites, but their remote nature and the range of community groups that may have a legitimate interest in the management of the trepanging sites.

Beyond this it needs to be recognised that the continued erosion of trepanging sites is inevitable. Earthworks or other programmes aimed at stabilising the beaches on which trepanging sites are located are probably not cost effective. The remote location of these trepanging sites would probably ensure that such a programme would be extremely expensive and difficult to monitor. Perhaps most importantly is the extent to which cultural heritage should take precedence over natural heritage. Stabilisation programmes may compromise the natural heritage values of the Cobourg Peninsula coastline for which the area is renowned.

Attention may instead have to focus on maximising the information and artefactual material that can be collected from these sites while they still exist. Strategies that are typically employed to meet these goals are salvage excavations and artefact collections. Sensitivity to Aboriginal cultural values may in some cases preclude such activities. During my PhD research I encountered a range of Aboriginal opinions regarding archaeological research. Many Aboriginal people were comfortable with archaeological research, including excavations, taking place on their land. Some senior clan members, however, while opposed to excavations of archaeological sites, were comfortable with some other types of archaeological activity. Cultural resource managers may have to explore options such as use of magnetometers, or ongoing monitoring of sites which are actively eroding.

It should be stressed that the interest of Aboriginal people in trepanging sites opens opportunities for cultural resource managers. It may be possible to organise a programme through which traditional owners monitor ongoing changes to archaeological sites on their land. Furthermore, detailed research into the oral histories maintained by Aboriginal people regarding the trepang fishery is likely to contribute significantly to our knowledge of these sites.

Archaeologists and cultural resource managers in Australia have shown great concern in recent years with ensuring that Aboriginal groups are consulted concerning research or management programmes on Aboriginal archaeological sites (e.g. Creamer, 1990; Flood, 1989). One further challenge to cultural resource managers is the
extent to which descendants of the Macassans in Indonesia hold a legitimate interest in Australian trepanging sites. Individuals directly descended from Macassans who travelled to Australia have been identified (Spillet, 1987), and kinship networks have been traced between Indonesians and Arnhem Land Aboriginals (Cooke, 1987). It is clear that at least some descendants of Macassan trepangers maintain an interest in Australia, evidenced by the recent re-enactment voyage, and speculation over the possibility of Macassan-style claims over access by Indonesian fishermen to Australian waters (Sunday Territorian, 1/8/1993). Should residents of Sulawesi be consulted over the future of Macassan sites in Arnhem Land, and if so, how?

Finally, Macassan trepanging sites present a challenge to the whole of Australian society. There is no doubt that a large and thriving Indonesian industry was taking place in Australian waters before European colonisation of the continent. Indonesians, some of whom may be descendants of the Macassan trepangers, continue to fish in Australian waters, and some face arrest and the destruction of their boats (Campbell and Wilson, 1993). In a year which has seen an unprecedented level of recognition for indigenous rights in this country, the trepanging sites must give us cause for reflection on the wisdom and the justice of our policies and attitudes towards our northern neighbours.

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Bibliography

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The following abbreviations are used in this paper:

HRA: Historic Records of Australia

CPP: Commonwealth Parliamentary Papers

NTT: Northern Territory Times and Gazette

GRS: Government Resident’s Correspondence, Northern Territory (South Australian Archives)