USE OF THESES

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The Macassans

A study of the early trepang industry
along the Northern Territory coast

by

C.C. Macknight

This case contains:


Sheet 1  Map showing the location of sites described in the gazetteer (chapter 5)

2  Plan of the Amuru Bay site

3  The Amuru Bay site: surface collections

4  The Amuru Bay site: sections

5  Lyãba: site plan and surface collections

6  Lyãba: sections, and plans of sites 32c,f, & g
Two Macassan Burials in Arnhem Land

BY C. C. MACKNIGHT AND A. G. THORNE
TWO MACASSAN BURIALS IN ARNHEM LAND

BY C. C. MACKNIGHT¹ AND A. G. THORNE²

FROM as early as the second half of the eighteenth century it has been known that the north coast of Australia was being visited by trepang fishermen from the port of Macassar in the Celebes, and the industry continued until the first years of the present century. In the Australian context these people are known as Macassans, though this term does not imply any specific ethnic or cultural identity in Indonesia. It is probable however that in fact the majority of these people were Macassarese-Buginese, as their captains certainly were. No firm estimate can be made of when the industry began, but it is most unlikely to have existed much before the beginning of the eighteenth century.³ The coastline worked by the Macassans in the Northern Territory stretches from Melville Island to about the Queensland border, though the most intense activity was in the central portion, from Croker Island to Groote Eylandt. There was also another branch of the industry along the Kimberley coast, south from Cape Londonderry, but the identification of the groups visiting this area is more complex than in Arnhem Land. Thus for about 200 years, as many as 1,500 men came annually to spend four or five months in Australia.

This paper records the excavation of two skeletons of these Macassan trepangers.

EXCAVATION

In July, 1966 during the course of an archaeological investigation of a trepang processing site on a small peninsula on the east side of Anuru Bay, Arnhem Land (Lat. 11° 46' S : Long. 133° 22' E.) a rectangular pile of stones was noticed on the northern extremity of the occupied area and about 15 m. behind the high water mark of a fine sheltered beach facing NW.⁴ (Plate 1A). An area 2 m. × 2 m. was marked out over the stones and the deposit in each of the four square metres sieved separately (Fig. 1). Approximately the top 10 cm. of deposit consisted of the rather dark grey sandy disturbed layer found all over the site. Below this, excavation in the two easterly square metres soon revealed the grave trench of burial II in section

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³ One of us (C.C.M.) is preparing a detailed account of the entire industry, which will fully set out the evidence for this and a number of other general statements made here.
⁴ A full description of the site will be published in due course. For purposes of reference, the site is known as the Anuru Bay site, or number 9 in Macknight’s forthcoming gazetteer of Macassan sites in the Northern Territory.
and the skull of skeleton II was quickly located at a depth of 80 cm. In the removal of the deposit over the lower part of skeleton II, the disarticulated bones of part of skeleton I were uncovered at a depth of 60-70 cm., together with the skull of skeleton I apparently still in its original burial position and in articulation with several neck vertebrae (Plate 1B). When these parts of skeleton I had been recorded and

**SOUTH SECTION**

**EAST SECTION**

**PLAN**

Fig. 1.—Plan and sections of the Macassan burials at Anuru Bay.
removed the remainder of the under-lying skeleton II was uncovered, recorded and removed. As the outline of the shallow trench of burial I was then apparent in the south section of the excavation, an extension 40 cm. × 50 cm. was opened up and revealed the lower leg bones of skeleton I in position as originally buried.

The excavations reveal the following sequence of events:

**Burial I**: A trench about 1 m. wide, 60–70 cm. deep and long enough to receive an extended body was dug in the beach sand. The corpse was then laid in the trench face downwards with the right side of the body slightly lower than the left and the head about 10 cm. lower than the feet. The body lay approximately N-S with the head at the N end. The grave was then filled with the surrounding sand. The pit is distinguishable from the surrounding undisturbed deposit by the slightly grey colour of the infill derived from the general grey occupation deposit of the site, and by the cut through a band of consolidated beach sand about 20–40 cm. below the surface and a band of more shelly sand about 50 cm. from the surface.

**Burial II**: At some time after the first corpse was reduced to a skeleton, another burial occurred in the same place. The exact duplication of position is probably purely fortuitous, though this particular part of the site may have been thought of as a cemetery area either because of a memory or even some surface evidence of the previous burial, or for some other reason. The trench for the second burial was dug at right angles to the previous trench and is notably narrower and deeper, being about 60 cm. wide and 80 cm. deep. It cut through skeleton I between the neck and the knees, and the intervening bones, or most of them, were put to one side. Since the N side of the pit is both straighter vertically and slightly deeper, the digger seems to have thrown the spoil out to the south. A thin lens of this clean spoil can be seen in the sections at the SE corner of the excavation. The second body was then laid in the trench, lying on its right side with its head to the east. The left arm was laid along the top of the body with the hand bent down in front of the pelvis. The upper part of the right arm lay under the chest and the forearm was bent vertically upwards with the hand falling in towards the body. A row of eight large lumps of the local fine grained red sandstone was placed behind the body. These appear to have filled the remaining "floor area" of the trench and were perhaps intended to protect the body as the remainder of the trench was filled in. As this was done, the bones of skeleton I which had been removed were thrown back into the trench, most of them being piled on the north side of the trench in about the area from which they had been removed. Although the extreme ends of this second burial trench were not excavated and some further bones of skeleton I may remain in the small unexcavated western portion, some major bones, for example the left femur, appear to have been lost at this stage. The grey sandy infill is distinguished in the same way as in the other trench, but also contains some large pieces of standstone and some blocks of consolidated cream sand. On the surface directly over the grave, a solid rectangle about 1.50 m. × 2.10 m., consisting of various sized pieces of sandstone, was built to mark the spot. Originally there may
A. The Anurru Bay graves before excavation, looking east (20 cm. interval staff).

B. The Anurru Bay burials during excavation, looking east. Skull II against the far wall: skull and some of the disturbed bones of skeleton I in the foreground (20 cm. interval staff).

C. Skull I.

D. Skull II.
also have been one or more wooden grave posts as is usual in the Celebes and as recorded for the Winchelsea Island site (see below), but no trace of such a feature or of post holes could be detected.

In the course of excavation, a total of 53 gm. of small earthenware sherds, one small fragment of flat green glass, one other highly patinated fragment of curved glass and 13 gm. of highly oxidized iron were recovered. A small bronze fishhook was also found among the replaced bones of skeleton I. In view of the prevalence of similar artefacts throughout the occupation deposit on the site as a whole, these finds must be regarded as chance intrusions, rather than intentional depositions.

**THE HUMAN MATERIAL**

*Skeleton I (Plate IC)*

Sex: male. Age: 32±4 years. Stature: 5' 7"±1".

It is not surprising there are damaged and missing bones from this skeleton, as the later burial cuts through it. The two undisturbed areas, firstly the cranium, mandible and vertebrae Cr-6, and secondly the lower limbs from the knees downward, are undamaged and in their position as at burial. The disturbed bones were: vertebrae T 2, 9–12, L 1–5, sacrum; ribs R8–11, L9–11; sternum; right clavicle, humerus, radius and ulna; both hands except for two carpals, one interproximal and one distal phalanx; right femur, right innominate. Four phalanges from this skeleton were found mixed with skeleton II and presumably fell from the sides of the grave trench during the interment of the latter individual.

The dentition is

\[
\begin{array}{cc}
5432 & 3457 \\
8765 & 23456 \\
\end{array}
\]

Of the missing teeth 8761 1268 were lost antemortem.

Pathology: There is heavy calculus on all teeth. On the mandibular right molars it thickly coats the occlusual surfaces, due to the absence of the maxillary teeth on this side. Periodontal disease was widespread. Infrabony pockets around the mandibular left first molar had led to total destruction of the buccal plate in the area of this tooth. Loss of two mandibular and five maxillary molars had occurred some years before death. Alveolar resorption in these regions was advanced, more so on the right side. The three absent maxillary incisors had been lost antemortem, probably for several years. There is no evidence of abscess formation in the incisor region.

While not as marked as in specimen II, there is generalized chipping of the teeth. The solitary maxillary incisor present has a deep area of buccal attrition stretching up 7.5 mm. from the incisal edge.

The most anterior 27 mm. of the metopic suture are patent. Immediately above is a roughened area 13 mm. wide, probably the result of an irregularity in suture closure. The remaining course of the metopic is incompletely fused.
Skeleton II (Plate 1D)

Sex: male. Age: 23±3 years. Stature: 5' 4"±1/8".

The remains of this individual are in an excellent state of preservation. The skeleton is complete except for one right and two left carpals, one interproximal and 6 distal phalanges. (The absence of these bones can only be ascribed to failure of recovery at excavation). The dentition lacks only the mandibular left first molar, lost antemortem.

Pathology: This specimen exhibits extensive chronic alveolar pathologies. There is considerable deposition of calculus on all teeth. Thickest in the molar region it fills several interdental spaces and on the maxillary third molars forms a horizontal distal flange almost 3 mm. wide. The supragingival calculus on some teeth clearly defines the gingival margin, continuous with thinner subgingival calculus below it. On a few teeth the two forms of calculus are not demarcated.

It is likely that the chronic periodontitis evident is a result of inflammation due to calculus. Most advanced in the premolar-molar regions of both jaws alveolar resorption has resulted in numerous infra-bony pockets, particularly along the buccal and interdental margins of the maxillary molars. Only a single tooth, the mandibular left first molar, had been lost; complete healing of the alveolar bone in this case indicated tooth loss at least 12 months antemortem. Three other mandibular teeth, the left lateral incisor and both second premolars, were probably very near to exfoliation because of root exposure through severe periodontitis. There is no evidence of periapical involvement in the premolar-molar regions.

Pathology of another kind is seen in the maxillary incisors and canines, associated with an unusual attritional pattern. While the mandibular incisors and canines are little worn, with only the slightest traces of dentine exposure, their maxillary opponents are very heavily worn. Wear had proceeded in several planes in all directions and only 2·5–5 mm. of crown remained. Severe chipping also removed some enamel and there was relatively marked interproximal attrition. Root exposure was extensive, both buccally and linguually. All maxillary incisors and canines exhibited pulp exposure and apical abscesses.

The abscesses had resulted in perforation of the buccal cortical plate over the central incisors and left canine, and palatal perforation over the left lateral incisor. The left canine abscess was 6·5 mm. wide and more than 10 mm. deep, with 8 mm. of the root visible.

There is black staining of the posterior calculus deposits. This is almost certainly due to betel nut.

The skeletons are lodged in the collection of the Anatomy Department, University of Sydney. The code numbers are: Specimen I (ADUS 223); Specimen II (ADUS 222).
TWO MACASSAN BURIALS IN ARNHEM LAND

DISCUSSION

The location of the two burials in immediate proximity to an extensive trepanging site suggests that the skeletons are most probably those of members of the crews of the trepanging fleet. Furthermore, after laboratory examination Thorne sees no reason, on morphological grounds, to doubt that both skeletons are Macassan. The severe attrition of the maxillary incisors and canines of skeleton II and of the solitary maxillary incisor of skeleton I may well be attributed to the practice of filing the teeth for adornment and as part of an age-grading ritual. Kennedy (1953: 74, 78, 134–5, 171, 194, 218) has recorded this in the Macassarese-Buginese and Sadang cultural areas in the south Celebes, though the practice is widespread throughout the archipelago. Kennedy notes that the filing is restricted to the “upper teeth” (78) and the process may account for chipping. “It is done with a stone. First they saw a little with a metal saw in the rear of the teeth” (134). An example of Kennedy’s “tell-tale evenness of the upper front teeth” (194) is pictured by Collins (1937: top right opposite 33). The use of betel nut to account for the staining of the posterior calculus deposits on the teeth of skeleton I is specifically recorded for the Macassans in Australia (Cunningham 1818: 375; Seary 1907: 26–7). The method of burial also accords reasonably well with what might be expected from normal Macassarese-Buginese practice. It is certainly radically different from any variant of Aboriginal practice.

In 1948 McCarthy and Setzler (1960: 220–3 and plate 1) excavated on Winchelsea Island a group of graves, which they suggested were Macassan. It is notable that the disposition of the three skeletons recovered accords remarkably well with that of skeleton II at Anuru Bay. The main differences between the burials at the two sites seem to be that the three individuals buried on Winchelsea Island were all considerably older at death, that the arrangement of stones on the surface was slightly different and it is almost certain that the graves with grave posts pictured by Tindale (1925–8: 131 and 109, Fig. 53) were those excavated in 1948. There can be little doubt that the Winchelsea Island burials formed a cemetery and were not juxtaposed by chance.

It is extremely difficult to suggest a precise date for either burial at Anuru Bay, even if it is assumed the burials are contemporary with the associated processing site. The processing site was probably used repeatedly and certainly visited at least twice in view of the two burials. The single carbon date for the site that has so far been obtained (Modern or \(125 \pm 57\) B.P.—ANU-61) confirms the general estimate of the period of the industry as obtained from historical sources. The burials therefore could have occurred at any time during the eighteenth or nineteenth centuries.

There is no evidence to suggest a cause of death for either individual. However, considering the large number of men engaged in the industry and the extremely

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*Site 30a in Macknight’s gazetteer. Note that Cense (1952: 263) has recorded an ethnographic account of a Macassan burial at what is probably this site. As the interred individual was the informant’s father, this burial can be dated very approximately to the last forty years or so of the industry, i.e., c. 1860–1907.*
arduous conditions, it is hardly surprising that some deaths occurred. In addition, there is evidence for conflict with Aborigines, occasionally fatal.*

ACKNOWLEDGEMENTS

The writers thank Mr. Jim Allen and Mr. Stephen Nayandili who assisted with the excavation, and are grateful for the advice of Mr. D. J. Mulvaney, Mr. B. C. W. Barker and Mr. Allen in the preparation of the paper. Photography of the skulls by Mr. G. L. Williams, Department of Anatomy, University of Sydney.

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C. C. MACKNIGHT,
A. G. THORNE.

* Another site which may have a similar grave awaiting excavation is on an island in Raffles Bay (Macknight Site 50). It is probable that further graves also exist around the coast.
ABORIGINAL STONE PICTURES IN EASTERN ARNHEM LAND

C. C. MACKNIGHT W. J. GRAY

AUSTRALIAN INSTITUTE OF ABORIGINAL STUDIES
ABORIGINAL STONE PICTURES
IN EASTERN ARNHEM LAND
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PREHISTORY AND MATERIAL CULTURE SERIES No. 6

FRONTISPIECE

Wurrncurraruwai. General view looking south-east over Dalywol Bay
to Cape Arnhem. Features 19 to 27 are visible in front of the
ranging pole.
ACKNOWLEDGEMENTS

Our chief debt at Yirrkala is to our two main informants, Mun-garrawuy and Mawalan, for their interest, co-operation and enjoyable company. We would also like to thank the many members of the mission and Administration staffs who assisted in various ways. On Elcho Island, Macknight would like to thank Barmyurnyur, and Frank Giluru and his fishing crew. The Rev. H. U. Shepherdson and Mr. C. Gullick made the trip to Hardy Island possible. In Canberra, Mr. W. R. Ambrose and Mrs. E. R. Wilkie helped with photographic work; Miss W. Mumford drew figure 1 and Mrs. L. White typed the manuscript. Miss Beulah Lowe of Milingimbi kindly checked a number of points of information for us. Finally we wish to thank Mr. E. C. Evans and Mr. D. J. Mulvaney for their advice and much other assistance.

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INTRODUCTION

This report describes and discusses two sites in eastern Arnhem Land where stones have been arranged on the ground to form pictures of identifiable subjects. Though many other stone arrangements are known from elsewhere in Australia, the pictorial nature of the features described here is unique, and justifies the use of the term stone pictures.

At the time of going to print, action was in hand to proclaim the Wurrarrawoi Site as a Prescribed Area within the meaning of the Native and Historical Objects and Areas Preservation Ordinance 1955-60.

Under the provisions of the Ordinance, a person may enter a prescribed area but may not commit any offence against the Ordinance. Such offences include wilfully or negligently defacing, damaging, uncovering, exposing, excavating or otherwise interfering with places such as the site of the stone pictures.

Conviction for an offence against the Ordinance is punishable by a fine of up to $200 or imprisonment for a period not exceeding three months.

Rangers are to be appointed to police the provisions of the Ordinance in respect of these and other sites on the Gove Peninsula.

The orthography of Aboriginal words has presented many problems. In general we have tried to be consistent except for those words derived from Macassarese where some memory of the phonetic distinctions of that language may remain.

The case for referring to Macassarese as the source of these words is set out by Macknight (1969b). Information on Macassarese is derived from the dictionary of Matthes (1859), though we have used a more modern orthography.

The large staff in the photographs is painted in 20 cm. sections: the smaller scales show 1 cm. and 10 cm. divisions.
THE WURRAWURRAWOII SITE

The site was first pointed out in June 1966 to Mr. E. C. Evans and Gray by Mun-gurrrawyi, during the course of a survey of sacred sites in the Gove Peninsula area. (Evans 1966) This particular site however has no sacred significance, and on that occasion was only visited briefly and not fully explored. In October 1966, Mr. and Mrs. M. Bray of Yirrkala visited the area and found several more features. In June 1967, both authors spent several days recording the information published here.

The site is situated on an open rocky shelf, about 400 metres square, projecting into the sea, about six miles south sou’east of Yirrkala in north-east Arnhem Land. (Map Reference: Gove 1:250,000 SD53-4, 511.423. Lat. 12 deg. 20’ 30” S; Long. 136 deg. 56’ 0” E.) (Fig. 1) On the north, the area is bounded by a creek bed running on to a sandy beach around the southern end of a large coastal sand dune; on the west, by a 50-metre-wide strip of dense coastal jungle growing on a sand dune, which overlies the rock shelf and runs parallel with the general line of the coast. On the south and east, the shelf ends directly in the sea, without any beach, and there is an impressive view out to sea and across Dalywai Bay to Cape Arnhem. The shelf consists of a hard, brown, spherulitic ironstone and some bauxite. The rock has weathered at the surface to pebbles in a wide range of sizes, though larger blocks also occur. All stones used in the construction of the pictures appear to have been obtained in the immediate vicinity.

The general vegetation on the shelf is low grass and stunted scrub, becoming rather higher farther back from the sea. This pattern of vegetation can probably be attributed to the fierce south-east monsoon blowing in across the Gulf of Carpentaria during the dry season. The effects of this wind
are apparent in the sand dunes and patterns of vegetation right along this south-east-facing coast.

The stone pictures extend over an area approximately 80 metres by 70 metres, with a few less important outlying features. (Fig. 3) This area is near the centre of the shelf, and on the edge of the larger vegetation.

Evans and Gray were told by Mun-gurrarway that the name of the site was Wurrawurrawoi, though there is some doubt as to whether this may not refer more exactly to the adjacent coast, where there is a sacred site, a small blow-hole associated with the Whale myth. Berndt (1964:277 no. 73) has also recorded the name from a group of informants, including Mun-gurrarway, in the same location, but says that it is “referring to the trepay of the Baini dying, and the wongar north wind blowing”. Whatever the precise connotations of the name, there does not appear to be a more convenient one for the site, and it will be adopted here for purposes of reference.

Our two main informants for the oral tradition concerning the site were Mun-gurrarway and Mawalan. Both men had a particular interest in the site, but for different reasons.

In the remembered past, the area around Dalywil Bay had been the territory of the Lamomirri clan (mala). (cf. Warner 1937 (1964:40)) This clan has now been reduced to only two women, who live a considerable distance away at Elcho Island mission. On the death of the last Lamomirri man, or possibly before, the area was taken into custody of the neighbouring Gumarj clan (1)

The other main clan in the vicinity, the Galbu, has mostly moved to the Elcho Island area. As the recognized leader of the Gumarj, Mun-gurrarway had thus the best claim to ownership, or at least guardianship of the site.

Mawalan on the other hand, who is a member of the Rirratjingu clan, was related to the father and son, Yumbulul and Dhatalamirri, who are reputed to have created the stone pictures. (Fig. 2) One wife of Mawalan’s father, and thus Mawalan’s classificatory mother, was the daughter of Dhatalamirri. Mawalan therefore regarded Yumbulul as his classificatory mother’s father’s father, and more specifically, he regarded Dhatalamirri as nati or mother’s father.

In addition to their direct associations with the site, both men were recognized as particularly knowledgeable in all aspects of tradition, and they have acted as informants for many ethnographers on various subjects. Their familiarity with matters concerning the Macassans, whose material culture provides a large part of the subjects represented, is attested by the bark paintings of both men, and by the mass of detailed information on this
subject given to Macknight and others. (2) Furthermore, there seems to have been a genuine desire to give as much information as possible about the site, so that on a number of occasions, our informants had discussions with other men to determine the most precise use of words relating to items depicted. It is difficult to determine the exact age of either informant, but probably they were both young boys when the last trepanning prau from Macassar visited the area in 1907. Possibly however, their knowledge derives as much, or more, from older Aborigines as from any personal observations. Mun-gurrrawy's father, for example, had actually been to Macassar. (Mountford 1956: 292-3) Mawalan died in November 1967.

When the authors arrived on the site in June 1967, the grass from the previous wet season had dried off, but was still obscuring many stones. This light covering of grass was burnt off before work began. A base line was then laid out through the datum point and a 10 metre grid constructed from that with compass and tapes, and strings laid down between relevant pegs. This served as a basis for drawing the plans on to squared paper, with more accurate measurement where appropriate. The site was then extensively photographed. At this stage, Mun-gurrrawy and Mawalan arrived, and together they provided the information recorded below, dealing with each feature individually. Gray recorded this on the spot, and subsequently confirmed various details at Yirkala with the aid of photographs.

The following comments on each feature are divided into two parts. The first is what was apparent to the authors; the second is information supplied by Mun-gurrrawy and Mawalan, with some explanatory remarks in brackets.

1. (a) A roughly circular arrangement, 1.2 m. in diameter, with an opening 20cm. wide facing SE.
   (b) A house used by the leader or leaders, *bunggawa*, of the Macassans. It is called *bunmandara* and made from woven bamboo leaves called *katja*. (*Bunmandara* may be derived from the Macassarese *pangandara* 'with the basic meaning of bamboo lathes in either the floor or roof of a building, *Bunggawa* is from the Macassarese *punggawa* meaning a leader, or a captain of a ship. *Katja* is from *kadjang* meaning palm leaf mats.)

2. (a) A large lenticular outline, 10 m. long. Many gaps in the line, particularly at S end.
   (b) A small boat called *balari*, with a tripod mast of bamboo. (*Palari* in Macassarese means runner or racer, and the term is applied to a type of prau. It has, in fact, a tripod mast of bamboo. See Plate XVII.)
3. (a) A broken oval outline, 5 m. long. Possibly disturbed. See Plate II.
   (b) A small boat or canoe called lipalipa or balakangu. (Lipalipa is
       from the Macassarese lepa-lepa meaning dug-out canoe. See Plate
       XVII. Balakangu may be the pre-Macassan term for a canoe.)

4. (a) A circle 3 m. in diameter, with an opening 40 cms. wide facing
     NNW. Opposite this is a large stone set inside the circle, 40 cms.
     from the circumference.
   (b) Bumandanu. (See 1 b.) Mun-gurrawuy suggests that this is more
       probably a structure where dry trepang was hung and stored, and
       not a house where people lived.

5. (a) A vague arrangement forming no particular pattern. Certainly not
     natural.
   (b) Danambalu or darring. A place where the wet trepang was cooked.
       (Danambalu may be derived from the Macassarese tana meaning
       land and pullu meaning cooking, thus the whole meaning cooking
       place. Darring is from the Macassarese taring meaning cooking
       stones, particularly an arrangement of three. It is possible that
       these terms were used to refer to the lines of stone fireplaces
       found on Macassan preparation sites and illustrated by features
       35-8, but this feature does not appear to be such a line and the
       terms were not recorded for the later features.)

6. (a) A very vague arrangement. Probably not natural.
   (b) As for 5 b. There are places for two cauldrons, called gauna. (Gauna
       is from the Macassarese kasa meaning iron cauldron, especially
       used for cooking trepang. The mention of gauna for this feature
       helps slightly the interpretation of the two words in 5 b as
       meaning stone fireplaces.)

7. (a) A roughly rectangular arrangement, 1.2 m. by 1 m.
   (b) Perhaps a place for storing cut wood.

8. (a) A very vague scatter. Probably natural or accidental.
   (b) No information.

9. (a) A lenticular outline, 5 m. long. Very incomplete.
   (b) Balakangu. (See 3 b.) Mun-gurrawuy here distinguished between a
       larger canoe, balakangu, and a smaller version, lipalipa. (See 10 b
       and 11 b.)

10. (a) An oval outline 5 m. long, in stones of a fairly uniform size. An
      intentional opening on the SE side. Overgrown by a substantial
      bush on the NW side. See Plate VIII.
   (b) Lipalipa. (See 3 b and 9 b.)
Figure 3. Warrawarraroi. Layout of features
11. (a) A roughly oval arrangement, very vague and incomplete. Overgrown by a large bush.
   (b) Lipalipa. (See 3 b and 9 b.)

12. (a) An excellently preserved picture, clearly recognizable as a prau. Carefully executed in small stones except for the rudder and one line across the middle in large stones. See Plate II and Fig. 4. Another view is shown in Macknight 1969c:6 and Mulvaney 1969: Plate 13.
   (b) A prau.

A. Boku, no meaning collected. (This is probably from the Macassarese bokku' meaning the deck of bamboo and palm leaf mats at the stern of a prau.)
B. Djulumba, the captain's quarters. (The word appears to be from the Macassarese sulompong meaning the fore part of a prau. It would seem to be misapplied here, unless it is only used in distinction to the bokku' or small poop on the stern. However the captain's cabin was usually on the bokku' and not farther forward.)
C. Gosali, the rudder. (From the Macassarese gading meaning a rudder.)
D. Bando, cabins for members of the crew. (From the Macassarese pondo' meaning a captain's cabin, particularly on a type of prau known as a banawa, but also on other types. The term seems to be used here loosely to mean any cabin.)
E. Bonggosus, that is, the accommodation provided for the banggosus. (See 1b.) Despite the meaning of the Macassarese word from which this term is derived, our informants were emphatic that the banggosus was not the captain of the prau. However the exact distinction in their minds is not clear to us.
F. Galley.
G. Fireplace.
H. Food Store.
I. Tank.
J. Wadjung, no meaning collected. (This is clearly the Macassarese awhjong meaning bowsprit.)

Figure 5. Sketch of feature 12
13. (a) A small arrangement in small stones of no apparent design. See Fig. 4.
   (b) A Macassan house with two rooms.

14. (a) One half of a lenticular outline, open to the NW.
   (b) Lipalipa. (See 3 b and 9 b.)

15. (a) A carefully executed picture in stones of a uniform size. Possibly slightly disturbed. See Plate XI and Fig. 4.
   (b) A Macassan house with eight rooms.

16. (a) A scattered, roughly oval arrangement of stones of about uniform size. Possibly considerably disturbed or incomplete.
   (b) A Macassan house.

17. (a) A vague arrangement with parts of an oval outline and chords within. Possibly incomplete.
   (b) A Macassan house.

18. (a) A carefully executed and well preserved picture. See Plate VII and Fig. 4.
   (b) A Macassan house with five rooms. (There appear to be more than five compartments.)

19. (a) Several stones placed together.
   (b) Stones used for sharpening, particularly the knives of men working the trepang. The stones are referred to as kandhiji meaning sharp. (This word is probably Aboriginal.)

20. (a) A large arrangement, possibly meant to be an oval with chords. Very incomplete.
   (b) A Macassan house.

21. (a) About nine stones placed together in a tight figure eight.
   (b) Kandhiji stones. (See 19 b.)

22. (a) A small T shaped arrangement.
   (b) Kandhiji stones. (See 19 b.)

23. (a) A well preserved picture. Possibly slightly incomplete. See Plate X and Fig. 6.
   (b) Bumandara, a house used by a bunggara. (See 1 b.)

24. (a) A vague arrangement, possibly an oval with chords, but very incomplete. See Fig. 6.
   (b) Probably part of a canoe.
ABORIGINAL STONE PICTURES

25. (a) A complex and carefully executed picture. Stones of two distinct sizes have been used. Generally well preserved, but there may have been some disturbance in the W corner. See Plate III and Fig. 6.
(b) A prau.

![Figure 7. Sketch of feature 25](image)

A. Bandaq, crew quarters. (See 12 b, D.)
B. Water Tank.
C. Eating place.
D. Galley.
E. Store.

26. (a) A complex and striking picture, carefully executed in stones of various sizes. Possibly slightly disturbed or incomplete on the SW side. See Plate IV and Fig. 6.
(b) A prau.

![Figure 8. Sketch of feature 26](image)

A. Bandaq (See 12 b, D.)
B. Galley and store.
C. Balaq, the mast. (From the Macassarese palayaran meaning mast.)
D. Bukana, the sail or rigging. (From the Macassarese pukno which is the rope fixed to the lower end of a prau's great rectangular sail.)

PLATE III Warrawarrawoi. Feature 25, looking east

PLATE IV Warrawarrawoi. Feature 26, looking east
PLATE V  Warrawaruoi. Feature 35, looking north

PLATE VI  Warrawaruoi. Feature 35, looking north-west. Feature 38 can be seen behind

PLATE VII  Warrawaruoi. Feature 10, looking south

PLATE VIII  Warrawaruoi. Mun-gurrway inspecting feature 10
Our informants displayed great interest in this feature and volunteered some additional information concerning praus. Mun-gurrrawuy described the two rudders on either side of the stern of the prau and said that the one, gawli (see 12 b, C), was manned by a crew member, the other called djerrjindi, by the captain. In this he appears to be wrong, as the last term is clearly from the Macassarese djuru-nudi meaning a steersman. Both informants also mentioned two men detailed to look after the sails. The terms given in connection with this were djurawatu ruwa, but their exact significance was not made clear. The second word is clearly the Macassarese ruwa meaning two. The first word may be a combination of djuru meaning a man in charge, and uattu meaning time. The entire phrase would then mean the two men on watch duty. Alternatively, djurawatu could be a corruption of djuru-batu. In addition to his functions of sounding and lookout as mentioned by Matthes, this crew man was in charge of the anchor and rigging. (Toking 1961: 151-2) However it is then unclear why there should be two such men.

27. (a) A few stones dispersed in no apparent pattern. Certainly not natural.
   (b) A line of stone fireplaces with places for three cauldrons, called gaua. (See 5 b and 6 b.)

28. (a) A small collection of stones of various sizes.
   (b) Sharpening stones. (See 19 b.)

29. (a) A small collection of stones of various sizes.
   (b) A prau, balari. (See 2 b.) This is said to have three masts (possibly a tripod mast) and four sails. (The interpretation seems remarkably imaginative.)

30. (a) A small heap of several large stones.
   (b) Sharpening stones. (See 19 b.)

31. (a) A small heap of several large stones, with three rows of smaller stones projecting to the W.
   (b) Sharpening stones. (See 19 b.)

32. (a) A vague arrangement of stones of different sizes.
   (b) An Aboriginal dwelling, and not a Macassan one. Mun-gurrrawuy though this feature might be the work of a child.
33. (a) A large, irregular circle, 5 m. in diameter, with a gap 1 m. wide facing E. There is a pile of large stones a little SW of centre. All well preserved. See Plate V and Fig. 9.

(b) A type of fish trap called *dhawurryin*. (The word appears to be Aboriginal.) This type of trap was originally used by a man, named Djul-djul, who lived in and around the Wessel Islands. A direct descendant of his, called Monyu, now lives on Elcho Island and is the recognized leader of the Galbu clan. (The authors know of no actual fish trap similar to this in the Gove Peninsula area.)

34. (a) Three large stones. See Fig. 9.

(b) Sharpening stones. (See 19 b.)

35. (a) Three clear bays facing SE. The stones have been piled together rather than set in single lines. See Plate VI and Fig. 9.

(b) A line of stone fireplaces with places for three cauldrons, called *gawa*. (See 5 b and 6 b.)

36. (a) A small pile of large stones with several rows of smaller stones. See Fig. 9.

(b) A line of stone fireplaces. (See 5 b.)

37. (a) A long pile of stones with three or four bays facing SE. Behind this, an oval outline. All well preserved. See Plate IX and Fig. 9.

(b) A large line of stone fireplaces with places for five cauldrons, called *gawa*. (See 5 b and 6 b.)

38. (a) Three bays facing SSE. Not as substantial as feature 35. See Fig.

(b) A line of stone fireplaces with places for three cauldrons, called *gawa*. (See 5 b and 6 b.) Some of these smaller lines of fireplaces may have been used by Aborigines, while the Macassans used larger ones such as feature 37. (From contemporary descriptions, this distinction made by our informants seems unlikely.)

39. (a) A vague outline possibly of two ovals.

(b) A house where wood was cut and stored.

40. (a) A circle, 70 cm. in diameter.

(b) No information.

41. (a) A circle, 30 cm. in diameter.

(b) Aboriginal living quarters. Mun-gurrawuy thought it was a house for a married man.
42. (a) A circle, 20 cm. in diameter.
   (b) No information.
43. (a) A circle, 30 cm. in diameter.
   (b) No information.
44. (a) A rough circle of large stones, about 2 m. in diameter.
   (b) See 45 b.
45. (a) A rough circle of large stones, about 3 m. in diameter.
   (b) (Including 44.) A representation of the camp of an Aboriginal
group. The area on which the camp was built is located on the
north point of Dalywoi Bay and is called Barramburru.

The name of the earliest man associated with the site is Yumbulul, who,
perhaps with some of his fellow clansmen, is reputed to have made the first
pictures. From the genealogy set out in Fig. 2, this could hardly have been
before 1800 A.D. and was probably closer to 1850. His second son,
Dhatalamirri, to whom the site was entrusted, is also supposed to have made
some further pictures at a later date. Particular efforts were made to discover
from our informants whether there was any possibility of more recent
disturbance or additions. While they were quite sure of the comparative age
of most of the features, it is possible that some disturbance, perhaps even
some minor features such as feature 32, are the result of children playing in
the area during recent times. It must be stressed however that the major
features are certainly not the work of children. The discovery of a second
site on Hardy Island, even though it is much less impressive, helps to confirm
the authenticity of the tradition relating to the Wurrawurrawoi site.

Another possible source of disturbance may be the buffalo, considerable
numbers of which have recently penetrated into the area. A well marked pad,
which is also used by passing Aborigines, runs across the site and there
were several instances of minor damage where the hoof mark of a buffalo
was still visible. There does not appear to have been any great damage
to the site as yet, though its vulnerability to such interference should
be noted for its future protection.

In general, the present appearance of the site is fully consistent with
the tradition relating to it. The only indication of some slight antiquity is
the growth of shrubs and other vegetation over several features, but a century
would be a very generous allowance of time to account for this. It is no
easier to determine the earliest date that any feature may have been
constructed. However Aborigines cannot have been familiar with the items
depicted before the Macassans came to Australia. There is documentary
evidence for this from the mid-eighteenth century, though archaeological
evidence suggests that the industry may have been in operation somewhat
earlier. This of course does not imply any comparable age for this site.
ABORIGINAL STONE PICTURES

The features on the site fall into four groups distinguished by subject, style and position.

The first is made up of features 1 to 11, and probably feature 14. These are clustered towards the south end of the main area of the site, and depict boats, mainly canoes, and various constructions associated with the Macassans. From the identifications of features 1 to 7 and 9 to 11 supplied by our informants, it is possible to build up a picture of a complete Macassan trepanning site. A prau (2) and a canoe (3) are riding at anchor or drawn up on the shore. Other canoes (9, 10, 11) are out gathering the trepang. Behind the beach there are two lines of stone fireplaces (5, 6) with a stack of firewood nearby (7), while farther back is a smokehouse or at least a trepang store (4) and a hut for the man in charge (1). However, as most of the features are poorly preserved, and probably only existed in outline to begin with, there might be some suspicion of a little rationalization in our informants’ interpretations.

To the north, features 12, 13 and 15 to 27 with perhaps 14 form another group. The subjects are similar to those in the first group, but the style is very different. These pictures are executed much more carefully in fairly small stones, and all major features in the group have interior lines in the design as well as an outline. In features 12 and 25, stones of various sizes have been used to create lines of different weight. However feature 12 and features 25 and 26 differ in their style of representing a prau, as discussed below.

The group to the west, features 28 to 39, is mainly distinguished by the fact that most subjects are modelled. That is, the stones are piled together rather than arranged in lines, though the oval outline behind feature 37 is an exception. The main subjects represented are stone fireplaces, sharpening stones and a fish trap.

The last group consists of the outlying features 40 to 45. These are all rather simple, and although little information was collected about them, they seem to have specifically Aboriginal, rather than Macassan associations. Some similarities however can be seen between features 44 and 45, and some features in the southern and western groups.

It is tentatively suggested that these groups correspond with the work of various men at different times. If this is so, the southern group, on the doubtful grounds of poor preservation and lack of elaboration, may precede at least the northern and western groups.

Two small fragments of glass were also found on the site. They are very similar to many other stray fragments found all around this part of the coast and no significance can be attached to them. One is a very small curved green fragment and the other a moulded clear one. Both are probably nineteenth or twentieth century in date.

THE HARDY ISLAND SITE

This site was discovered by chance as Macknight and a companion from Elcho Island mission, Barrnyurnyr, were looking for Macassan sites in June 1967, a few weeks after the recording of the Wurrrawarrawoi site. The site is situated on Hardy Island, a small island some 3 miles by 1 mile in extent on the west side of Arnhem Bay. (Fig. 1) The south-east shore of the island is exposed to the south-east monsoon blowing over nearly twenty miles of open water, and apart from one sandy cove, is extremely rocky. At the north-east end of this cove, a small peninsula projects southwards and the site is located on the seaward side of this. (Map reference: Arnhem Bay 1:250,000 SD53-3, 408,429. Lat. 12 deg. 18′ 0″ S; Long. 136 deg. 4′ 0″ E.) At high tide, the sea completely covers a few patches of sand and beats directly against the base of a small rocky cliff about 5 m. high, and facing south-east. Behind this there is a shelf up to 15 m. wide and devoid of vegetation, then a steep slope or cliff some 1 m. to 2 m. high and a further flat area with stunted vegetation running back about 30 m. to where the higher scrub begins. The surface is composed of hard, brown ironstone and pebbles weathered from it. (Plate XII)

The main part of the site, area A, has features on both the lower and upper levels. (Fig. 10) About 150 m. to the north-east, where the coast projects to form a small point, the few features of area B are found on the upper level.

Unfortunately it was only possible to spend a short time recording the site with minimal equipment. The plans therefore are no more than sketches, though the individual features have been checked against photographs. A brief search failed to reveal any additional features nearby.
Figure 10. Hardy Island. Layout of features

PLATE XII
Hardy Island. General view looking north-east. The lower level of area A can be seen in the foreground. Area B is located on the point behind.

PLATE XIII
Hardy Island. View of upper level of area A, looking south. Feature 12 can be seen in foreground, feature 13 behind Barrnurnyur and feature 16 behind that.
THE HARDY ISLAND SITE

Area A

1. A ring of 4 large stones. Diameter 60 cm.
3. A very vague arrangement of stones, about 1.5 m. by 0.5 m., that might have been a row of bays. See Plate XV.
4. A collection of several stones in no apparent pattern.
5. A row of about 7 semicircular bays, open to the W and arranged in a curve.
6. 5 small stones placed together.
7. A rather vague line of small stones, probably a series of semicircular bays facing W.
8. A line of 4 or 5 semicircular bays in small stones, and facing W.
9. 4 stones, possibly natural.
10. 4 stones arranged in an L shape.
11. A ring of 7 small stones. Diameter 40 cm.
12. A line of 8 or 9 semicircular bays facing WNW. The N end of the line curves around slightly. A very obvious feature. See Plate XIII.
13. A line of 8 semicircular bays facing SSW. A very well preserved and obvious feature. There is a slight build-up of pebbles behind the bays, but this is probably the result of natural agencies. See Plates XIII and XVI.
15. 3 stones, possibly natural.
16. A small cairn of large rocks. See Plate XIII.

Area B

17. A line of stones, with 4 rows of stones projecting SE at right angles. Probably intended as a line of bays. See Plate XIV.
19. A very vague scatter of stones. Probably a line of bays facing NW.

The only Aborigine to see the site on this occasion was Barrnyunnyur, and he was not previously aware of its existence. He did however suggest the name Dawaruku for this part of Hardy Island. Although no men actually associated with this particular area were questioned, the site is certainly not widely known. No signs of any recent visits were observed in the vicinity, though parties of Aborigines still occasionally camp on the other side of the island. It would seem that the site has no sacred significance.
ABORIGINAL STONE PICTURES

There is even less evidence as to a date for the construction of the features than at Wurrarrawoi. However the vegetation covering a number of features and the general appearance of the area suggest that at the very least several decades, and probably much more, are involved.

Though it is risky to interpret any of the Hardy Island features on the basis of information from Wurrarrawoi, there can be little doubt that many of the features here are meant to be copies of the Macassan lines of stone fireplaces for boiling trepang. The most obvious are features 5, 8, 12 and 13. Features 3, 7, 17, 18 and 19 are further possible examples. It is to be noted that in some of these features, such as feature 13, the fireplaces are represented by distinct semicircular arrangements, and not walls forming open squares as in the examples, such as feature 37, at Wurrarrawoi. (See Plate XVI.) Both styles are found on Macassan sites.

DISCUSSION

The similarities in the situation and nature of the two sites described here suggest very strongly that they are related. Furthermore, both sites appear to be the result of local Aboriginal activity. The subjects depicted show that they are certainly not European in origin. Nor are they variations of the common Macassan trepang sites. Even the copies of the stone fireplaces are generally smaller and less massive than Macassan fireplaces, and both sites are in totally unsuitable situations for Macassan trepang activity. Neither do they display any of the other usual features of Macassan preparation sites, such as abundant charcoal and ash, a scatter of pottery, and smokehouse depressions. Both sites are also too far away from Macassan sites for there to be any direct association. The nearest such site to Wurrarrawoi is about a mile south on the other side of the entrance to Dalywoi creek. (Macknight 1969b: site 24e) On Hardy Island, there are several sites about a mile away on the other side of the island. (Macknight 1969b: sites 20 b, c, d) However the most positive evidence for the construction of the pictures by Aborigines is in their general stylistic similarities with other forms of Aboriginal expression. This raises the question of how these pictures relate to other aspects of the local culture.

There are, of course, many other Aboriginal stone arrangements known in all parts of Australia. It is clear though, in all cases where any traditional information as to the meaning of other sites is available (and from the appearance of sites where this is not available, it would also seem to be true for them), that the arrangements have a purely symbolic meaning. The sites reported here are unique in that the features actually depict the subjects they represent. In most of the larger features, the subject is obvious to any
observer, particularly to one familiar with the conventions used in other art forms in the area. Even with the minor or disturbed features, it is usually possible to see an outline, or at least a suggestion of the subject suggested by our informants.

The difference between symbolic stone arrangements and the stone pictures can easily be seen by comparing these sites with the nearest symbolic arrangements of which there is a published record. McCarthy (1953a; 1953b) has described various arrangements of boulders and stone slabs on Groote Eylandt with their mythical associations. Simple piles of stones or upright slabs symbolize pieces of a mythical stingray figure together with the men who ate them, and other similar figures. On another site, the same sort of arrangements relate to a mythical snake woman and her activities. Various parallel lines of stones represent a pathway she followed.

Although the sites described here are exceptional in our present state of knowledge, there are probably others as yet unrecorded. The only reference to what might be a similar site is by Bartram (1967).(4) Probably on Marchinbar Island or nearby in the Wessel islands, she was told of a “huge flat rock where long ago Aborigines had made rock sculptures. By skillfully placing small rocks they had outlined the shape of a 50 ft. crocodile, and filled it in with more rocks. They had used tiny pebbles to make the shape of fish.” Djingilul, an old man from the Wessel Islands now living at Elcho Island mission and a good informant, also maintains that such stone picture sites exist in the islands. It is relevant to note that much of the coast between Elcho Island and the Gove Peninsula is rocky and exposed, similar to that where the two sites reported here are located, and that it is rarely visited.

The idea of pictorial representation in this manner is only a small step from various other techniques employed by local Aborigines. There is no published account of a symbolic stone arrangement in eastern Arnhem Land, but Mr. John Rudder has told us that some lines of stones were found in late 1967 near the Yirkala school, which may be such an arrangement. Further east on the mainland opposite Milingimbi, Mr. Nicolas Peterson has seen a large arrangement relating to a kangaroo. Outside eastern Arnhem Land, there are the arrangements referred to above on Groote Eylandt (and there are further ones there as well), and Mr. Robert Edwards has recently recorded several in south-west Arnhem Land and adjacent areas.(5)

More important comparisons however are with other forms of pictorial art in eastern Arnhem Land. The subjects of praus and canoes are fairly common in bark paintings, although there are important differences in representation from those at Wurrarawarawoi. (See below.) There are also examples of buildings shown in bark paintings (e.g. Mountford 1956:337 D, 338), though the representation is very different from that in stone. There do not seem to be any examples of trepang fireplaces or fish traps represented in bark paintings.

The only cave painting site known in eastern Arnhem Land has been recorded by McCarthy (1960:384-7), but there are no relevant subjects depicted. It is interesting however that praus and canoes are commonly shown in the cave paintings on Groote Eylandt.

There are various forms of ground drawing found in the area. Perhaps the most relevant are the ceremonial sand pictures of totems. For example, Thomson (1949:60-1 and plate opp. 62) describes and illustrates a representation of a prau, though again the distinct style should be noted. Mountford (1956:288 C, D, 404) has recorded a few examples of drawings by children on wet sandy beaches. Such sketches can still be seen on almost any day around a settlement. It is unlikely however that children were responsible for the “life-size representations of the dugong, sharks and crocodiles, also a lugger in sail”, that were seen scooped in the sand on “North Wessel Island” (probably Marchinbar Island) by Barrett. (Barrett and Croll 1943:71 with plate; see also Barrett 1940.) Warner (1937 1964:138) records how for magical purposes connected with a revenge expedition, an old man “draws the likeness of [the man to be killed] on the earth or moulds it on the ground with his hands”.

The conclusion to be drawn from these comparisons is that although the technique of making stone pictures is compatible with the background of other forms of art in the region, it is a distinct, and previously unrecognized medium of expression. Furthermore, there are a number of subjects, particularly the stone fireplaces, fish trap and sharpening stones, not otherwise represented, and several others, such as praus, canoes and houses, depicted rather differently from elsewhere.

The praus are particularly interesting as they provide the best opportunity to compare diverse representations of a rather complex subject in various media. Furthermore we know with some accuracy what the original subject looked like. A model of one of the types of prau that came to Australia is pictured in Plate XVII, and Matthes (1865: Plates 16, 17), from whom this example is taken, illustrates several other types. The best illustrations of praus actually off the Australian coast are by Westall (Perry and Simpson 1962: Plates 109, 110), by King (1818, reproduced in Macknight 1969c:10), by Le Breton (Dumont d’Urville 1846: Plate 114, reproduced by Mulvaney 1969: Plate 2) and by Owen Stanley (reproduced in Macknight 1969a:opp.155.) Although there are slight differences between all these praus, features such as the fairly high stern, the tripod mast, the large rectangular sails, the double rudders and the general system of rigging are common to all.
Aboriginal representations of praus select varying features to be shown. Thus a bark painting by Mawalan (Plate XVIII), includes the tripod mast (as in feature 26 and as perhaps intended in feature 25 at Wurrawurravoi) and the rudders (one of which is shown in feature 12 at Wurrawurravoi), but ignores the sail. However the sail and baya-baya rope (marked 30 in Plate XVII) figure prominently in other bark paintings from the region and in some of the cave paintings on Groote Eylandt. (See Macknight 1969c:8.) The ceremonial prau in sand mentioned above stresses the anchor, and Thomson’s example is similar to other such representations.(6) Even in the restricting technique of the stone pictures, there are substantial differences between feature 2, feature 12 and features 25 and 26 at Wurrawurravoi. These differences are both in the selection of features and in the way the various perspectives are combined. It is clear that in this medium, as in other forms of art in the region, the individual artist has considerable freedom of invention.

It is difficult to ascribe with confidence any motive to the creator or creators of the stone pictures. For our informants, the Wurrawurravoi site at least was merely an interesting legacy from the past with no sacred associations, and there was no reason for destroying or adding to it. However they did see a use for it in giving younger men some idea of the ways of the Macassans. The detailed knowledge that the old men still have of the Macassan contact is illustrated by the number of Macassarese words still remembered, and the pictures are a permanent reminder of this knowledge. Although satisfactory information was not available for the Hardy Island site, the situation there seems essentially similar. Bearing in mind the comparatively few generations involved, particularly with the Wurrawurravoi site, it seems unlikely that any great sacred significance was ever attached to either site. They should be seen rather as examples of yet another medium through which certain Aborigines attempted to record and comprehend the world about them.

NOTES
1. Berndt (1964:275) mentions various additional groups who claimed some interest in Lamamirri country. It is possible that the Guurtaj claim had become more dominant since 1964, or perhaps Mun-gurravuy just liked to think so.
2. For an account of the Macassan trepang industry see Berndt and Berndt 1954, Mubaney 1966, and Macknight 1969b.
3. Macknight (1969b) includes a considerable amount of confirmatory and additional material on the knowledge that various informants, including the two men mentioned here, had of praus and terms relating to them.
4. Mr. and Mrs. A. Bray kindly drew our attention to this reference.
5. We would like to thank the three people mentioned here for supplying us with this information.
6. Mr. Nicolas Peterson and Dr. Warren Schaprio have kindly told us of such representations of praus.
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INFORMATION ON THE INSTITUTE

The Australian Institute of Aboriginal Studies was established by the Australian Government in 1961 to promote scientific and scholarly research into the Australian Aborigines and to record their traditional life. The Institute's work covers the fields of social anthropology, linguistics, prehistory, material culture, ethnomusicology, ethnohistory and physical anthropology. Funds are granted to research workers, both in Australia and overseas who wish to carry out studies in these fields. The results of their work, together with bibliographies and manuals for field-workers, are published by the Institute and listed herein.

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Aboriginal Stone Pictures in Eastern Arnhem Land

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At the time of going to print, action was in hand to proclaim the area enclosing the sites as a Prescribed Area within the meaning of the Native and Historical Objects and Areas Preservation Ordinance 1955-60.

Under the provisions of the Ordinance, a person may enter a prescribed area but may not commit any offence against the Ordinance. Such offences include wilfully or negligently defacing, damaging, uncovering, exposing, excavating or otherwise interfering with places such as the sites of the stone arrangement.

Conviction for an offence against the Ordinance is punishable by a fine of up to $200 or imprisonment for a period not exceeding three months.

Rangers are to be appointed to police the provisions of the Ordinance in respect of these and other sites on the Gove Peninsula.
Acknowledgements

Our chief debt at Yirrkala is to our two main informants, Mun-gurrawuy and Mawalan, for their interest, co-operation and enjoyable company. We would also like to thank the many members of the mission and Administration staffs who assisted in various ways. On Elcho Island, Macknight would like to thank Barrnyunyur, and Frank Giluru and his fishing crew. The Rev. H. U. Sheperdson and Mr. C. Gullick made the trip to Hardy Island possible. In Canberra, Mr. W. R. Ambrose and Mrs. E. R. Wilkie helped with photographic work; Miss W. Mumford drew figure I and Mrs. L. White typed the manuscript. Miss Beulah Lowe of Milingimbi kindly checked a number of points of information for us. Finally we wish to thank Mr. E. C. Evans and Mr. D. J. Mulvaney for their advice and much other assistance.

Macknight's work has been financed by the Australian National University.
Authors Note

The orthography of Aboriginal words has presented many problems. In general we have tried to be consistent except for those words derived from Macassarese where some memory of the phonetic distinctions of that language may remain.

The case for referring to Macassarese as the source of these words is set out by Macknight (1969b). Information on Macassarese is derived from the dictionary of Matthes (1859), though we have used a more modern orthography.

The large staff in the photographs is painted in 20 cm. sections: the smaller scales show 1 cm. and 10 cm. divisions.

C. C. Macknight
W. J. Gray
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ABORIGINAL STONE PICTURES IN EASTERN ARNHEM LAND

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This report describes and discusses two sites in eastern Arnhem Land where stones have been arranged on the ground to form pictures of identifiable subjects. Though many other stone arrangements are known from elsewhere in Australia, the pictorial nature of the features described here is unique, and justifies the use of the term stone pictures.
The Wurrawurrawoi Site

The site was first pointed out in June 1966 to Mr. E. C. Evans and Gray by Mun-gurrwuy, during the course of a survey of sacred sites in the Gove Peninsula area. (Evans 1966) This particular site however has no sacred significance, and on that occasion was only visited briefly and not fully explored. In October 1966, Mr. and Mrs. M. Bray of Yirrkala visited the area and found several more features. In June 1967, both authors spent several days recording the information published here.

The site is situated on an open rocky shelf, about 400 metres square, projecting into the sea, about six miles south south-east of Yirrkala in north-east Arnhem Land. (Map Reference: Gove 1:250,000 SD53-4, 511,423. Lat. 12 deg. 20' 30" S; Long. 136 deg. 56' 0" E.) (Fig. I) On the north, the area is bounded by a creek bed running on to a sandy beach around the southern end of a large coastal sand dune; on the west, by a 50-metre-wide strip of dense coastal jungle growing on a sand dune, which overlies the rock shelf and runs parallel with the general line of the coast. On the south and east, the shelf ends directly in the sea, without any beach, and there is an impressive view out to sea and across Dalywol Bay to Cape Arnhem. (Plate I) The shelf consists of a hard, brown spherulitic ironstone and some bauxite. The rock has weathered at the surface to pebbles in a wide range of sizes, though larger blocks also occur. All stones used in the construction of the pictures appear to have been obtained in the immediate vicinity.

The general vegetation on the shelf is low grass and stunted scrub, becoming rather higher farther back from the sea. This pattern of vegetation can probably be attributed to the fierce south-east monsoon blowing in across the Gulf of Carpentaria during the dry season. The effects of this wind
are apparent in the sand dunes and patterns of vegetation right along this south-east-facing coast.

The stone pictures extend over an area approximately 80 metres by 70 metres, with a few less important outlying features. (Fig. III) This area is near the centre of the shelf, and on the edge of the larger vegetation.

Evans and Gray were told by Mun-gurrwuy that the name of the site was Wurrawurrrawoi, though there is some doubt as to whether this may not refer more exactly to the adjacent coast, where there is a sacred site, a small blow-hole associated with the Whale myth. Berndt (1964:277 no. 73) has also recorded the name from a group of informants, including Mun-gurrwuy, in the same location, but says that it is “referring to the trepang of the Baiini drying, and the wongar north wind blowing”. Whatever the precise connotations of the name, there does not appear to be a more convenient one for the site, and it will be adopted here for purposes of reference.

Our two main informants for the oral tradition concerning the site were Mun-gurrwuy and Mawalan. Both men had a particular interest in the site, but for different reasons.

In the remembered past, the area around Dalywoi Bay had been the territory of the Lamomirri clan (mala). (cf. Warner 1937 (1964:40)). This clan has now been reduced to only two women, who live a considerable distance away at Elcho Island mission. On the death of the last Lamomirri man, or possibly before, the area was taken into custody of the neighbouring Gumatj clan.(1)

The other main clan in the vicinity, the Galbu, has mostly moved to the Elcho Island area. As the recognized leader of the Gumatj, Mun-gurrwuy had thus the best claim to ownership, or at least guardianship of the site.

Mawalan on the other hand, who is a member of the Rrratjingu clan, was related to the father and son, Yumbulu and Dhatalamirri, who are reputed to have created the stone pictures. (Fig. II) Mawalan’s father’s second wife, and thus his classificatory mother, was the daughter of Dhatalamirri. Mawalan therefore regarded Yumbulu as his classificatory mother’s father, and more specifically, he regarded Dhatalamirri as nati or mother’s father.

In addition to their direct associations with the site, both men were recognized as particularly knowledgeable in all aspects of tradition, and they have acted as informants for many ethnographers on various subjects. Their familiarity with matters concerning the Macassans, whose material culture provides a large part of the subjects represented, is attested by the bark paintings of both men, and by the mass of detailed information on this subject given to Macknight and others. (2) Furthermore, there seems to have been a genuine desire to give as much information as possible about the site, so that on a number of occasions, our informants had discussions with other men to determine the most precise use of words relating to items depicted. It is difficult to determine the exact age of either informant, but probably they were both young boys when the last trepang prau from Macassar visited the area in 1907. Possibly however, their knowledge derives as much, or more, from older Aborigines as from any personal observations. Mun-gurrwuy’s father, for example, had actually been to Macassar (Mounthford 1956:292-3). Mawalan died in November 1967.

When the authors arrived on the site in June 1967, the grass from the previous wet season had dried off, but was still obscuring many stones. This light covering of grass was burnt off before work began. A base line was then laid out through the datum point and a 10 metre grid constructed from that with compass and tapes, and strings laid down between relevant pegs. This served as a basis for drawing the plans on to squared paper, with more accurate measurement where appropriate. The site was then extensively photographed. At this stage, Mun-gurrwuy and Mawalan arrived, and together they provided the information recorded below, dealing with each feature individually. Gray recorded this on the spot, and subsequently confirmed various details at Yirrkala with the aid of photographs.

The following comments on each feature are divided into two parts. The first is what was apparent to the authors: the second is information supplied by Mun-gurrwuy and Mawalan, with some explanatory remarks in brackets.

1. (a) A roughly circular arrangement, 1.2 m. in diameter, with an opening 20 cm. wide facing SE.

(b) A house used by the leader or leaders (bunggawa) of the Macassans. It is called bu Mandara and made from woven bamboo leaves called katja. (Bumandara may be derived from the Macassarese tagandara with the basic meaning of bamboo lathes in either the floor or roof of a building. Bunggawa is from the Macassarese taggawa — meaning a leader, or a captain of a ship. Katja is from kadang — meaning palm leaf mats). (See note on orthography.)

2. (a) A large lenticular outline, 10 m. long. Many gaps in the line, particularly at S end.

(b) A small boat called balarri, with a tripod mast of bamboo. (Palarri in Macassarese means runner or raker, and the term is applied to a type of prau. It has, in fact, a tripod mast of bamboo. See Plate XI.)
3. (a) A broken oval outline, 5 m. long. Possibly disturbed. (See Plate III.)
   (b) A small boat or canoe called lipalipa or balakangu. (Lipalipa is from the Macassarese lepa-lepa meaning dug-out canoe. See Plate XI. Balakangu may be the pre-Macassan term for a canoe).

4. (a) A circle 3 m. in diameter, with an opening 40 cms. wide facing NNW. Opposite this is a large stone set inside the circle, 40 cms. from the circumference.
   (b) Bumandara. (See 1 b.) Mun-gurrawuy suggests that this is more probably a structure where dry trepang was hung and stored, and not a house where people lived.

5. (a) A vague arrangement forming no particular pattern. Certainly not natural.
   (b) Danambalou or darring. A place where the wet trepang was cooked. (Danambalou may be derived from the Macassarese tana meaning land and pallu meaning cooking, thus the whole meaning cooking place. Darring from the Macassarese taring meaning cooking stones, particularly an arrangement of three. It is possible that these terms were used to refer to the lines of stone fireplaces found on Macassan preparation sites and illustrated by features 35-8, but this feature does not appear to be such a line and the terms were not recorded for the later features.)

6. (a) A very vague arrangement. Probably not natural.
   (b) As for 5 b. There are places for two cauldrons, called gawa. (Gawa is from the Macassarese kawa meaning iron cauldron, especially used for cooking trepang. The mention of gawa for this feature helps slightly the interpretation of the two words in 5 b as meaning stone fireplaces).

7. (a) A roughly rectangular arrangement, 1.2 m. by 1 m.
   (b) Perhaps a place for storing cut wood.

8. (a) A very vague scatter. Probably natural or accidental.
   (b) No information.

9. (a) A lenticular outline, 5 m. long. Very incomplete.
   (b) Balakangu. (See 3 b.) Mun-gurrawuy here distinguished between a larger canoe, balakangu, and a smaller version, lipalipa. (See 10 b.

10. (a) An oval outline 5 m. long, in stones of a fairly uniform size. An intentional opening on the SE side. Overgrown by a substantial bush on the NW side. See plate VI lower.
    (b) Lipalipa. (See 3 b and 9 b.)
11. (a) A roughly oval arrangement, very vague and incomplete. Overgrown by a large bush.  
(b) Lipalipa. (See 3 b and 9 b.)

12. (a) An excellently preserved picture, clearly recognizable as a prau. Carefully executed in small stones except for the rudder and one line across the middle in large stones. See Plate II and Fig. IV. Another view is shown in Macknight 1969:6 and Mulvaney 1969: Plate 13. (b) A prau.

(b) A prau.

A. Boku, no meaning collected. (This is probably from the Macassarese kuku meaning the deck of bamboo and palm leaf mats at the stern of a prau.)
B. Dhalambu, the captain’s quarters. The word appears to be from the Macassarese salompong meaning the fore part of a prau. It would seem to be misapplied here, unless it is only used in distinction to the kuku or small poop on the stern. However the captain’s cabin was usually on the kuku and not farther forward.
C. Gewil, the rudder. (From the Macassarese geling meaning a rudder.)
D. Bundaw, cabins for members of the crew. (From the Macassarese pondo meaning a captain’s cabin, particularly on a type of prau known as a banawa, but also on other types. The term seems to be used here loosely to mean any cabin.)
E. Bunggawa, that is, the accommodation provided for the bunggawa. (See 1b.) Despite the meaning of the Macassarese word from which this term is derived, our informants were emphatic that the bunggawa was not the captain of the prau. However the exact distinction in their minds is not clear to us.
F. Galley.
G. Fireplace.
H. Food Store
I. Tank.
J. Wadiung, no meaning collected. (This is clearly the Macassarese anjdjong meaning bowsprit.)

13. (a) A small arrangement in small stones of no apparent design. See Fig. IV.  
(b) A Macassan house with two rooms.

14. (a) One half of a lenticular outline, open to the NW.  
(b) Lipalipa. (See 3 b and 9 b.)

15. (a) A carefully executed picture in stones of a uniform size. Possibly slightly disturbed. See Plate VI upper and Fig. IV.  
(b) A Macassan house with eight rooms.

16. (a) A scattered, roughly oval arrangement of stones of about uniform
17. (a) A vague arrangement with parts of an oval outline and chords within. Possibly incomplete.
(b) A Macassan house.

18. (a) A carefully executed and well preserved picture. See Plate VIII and Fig. IV.
(b) A Macassan house with five rooms. (There appear to be more than five compartments.)

19. (a) Several stones placed together.
(b) Stones used for sharpening, particularly the knives of men working the trepan. The stones are referred to as kandhiji meaning sharp. (This word is probably Aboriginal.)

20. (a) A large arrangement, possibly meant to be an oval with chords. Very incomplete.
(b) A Macassan house.

21. (a) About nine stones placed together in a tight figure eight.
(b) Kandhiji stones. (See 19 b.)

22. (a) A small T shaped arrangement.
(b) Kandhiji stones. (See 19 b.)

23. (a) A well preserved picture. Possibly slightly incomplete. See Plate VII lower and Fig. V.
(b) Bumandara, a house used by a bungauna. (See 1 b.)

24. (a) A vague arrangement, possibly an oval with chords, but very incomplete. See Fig. V.
(b) Probably part of a canoe.

25. (a) A complex and carefully executed picture. Stones of two distinct sizes have been used. Generally well preserved, but there may have been some disturbance in the W corner. See Plate IV upper and Fig. V.
(b) A prau.

26. (a) A complex and striking picture, carefully executed in stones of various sizes. Possibly slightly disturbed or incomplete on the SW side. See Plate IV lower and Fig. V.
(b) A prau.

A. Bundaw, crew quarters. (See 12 b, D.)
B. Water tank.
C. Eating place.
D. Galley
E. Store

A. Bundaw (See 12 b, D.)
B. Galley and store.
C. Balana, the mast. (From the Macassarese palayarang meaning mast.)
D. Buhana, the sail or rigging. (From the Macassarese po ko meaning the rope fixed to the lower end of a prau's great rectangular sail.)

Our informants displayed great interest in this feature and volunteered some additional information concerning praus. Mun-gurraway described the two rudders on either side of the stern of the prau and said that the one, gawli (see 12 b, C), was manned by a crew member, the other called djemuddji, by the captain. In this he appears to be wrong, as the last term is clearly from the Macassarese djemuddji meaning a steersman. Both informants also mentioned two men detailed to look after the sails. The terms given in connection with this were djawawatu trawa, but their exact significance was not made clear. The second word is clearly the Macassarese trawa meaning two. The first word may be a combination of djaru meaning a man in charge, and watta meaning time. The entire phrase would then mean the two men on watch duty. Alternatively, djawawatu could be a corruption of djemudu-batu. In addition to his functions of sounding and lookout as mentioned by Matthis, this crew man was in charge of the anchor and rigging (Tobing 1961: 151-2). However it is then unclear why there should be two such men.
27. (a) A few stones dispersed in no apparent pattern. Certainly not natural.
   (b) A line of stone fireplaces with places for three cauldrons, called gawa. (See 5 b and 6 b.)

28. (a) A small collection of stones of various sizes.
   (b) Sharpening stones. (See 19 b.)

29. (a) A small collection of stones of various sizes.
   (b) A prau, balarr. (See 2 b.) This is said to have three masts (possibly a tripod mast) and four sails. (The interpretation seems remarkably imaginative.)

30. (a) A small heap of several large stones.
   (b) Sharpening stones. (See 19 b.)

31. (a) A small heap of several large stones, with three rows of smaller stones projecting to the W.
   (b) Sharpening stones. (See 19 b.)

32. (a) A vague arrangement of stones of different sizes.
   (b) An Aboriginal dwelling, and not a Macassan one. Mun-gurrway thought this feature might be the work of a child.

33. (a) A large, irregular circle, 5 m. in diameter, with a gap 1 m. wide facing E. There is a pile of large stones a little SW of centre. All well preserved. See Plate V upper and Fig. VI.
   (b) A type of fish trap called dhawurrinyin. (The word appears to be Aboriginal.) This type of trap was originally used by a man, named Djul-djul, who lived in and around the Wessel Islands. A direct descendant of his, called Monyu, now lives on Elcho Island and is the recognized leader of the Galbu clan. (The authors know of no actual fish trap similar to this in the Gove Peninsula area.)

34. (a) Three large stones. See Fig. VI.
   (b) Sharpening stones. (See 19 b.)

35. (a) Three clear bays facing SE. The stones have been piled together rather than set in single lines. See Plate V lower and Fig. VI.
   (b) A line of stone fireplaces with places for three cauldrons, called gawa. (See 5 b and 6 b.)

36. (a) A small pile of large stones with several rows of smaller stones. See Fig. VI.
   (b) A line of stone fireplaces. (See 5 b.)

37. (a) A long pile of stones with three or four bays facing SE. Behind this, an oval outline. All well preserved. See Plate VII upper and
Fig. VI.
(b) A large line of stone fireplaces with places for five cauldrons, called garea. (See 5 b and 6 b.)

38. (a) Three bays facing SSE. Not as substantial as feature 35. See Fig. VI.
(b) A line of stone fireplaces with places for three cauldrons, called garea. (See 5 b and 6 b.) Some of these smaller lines of fireplaces may have been used by Aborigines, while the Macassans used larger ones such as feature 37. (From contemporary descriptions, this distinction made by our informants seems unlikely.)

The features on the site fall into four groups distinguished by subject, style and position.

The first is made up of features 1 to 11, and probably feature 14. These are clustered towards the south end of the main area of the site, and depict boats, mainly canoes, and various constructions associated with the Macassans. From the identifications of features 1 to 7 and 9 to 11 supplied by our informants, it is possible to build up a picture of a complete Macassan trepanging site. A prau (2) and a canoe (3) are riding at anchor or drawn up on the shore. Other canoes (9, 10, 11) are out gathering the trepang. Behind the beach there are two lines of stone fireplaces (5, 6) with a stack of firewood nearby (7), while farther back is a smokehouse or at least a trepang store (4) and a hut for the man in charge (1). However, as most of the features are poorly preserved, and probably only existed in outline to begin with, there might be some suspicion of a little rationalization in our informants' interpretations.

To the north, features 12, 13 and 15 to 27 with perhaps 14 form another group. The subjects are similar to those in the first group, but the style is very different. These pictures are executed much more carefully in fairly small stones, and all major features in the group have interior lines in the design as well as an outline. In features 12 and 25, stones of various sizes have been used to create lines of different weight. However feature 12 and features 25 and 26 differ in their style of representing a prau, as discussed below.

The group to the west, features 28 to 39, is mainly distinguished by the fact that most subjects are modelled. That is, the stones are piled together rather than arranged in lines, though the oval outline behind feature 37 is an exception. The main subjects represented are stone fireplaces, sharpening stones and a fish trap.

The last group consists of the outlying features 40 to 45. These are all rather simple, and although little information was collected about them, they seem to have specifically Aboriginal, rather than Macassan associations.

Some similarities however can be seen between features 44 and 45, and some features in the southern and western groups.

It is tentatively suggested that these groups correspond with the work of various men at different times. If this is so, the southern group, on the doubtful grounds of poor preservation and lack of elaboration, may precede at least the northern and western groups.

Two small fragments of glass were also found on the site. They are very

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Figure 5. Wurrarawoiri. Features 23, 24, 25 and 26.
similar to many other stray fragments found all around this part of the coast and no significance can be attached to them. One is a very small curved green fragment and the other a moulded clear one. Both are probably nineteenth or twentieth century in date.

39. (a) A vague outline possibly of two ovals.
   (b) A house where wood was cut and stored.

40. (a) A circle, 70 cm. in diameter.
    (b) No information.

41. (a) A circle, 30 cm. in diameter.
    (b) Aboriginal living quarters. Mun-gurrawuy thought it was a house for a married man.

42. (a) A circle, 20 cm. in diameter.
    (b) No information.

43. (a) A circle, 30 cm. in diameter.
    (b) No information.

44. (a) A rough circle of large stones, about 2 m. in diameter.
    (b) See 45 b.

45. (a) A rough circle of large stones, about 3 m. in diameter.
    (b) (Including 44.) A representation of the camp of an Aboriginal group. The area on which the camp was built is located on the north point of Dalywoi Bay and is called Barrambarru.

The name of the earliest man associated with the site is Yumbutul, who, perhaps with some of his fellow clansmen, is reputed to have made the first pictures. From the genealogy set out in Fig. II, this could hardly have been before 1800 A.D. and was probably closer to 1850. His second son, Dhatalamiri, to whom the site was entrusted, is also supposed to have made some further pictures at a later date. Particular efforts were made to discover from our informants whether there was any possibility of more recent disturbance or additions. While they were quite sure of the comparative age of most of the features, it is possible that some disturbance, perhaps even some minor features such as feature 32, are the result of children playing in the area during recent times. It must be stressed however that the major features are certainly not the work of children. The discovery of a second site on Hardy Island, even though it is much less impressive, helps to confirm the authenticity of the tradition relating to the Wurrawurrawoi site.

Another possible source of disturbance may be the buffalo, considerable numbers of which have recently penetrated into the area. A well marked pad, which is also used by passing Aborigines, runs across the
PLATE I: WURRAWURRAWOL. General view looking south-east over Dalywol Bay to Cape Arnhem. Features 19 to 27 are visible in front of the ranging pole.
PLATE II:  WURRAWURRAWOL Feature 12, looking east.
PLATE III: WURRAWURRAWOL Feature 3, looking north-west.
PLATE IV:  UPPER, WURRAWURRAWOL Feature 25, looking east.
LOWER, WURRAWURRAWOL Feature 26, looking east.
PLATE V:  UPPER. WURRAWURRAWOI. Feature 33, looking north.

LOWER. WURRAWURRAWOI. Feature 25, looking north-west. Feature 38 can be seen behind.
PLATE VI:  UPPER: WURRAWURRAWOL Feature 15, looking south.
LOWER: WURRAWURRAWOL Man-gurrayay inspecting Feature 10.
The Hardy Island Site

This site was discovered by chance as Macknight and a companion from Eleho Island mission, Barnteanyur, were looking for Macassan sites in June 1967, a few weeks after the recording of the Wurrarrawooi site. The site is situated on Hardy Island, a small island some 3 miles by 1 mile in extent on the west side of Arnhem Bay. (Fig. 1) The south-east shore of the island is exposed to the south-east monsoon blowing over nearly twenty miles of open water, and apart from one sandy cove, is extremely rocky. At the north-east end of this cove, a small peninsula projects southwards and the site is located on the seaward side of this. (Map reference: Arnhem Bay 1:250,000 SD53-3, 408,429. Lat. 12 deg. 18' 0" S; Long. 136 deg. 4' 0" E.)

At high tide, the sea completely covers a few patches of sand and beats directly against the base of a small rocky cliff about 5 m. high, and facing south-east. Behind this there is a shelf up to 15 m. wide and devoid of vegetation, then a steep slope or cliff some 1 m. to 2 m. high and a further flat area with stunted vegetation running back about 30 m. to where the higher scrub begins. The surface is composed of hard, brown ironstone and pebbles weathered from it. (Plate IX upper)

The main part of the site, area A, has features on both the lower and upper levels. (Fig. VII) About 150 m. to the north-east, where the coast projects to form a small point, the few features of area B are found on the upper level.

Unfortunately it was only possible to spend a short time recording the site with minimal equipment. The plans therefore are no more than sketches, though the individual features have been checked against photographs. A brief search failed to reveal any additional features nearby.
ABORIGINAL STONE PICTURES

Area A

1. A ring of 4 large stones. Diameter 60 cm.
3. A very vague arrangement of stones, about 1.5 m. by 0.5 m., that might have been a row of bays. See Plate IX right upper.
4. A collection of several stones in no apparent pattern.
5. A row of about 7 semicircular bays, open to the W and arranged in a curve.
6. 5 small stones placed together.
7. A rather vague line of small stones, probably a series of semicircular bays facing W.
8. A line of 4 or 5 semicircular bays in small stones, and facing W.
10. 4 stones, possibly natural.
11. A ring of 7 small stones. Diameter 40 cm.
12. A line of 8 or 9 semicircular bays facing WNW. The N end of the line curves around slightly. A very obvious feature. See Plate IX lower.
13. A line of 8 semicircular bays facing SSW. A very well preserved and obvious feature. There is a slight build-up of pebbles behind the bays, but this is probably the result of natural agencies. See Plates X right lower and IX lower.
15. 3 stones, possibly natural.
16. A small cairn of large rocks. See Plate IX lower.

Area B

17. A line of stones, with 4 rows of stones projecting SE at right angles. Probably intended as a line of bays. See Plate X left.
19. A very vague scatter of stones. Probably a line of bays facing NW.

The only Aborigine to see the site on this occasion was Barnyurnyur, and he was not previously aware of its existence. He did however suggest the name Darawarka for this part of Hardy Island. Although no men actually associated with this particular area were questioned, the site is certainly not widely known. No signs of any recent visits were observed in the vicinity, though parties of Aborigines still occasionally camp on the other side of the island. It would seem that the site has no sacred significance.

THE HARDY ISLAND SITE

There is even less evidence as to a date for the construction of the features than at Wurradurry. However the vegetation covering a number of features and the general appearance of the area suggest that at the very least several decades, and probably much more, are involved.

Though it is risky to interpret any of the Hardy Island features on the basis of information from Wurradurry, there can be little doubt that many of the features here are meant to be copies of the Macassan lines of stone fireplaces for boiling trepang. The most obvious are features 5, 8, 12 and 13. Features 3, 7, 17, 18 and 19 are further possible examples. It is to be noted that in some of these features, such as feature 13, the fireplaces are represented by distinct semicircular arrangements, and not walls forming open squares as in the examples, such as feature 37, at Wurradurry. (See Plate X right lower.) Both styles are found on Macassan sites.
Figure 6. Wurrwarrawoi. Features 33 to 38

Figure 7. Hardy Island, Site layout of arrangements
PLATE IX:  UPPER, HARDY ISLAND SITE. General view looking north-east. The lower level of area A can be seen in the foreground. Area B is located on the point behind.

LOWER, HARDY ISLAND SITE. View of upper level of area A, looking south. Feature 12 can be seen in foreground, feature 13 behind Barrayarmyur and feature 16 behind that.
PLATE X: LEFT. HARDY ISLAND SITE. Feature 17, looking north-east.
RIGHT UPPER. HARDY ISLAND SITE. Feature 3, looking north-east.
RIGHT LOWER. HARDY ISLAND SITE. Detail of a "fireplace" in feature 13.
PLATE XI: Model of a palari, one type of Macassan prau, together with a Lepa-Lepa or dug-out canoe. (After Matthes 1885: Plate 16, Fig. 4.)
Discussion

The similarities in the situation and nature of the two sites described here suggest very strongly that they are related. Furthermore, both sites appear to be the result of local Aboriginal activity. The subjects depicted show that they are certainly not European in origin. Nor are they variations of the common Macassan trepanging sites. Even the copies of the stone fireplaces are generally smaller and less massive than Macassan fireplaces, and both sites are in totally unsuitable situations for Macassan trepanging activity. Neither do they display any of the other usual features of Macassan preparation sites, such as abundant charcoal and ash, a scatter of pottery, and smokehouse depressions. Both sites are also too far away from Macassan sites for there to be any direct association. The nearest such site to Wurrarawrawoi is about a mile south on the other side of the entrance to Dalywoi creek. (Macknight 1969b: site 24c) On Hardy Island, there are several sites about a mile away on the other side of the island. (Macknight 1969b: sites 20 b, c, d) However the most positive evidence for the construction of the pictures by Aborigines is in their general stylistic similarities with other forms of Aboriginal expression. This raises the question of how these pictures relate to other aspects of the local culture.

There are, of course, many other Aboriginal stone arrangements known in all parts of Australia. It is clear though, in all cases where any traditional information as to the meaning of other sites is available (and from the appearance of sites where this is not available, it would also seem to be true for them), that the arrangements have a purely symbolic meaning. The sites reported here are unique in that the features actually depict the subjects they represent. In most of the larger features, the subject is obvious to any
ABORIGINAL STONE PICTURES

observer, particularly to one familiar with the conventions used in other art forms in the area. Even with the minor or disturbed features, it is usually possible to see an outline, or at least a suggestion of the subject suggested by our informants.

The difference between symbolic stone arrangements and the stone pictures can easily be seen by comparing these sites with the nearest symbolic arrangements of which there is a published record. McCarthy (1953a; 1953b) has described various arrangements of boulders and stone slabs on Groote Eylandt with their mythical associations. Simple piles of stones or upright slabs symbolize pieces of a mythical stingray figure together with the men who ate them, and other similar figures. On another site, the same sort of arrangements relate to a mythical snake woman and her activities. Various parallel lines of stones represent a pathway she followed.

Although the sites described here are exceptional in our present state of knowledge, there are probably others as yet unrecorded. The only reference to what might be a similar site is by Bartram (1967). (4) Probably on Marchinbar Island or nearby in the Wessel Islands, she was told of a “huge flat rock where long ago Aborigines had made rock sculptures. By skillfully placing small rocks they had outlined the shape of a 50 ft. crocodile, and filled it in with more rocks. They had used tiny pebbles to make the shape of fish.” Djinggulul, an old man from the Wessel Islands now living at Elcho Island mission and a good informant, also maintains that such stone picture sites exist in the islands. It is relevant to note that much of the coast between Elcho Island and the Gove Peninsula is rocky and exposed, similar to that where the two sites reported here are located, and that is rarely visited.

The idea of pictorial representation in this manner is only a small step from various other techniques employed by local Aborigines. There is no published account of a symbolic stone arrangement in eastern Arnhem Land, but Mr. John Rudder has told us that some lines of stones were found in late 1967 near the Yirrkala school, which may be such an arrangement. Further east on the mainland opposite Milingimbi, Mr. Nicolas Peterson has seen a large arrangement relating to a kangaroo. Outside eastern Arnhem Land, there are arrangements referred to above on Groote Eylandt (and there are further ones there as well), and Mr. Robert Edwards has recently recorded several in south-west Arnhem Land and adjacent areas. (5)

More important comparisons however, are with other forms of pictorial art in eastern Arnhem Land. The subjects of praus and canoes are fairly common in bark paintings, although there are important differences in representation from those at Wurrrawurrwai. (See below.) There are also examples of buildings shown in bark paintings (e.g. Mountford 1956:331-338), though the representation is very different from that in stone. There do not seem to be any examples of trepang fireplaces or fish traps represented in bark paintings.

The only cave painting site known in eastern Arnhem Land has been recorded by McCarthy (1960:384-7), but there are no relevant subjects depicted. It is interesting however that praus and canoes are commonly shown in the cave paintings on Groote Eylandt.

There are various forms of ground drawing found in the area. Perhaps the most relevant are the ceremonials sand pictures of totems. For example, Thomson (1949:60-1 and plate opp. 62) describes and illustrates a representation of a prau, though again the distinct style should be noted. Mountford (1956:288 C, D, 404) has recorded a few examples of drawings by children on wet sandy beaches. Such sketches can still be seen on almost any day around a settlement. It is unlikely however that children were responsible for the “life-size representations of the dugong, sharks and crocodiles, also a lugger in sail”, that were seen scooped in the sand on “North Wessel Island” (probably Marchinbar Island) by Barrett. (Barrett and Croll 1943:71 with plate; see also Barrett 1948.) Warner (1957 1964:150) records how for magical purposes connected with a revenge expedition, an old man “draws the likeness of [the man to be killed] on the earth or moulds it on the ground with his hands.”

The conclusion to be drawn from these comparisons is that although the technique of making stone pictures is compatible with the background of other forms of art in the region, it is a distinct, and previously unrecognized medium of expression. Furthermore, there are a number of subjects, particularly the stone fireplaces, fish trap and sharpening stones, not otherwise represented, and several others, such as praus, canoes and houses, depicted rather differently from elsewhere.

The praus are particularly interesting as they provide the best opportunity to compare diverse representations of a rather complex subject in various media. Furthermore we know with some accuracy what the original subject looked like. A model of one of the types of prau that came to Australia is pictured in Plate XI, and Matthes (1865: Plates 16, 17), from whom this example is taken, illustrates several other types. The best illustrations of praus actually off the Australia coast are by Westall (Perry and Simpson 1962: Plates 109, 100) by king (1818, reproduced in Macknight 1960c:10), by Le Breton (Dumont d’Urville 1846, Plate 114, reproduced by Mulvaney 1969: Plate 2) and by Owen Stanley (reproduced in Macknight 1969a:opp.155.) Although there are slight differences between all these praus, features such as the fairly high stern, the tripod mast, the large rectangular sails, the double rudders and the general system of rigging are common to all.

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DISCUSSION

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ABORIGINAL STONE PICTURES

Aboriginal representations of praus select varying features to be shown. Thus the bark painting by Mawalan facing title page, includes the tripod mast (as in feature 26 and as perhaps intended in feature 25 at Wurrawurrawoi) and the rudders (one of which is shown in feature 12 at Wurrawurrawoi), but ignores the sail. However the sail and baya-baya rope (marked 30 in plate XI) figure prominently in other bark paintings from the region and in some of the cave paintings on Groote Eylandt. (See Macknight 1960c:8.) The ceremonial prau in sand mentioned above stresses the anchor, and Thomson's example is similar to other such representations. (6) Even in the restricting technique of the stone pictures, there are substantial differences between feature 2, feature 12 and features 25 and 26 at Wurrawurrawoi. These differences are both in the selection of features and in the way the various perspectives are combined. It is clear that in this medium, as in other forms of art in the region, the individual artist has considerable freedom of invention.

It is difficult to ascribe with confidence any motive to the creator or creators of the stone pictures. For our informants, the Wurrawurrawoi site at least was merely an interesting legacy from the past with no sacred associations, and there was no reason for destroying or adding to it. However they did see a use for it in giving younger men some idea of the ways of the Macassans. The detailed knowledge that the old men still have of the Macassan contact is illustrated by the number of Macassarese words still remembered, and the pictures are a permanent reminder of this knowledge. Although satisfactory information was not available for the Hardy Island site, the situation there seems essentially similar. Bearing in mind the comparatively few generations involved, particularly with the Wurrawurravoi site, it seems unlikely that any great sacred significance was ever attached to either site. They should be seen rather as examples of yet another medium through which certain Aborigines attempted to record and comprehend the world about them.

1. Berndt (1964:275) mentions various additional groups who claimed some interest in Lamamiri country. It is possible that the Guma'iti claim had become more dominant since 1964, or perhaps Mun-gurrawoy just liked to think so.

2. For an account of the Macassan trengg fishing industry see Berndt and Berndt 1954, Muthuswamy 1966, and Macknight 1969b.

3. Macknight (1969b) includes a considerable amount of confirmatory and additional material on the knowledge that various informants, including the two men mentioned here, had of praus and terms relating to them.

4. Mr. and Mrs. M. Bray kindly drew our attention to this reference.

5. We would like to thank the three people mentioned here for supplying us with this information.

6. Mr. Nicolas Peterson and Mr. Warren Schapiro have kindly told us of such representations of praus.

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MACKNIGHT, C. C.


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MATTHES, B. F.,


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MOUNTFORD, C. P.,


MULVANEY, D. J.,


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PERRY, T. M.

& SIMPSON, D. H. (eds),


THOMSON, D. F.


TOBING, O. L.,


WARNER, W. L.,


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The Australian Institute of Aboriginal Studies was established by the Australian Government in 1961 to promote scientific and scholarly research into the Australian Aborigines and to record their traditional life. The Institute’s work covers the fields of social anthropology, linguistics, prehistory, material culture, ethnomusicology, ethnohistory and physical anthropology. Funds are granted to research workers, both in Australia and overseas who wish to carry out studies in these fields. The results of their work, together with bibliographies and manuals for field-workers, are published by the Institute and listed herein.

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Contents

A Training Pool for Australia's Orchestras
The Sea Voyagers of Eastern Indonesia
The Town That Is Yet to Be
 Australians and The Sport of Kings
Korea's Edition of the Chinese Buddhist Canon
Problems of Art Conservation
India's First Modern Poet
People of Interest

The cover design is by Osman Effendi, a well-known contemporary Indonesian artist who has exhibited in many of the major cities of Asia, Europe and America.

Hemisphere does not necessarily endorse views expressed in signed contributions.
I went in myself the other day. It was a hot, humid afternoon, a typical Sydney late summer day, the air laden with oppressive moisture and the trees rowdy with thrilling cicadas. The cool hall was a refuge of shade and comfort. It used to be used for school concerts and socials and church bazaars, but now its walls are hung with orange curtains and black metal chairs are arranged on the polished floor. Twenty-eight musicians were there when I called. The conductor stood on a podium in his shirt sleeves. The music, rippling and babbling on the summer air like a draught of some cool, effervescent beverage, was Stravinsky’s Pulcinella.

All the players, I noticed, were young—some of the girls still in their teens, the oldest of the men no more than twenty-five. They were all casually dressed, in shorts and summer frocks and rubber thong sandals as if they had strolled in from the beach or a picnic. The atmosphere appeared to be one of the utmost informality, as if the players had come together on a casual impulse to make their music as the mood took them.

But it soon became clear that this was a very serious gathering indeed. The conductor was a tall, well-built, grey-haired man in middle age, of kindly

though somewhat gruff authority, whose voice, a D instead of an E! A scraping of bows, ‘It’s still there.’ Heads down, more scrapes.

Stop again. ‘Oh bassoons!’

‘Sorry.’

‘You realize your mistake, don’t you?’

‘My fault.’

Off again.

‘Tap. You must follow exactly this speed.’

Right: The orchestra makes its second public appearance at Macquarie University, Sydney, in 1967.
Another try. 'Your tendency is to play the triplet just a little too fast.'

Again. 'Yes, but try to go up in semitones.'

'Sorry.'

'All right. From the fourth bar.'

The National Training Orchestra, under its conductor Mr. Robert Miller, is controlled and financed by the Australian Broadcasting Commission. It is not a 'holding' orchestra in the sense that it employs a permanent body of musicians who give regular performances. Strictly speaking, it is no more than a collection of trainee instrumentalists, though such a description does little justice to its enthusiasm, its spirit de corps or the technical accomplishments of its members. It offers some twenty-eight scholarships a year, each worth $1,750, to promising young musicians, with the idea of training them to take their places in established Australian orchestras, most of which, in turn, are controlled by the A.B.C.

The shortage of qualified young orchestral musicians is world-wide, and the reasons are complex. Partly they are economic. Young people tend to believe (mistakenly) that musicians are poorly paid and lack security in their work. Many quite skilled musicians are daunted by the knowledge that professional orchestras require the highest technical standards of their members. Experience of sight reading and a sound knowledge of the standard repertoire is essential to anyone who joins an orchestra—but where does the aspiring young recruit gain this knowledge?

I talked this over with Robert Miller between rehearsals at Lindfield. In the background was the sound of tootling woodwind noises and scraping strings as the orchestra practised individually. By far the greater number of musicians finishing their training are pianists and vocalists', he said. 'When you consider the number available for orchestral work you can cut the number down already by 60 or 65 per cent. Take out the students not interested in an orchestral career, who either want to be soloists or teachers or are not interested in music as a profession, and we are left with perhaps 5 per cent who are potential orchestral players. Perhaps 3 per cent will be up to the standard we require. You can see why there is a shortage around the world. We are the only country apart from Britain where this is being tackled systematically.'

The A.B.C., which maintains six orchestras throughout Australia, decided two years ago to do something about the shortage. The idea came from Mr. John Hopkins, the A.B.C.'s director of music, who suggested an orchestra to train qualified young musicians in orchestral techniques and repertoire, and to provide a nucleus of experienced recruits for the major established orchestras. The students would also be available for orchestral assignments during their scholastic years. The orchestra would give frequent public performances in their own right. The initial value of the scholarship ($1,500) has since been raised to $1,750, and an allowance of $400 is provided for players living away from home.

After auditions in each State, the A.B.C. National Training Orchestra began rehearsals in Sydney on January 3, 1967. What the players lacked in talent they made up in enthusiasm. 'The vitality and intensity of the playing', Robert Miller wrote of one performance, 'made their reading of the Prince Igor overture sound more barbaric than even Borodin had bargained for.' But the young recruits soon acquired a distinct professionalism. In their first twelve months they studied 195 orchestral and chamber works.

Robert Miller was a logical choice as the orchestra's first conductor. With thirty-three years as a violinist in the Sydney Symphony Orchestra, including two years as co-leader with Donald Hauled wood, he had unique experience as an orchestral player. In addition he had learned conducting with Sir Eugene Goossens, and his ten years as a violin teacher on the staff of the New South Wales Conservatorium of Music had brought him into contact with young people.

'My first reaction when John Hopkins approached me', Miller recalls, 'were very pleasant ones. After thirty-three years with the orchestra I had finished up in the highest position, but I knew it was time to think about my future. There was then no retiring age in the orchestra and there were players who had been there longer than I had. I hoped that at the age of sixty-five I would still be able to go on and pull my weight, but I felt a change would be welcome. I needed something more creative, and something new in a field of work where I had had considerable experience.'

Miller believes firmly in the value of public performance to consolidate the detailed work of rehearsals. For this reason, public concerts, radio and television broadcasts and school concerts are an important part of the orchestra's programme. Ambitious young players are encouraged to prepare concertos for rehearsal and performance with the orchestra. 'Young players always have a desire to perform as soloists', said Miller. 'If they feel they have to submerge this aspect of their profession it can be discouraging.'

What sort of prospects await the students when they finish their training? Miller is at pains to stress the popular notion that musicians lead humble, poorly paid lives.

Conditions for musicians today, particularly orchestral conditions, have advanced to such a degree that the incentive is very great, he said. 'But many teachers who remember their own rates of pay and irregularity of work still tell their pupils that is what they can expect. A surprising number of well known musicians are still quoting figures that are twenty years out of date and discouraging students from taking music as a full-time career. I say to them, 'If you had your own time again would you do differently? Do you consider yourself a failure?'' "No", they say. "Well", I reply, "can't you offer some incentive to your pupils and give them the encouragement you were given in your career? Do you know what the rates of pay are for young players now?" When they say no, I tell them the most junior player working thirty hours a week in a regular orchestra can expect to start at about $104 a week. The highest pay for senior orchestral work will be much higher'.

Applications to join the orchestra are running at about eighty-five each year. Recruits are chosen with an eye to the likely needs of big orchestras— at present the instrumentalists in shortest supply are bassoonists, horn players, cellists and viola players. The first scholarship holders have now completed their course and fifteen have been absorbed into full-time orchestral positions. 'Rather than turn people out into the cold at the end of their training', said Miller, 'we are now able to retain four players in addition to the twenty-eight we take normally until we need their positions for other players or until they succeed in auditions for the professional orchestras.'
for a few days to six months. 'Last year they had six cases of flu in the violins of the Melbourne Symphony Orchestra.'

Another vital part of training is attending the rehearsals of the established orchestras, for which the students prepare by rehearsing the same works themselves. Students also enjoy visits from distinguished visiting conductors and soloists. Paul Dekker, Sir Bernard Heinze, Walter Siessen and the violinist Henryk Szeryng have all conducted or performed with the orchestra in recent months. Szeryng offered two $100 scholarships to outstanding students.

Trainees, of course, are encouraged to continue their private studies. Work with the orchestra occupies about thirty hours a week. They also get specialist coaching from principal players of the Sydney Symphony Orchestra who visit them regularly. For players interested in opera or ballet, the training programme includes some work in these fields.

Things have moved a long way from the days when Miller began his training. He remembers the ordeal of inexperienced players entering a full-time orchestra, having to learn as they went along, and with little time to practise and continue their studies. Successful orchestral work requires not only musical talent but a special virtuosity based on teamwork, discipline and what Miller calls 'a sense of professionalism'.

He has high hopes for the scheme. The present accommodation is still inadequate in some ways (insufficient facilities for practice, for example), but by staggering private practice arrangements Miller and his full-time orchestral manager have been able to cope very well.

'The whole thing has gone far beyond the original conception', said Miller. 'We have been able to augment the professional orchestras, and although we are moving players in and out, we are still giving public performances of a high standard. The number of people already appointed full-time to orchestras is encouragingly high.'

THE SEA VOYAGERS OF EASTERN INDONESIA

Campbell Macknight

SINCE the most remote geological ages, the islands of eastern Indonesia have risen like stepping stones out of the deep seas which divide Java and Borneo on one side from New Guinea and Australia on the other. It is hardly surprising therefore that ships and sailors have played a large part in the history of the region. Nearly all the inhabitants of the islands have developed some form of sea transport, but several groups stand out as pre-eminent in this regard.

For several centuries, the most renowned of these seamen have been the Bajau of the southern Celebes, and their neighbours, the Makassarese, have often accompanied them. Indeed the port of Makassar, almost in the centre of the archipelago and open to approach on almost any wind, has long been one of the great trading ports of Indonesia. However, these were not the only sailors to make long-distance voyages. One finds many references also to Javanese, Chinese, Tidoreans, Ternateans, and the rather loosely defined Badjau people, or sea nomads. Some of this last group, known as the Tuirjene, are often closely associated with the Makassarese and Bajau.

The trade routes established by such voyagers extended throughout the archipelago and beyond.
In a work published in 1769, Alexander Dalrymple records that 'the Buggeese ... have penetrated to New-Holland on the south, and to Papua on the east: they also voyage to Bencoolen, Quedah, Manila, and to all the intermediate countries.' Driven by the various alternating monsoons, these sailors were often out of sight of land, and their regular voyages compare well with any made before the onset of modern technology. However, it is only the area to the east of Makasar that we will be concerned with here.

Exactly when the Bugis, or other similar groups, began to visit these parts is not known, though it is unlikely to be as early as the origins of trade in western Indonesia. Nevertheless, recent archaeological evidence suggests that it might have been many centuries before Europeans arrived in the area. Certainly the Chinese make reference at the beginning of the sixteenth century to the trading activity in western Indonesia of people from the Celebes, and this seems to be well developed. It was no more difficult to sail eastwards. If the beginnings of this activity are still obscure, we can at least get quite a good picture of what a voyage on one of these praus must have been like in the eighteenth or nineteenth centuries.

The purpose of the voyage eastwards was to collect, or obtain by trade and barter, such products as trepang (hèche-de-mer or sea slug), sandalwood, tortoise-shell, pearl shell, birds' nests, bird of paradise plumes, sharks' fins, and the like. Most of these items were destined eventually for the Chinese market. In return, the traders distributed iron tools, cloth and many other European and Chinese goods obtained in Makasar, Singapore or any of the ports along the north coast of Java. Some praus, and perhaps particularly those that came to Australia, concentrated more on trepang, which was collected and preserved mainly by members of the crew.

In about December each year, as the north-west monsoon got under way, the praus set out from Makasar. They had various possible destinations. To the north-east lay the Moluccas and farther on New Guinea. Much of the trade from there was concentrated on a few small islands, of which the most important in the nineteenth century seems to have been Geser, off the east end of Ceram. German archaeologists in the thirties revealed another, perhaps earlier, centre on a little island in McCluer Gulf. Dalrymple records meeting 'a very sensible old man' in 1762 who had, in his youth, made seven voyages to 'Papua' for trepang.

More directly east lay the Timor, Kei and Aru Islands. At Dobbo, the chief trading settlement in the Aru, a Dutch brig reported in 1825 that about thirty praus came to trade. Sixteen years later, a British visitor noticed a considerable increase and said that the crewmen on the praus numbered some five thousand. To the south-east was Timor and the islands nearby, while behind these lay the Kimberley coast and Arnhem Land. All these voyages took five or six months, since, even if things went well, it was necessary to wait for the change in monsoon before attempting to return.

There were various types of praus, most ranging in size between twenty and fifty tons, though in the eighteenth and early nineteenth centuries there were said to be rather larger ones. Their strange, ungainly appearance belied their seaworthiness. The
Though his prau, which was seventy tons, was rather a large one, his description serves in general for all:

The deck sloped considerably downward to the bows, which was thus the lowest part of the ship. There were two large seeders, but instead of being placed stern they were hung on the quarter from strong cross beams... In the after part of the vessel was a low poop. About three and a half feet high, which forms the captain's cabin... Our ship had two masts, if masts they can be called, which were gross movable triangles... The mainyard, an immense affair nearly a hundred feet long, was formed of many pieces of wood and bamboo bound together... The sail carried by this was of oblong shape, and ... When the ship is off the centre, so that when the short end was hauled down on deck the long end mounted high in the air... The forecastle was of the same shape, but smaller. Both these were of matting, and with two jibs and a fore and aft sail stowed of cotton canvas, completed one rig.

The description fits almost exactly a model made for Matthys, a Dutch scholar at about the same time. This is described as a Padawakang, which is the usual name for the trading praus. Other types were the Pulari or racer, the Bondeng which was rather broader in the beam and the Lumbere which was a long, narrow prau. All these had the characteristic high, decked stern, which perhaps developed in imitation of European vessels. A more original type was the Pajala, which had only a light bamboo platform fore and aft, and a mat shelter amidships. In addition to a specific name, each prau had an individual name, often colourful or romantic, as with European ships.

A number of places in south Celebes were famous for their ship building. The best known were Aro, Lemo-Lemo, Bira, Bonthain, Bulukumba and the island of Manui. The praus also returned to these places each year to have their bottoms reprieved to the mixture. The best canoes and smaller craft were reputed to come from the Kei Islands.

The crews of the long-distance praus usually consisted of between twenty and forty men, though there were sometimes more. They were not paid regular wages, but entered into a legal contract by which they shared in the profits of the voyage. Needless to say, the owner of the prau (who usually stayed safely at home) and the captain received the greater proportion of any profit, so that in many cases the crew did not receive enough to cover the advance made to them for food and other supplies. Their burden of debt merely grew heavier.

However, many never returned home. Particularly before the mid-nineteenth century, there was an evident chance of attack and capture by pirates, and shipwreck was an accepted hazard. Even if the prau was not completely lost, a storm could still cause serious damage. For example, a prau coming to Arnhem Land in December 1889 was struck by lightning. One man was killed, three others injured and the mainmast destroyed. Probably the greatest scourge, though, was disease, but this applied whether or not men left home on the prau. Each of the trading settlements and many of the trepang camps had their cemeteries, and many died who have no grave.

The praus had great difficulty making any headway against a contrary wind, but with the monsoon behind them they could lumber along at a steady pace. Wallace gives five knots as the maximum speed of his prau, and on his trip across the Banda Sea, it averaged about a hundred miles a day. This seems to be consistent with the time taken on the voyage to Australia. An old man living near Makassar about twenty years ago remembered coming to Arnhem Land, and said that it took four days to cross from the eastern point of Timor to Melville Island, a distance of about four hundred miles across the open sea.

However, on occasion, greater speeds were achieved. In 1818 Philip Parker King, the famous Australian botanist, accompanying him, is possible to calculate that the fleet covered about forty miles in some four or five hours.

As King's vessel, the Mermaid, was little bigger than a prau, he was rather apprehensive about making too close a contact. Cunningham describes one meeting. 'Some of the praus passed within fifty yards of us, and on the deck of each, from twenty to thirty persons were observed. Seeing we were prepared for them they contented themselves with calling to us (in Malay language), frequently repeating Makassar, Trepang, etc.' By a happy chance, King has left us a charming watercolour of the incident. The cliffs behind are clearly recognisable as those on the north side of Copeland Island, where the author has found archaeological evidence of a trepang preparation site.

In fact there is a great deal of information about the praus and their activities to be found in the records concerning the exploration and early settlement of northern Australia. Because so much of this was in some way official, people had to compile...
reports on what they observed. These have survived and many are published. The fact that many of the observers were keen and therefore interested in these unfamiliar craft and their navigation, means that their descriptions include many useful details. For example, there is an interesting story which illustrates the geographical knowledge of the captain.

In 1839 a French scientific expedition under Dumont d'Orrville visited the north coast of Australia, and saw a number of praus at work collecting trepang. One of the officers describes how he was questioned by a prau captain on the route of the expedition. Perhaps a little hesitatingly, he sketched a map of Australia, New Zealand and New Guinea. The captain then took the pencil and added a rough outline of Indonesia, China, Japan and the Philippines. Of course he had not travelled so far afield, though he declared that he was willing to do so. Several Buginese maps of South-East Asia survived from the early nineteenth century, but much of the navigation was clearly a matter of long experience. Small compasses were often carried but probably little used. It is even said that the captains could tell the depth of the water and the speed of the prau by trailing their feet in the water.

In the first half of the nineteenth century, there were three unsuccessful attempts to found British settlements in northern Australia, and much was made of the possibility of supplying eastern Indonesian with European goods through a port in this area, rather than letting the trade flow through Singapore or Dutch ports. The plan was singularly unsuccessful, but apart from the first settlement, Fort Dundas (1824-9) on Melville Island, which was located in a very poor position, some praus did pay regular visits on their trepang-gathering voyages. In the 1828-9 season, thirty-four vessels carrying 1,056 men arrived at Fort Wellington (1827-9) in Raffles Bay, and more than forty praus are recorded in one season at the Fort Essington settlement (1838-49). The total number of praus frequenting the coast, particularly somewhat earlier, was said to be even greater.

The crews of the praus were probably glad to visit these outposts of civilisation. There is no doubt that they regarded most of the lands to the east as a sort of 'outback'. Wallace says that 'even by the Makassar people themselves, the voyage to the Ara Islands is looked upon as a rather wild and romantic expedition, full of novel sights and strange adventures.' Australia must have seemed even wilder, particularly along the Kimberley coast, which was known as Kai Djawa. There are reports of the trepangers in this area building small forts armed with guns to keep off hostile Aborigines. Perhaps this explains the puzzling discovery of a number of old cannon along this coast, though no one has ever recognised a fortification.

In Arnhem Land, which was known as 'Marege', arranging stones on the ground.

The names applied by the visitors to various features around the coast are also known and used by Aborigines. The original can often be guessed. For example, a Royal Australian Navy survey team was working in 1924 among the Pellew Group in the Gulf of Carpentaria, and recorded some place-names. According to them, the local Aborigines knew the south-east portion of North Island as Lumberjard. The Makassarese, Lembu Tjodi, meaning Little Bay, is not hard to recognise, and there is in fact a small sheltered cove here with a trepang site. (See also R. M. Berndt in HEMISPHERE, March 1965.)

Various changes began to overtake the praus towards the end of the nineteenth century. One important technological change was the adoption of European schooner rigging in place of the old rectangular sails. Wallace's prau and the model made for Matthes are clearly transitional, when compared with those seen by King and other earlier observers. In this century, the larger praus have used regular schooner rig with all caras sails, though the mast is still made up of three pieces. The change in rigging may also be connected in some way with the decrease in the average size of the prau since the mid-nineteenth century, though this is probably the result of various factors.

From the early 1880's, one important destination became more and more difficult to visit profitably.
THE TOWN THAT IS YET TO BE

L. and V. Fitzhardinge

ONE of the earlier experiments in real estate promotion near the Australian capital was Environa, advertised in the nineteen-twenties for sale as 'the nearest freehold land to Canberra'.

In fact it was, for all land in Canberra is held on a ninety-nine years' lease. Environa was part of a property known as Canberra Freeholds. In and about the infant federal city in the thirties and forties, visitors, after looking over Parliament House and the War Memorial Museum—which made up almost all of the sights of Canberra in those days—sometimes drove about seven miles south east of Capital Hill to look at Environa.

Laid out as a town, Environa had a band stand, an imposing arch, massive walls, and in the middle a forty-foot column, topped by a bust of Sir Henry Visitors to Environa admire the entrance gateway to a stone-enclosed recreation area. In the distance is a band stand.

£50 sterling or more on each prau, hastened its decline. When the issue of licences was restricted to locally owned boats in 1906, only three or four praus were still coming, out of the vast fleet that once sailed down.

The fortunes of a few individual captains can be followed in some detail in the South Australian records which survive from this period. One of the most outstanding, Oesing Daeng Marangka, is still remembered by the Aborigines, and their stories are confirmed by the records. He commanded various praus and was shipwrecked at least twice. Although he realised, after some opposition, that he had to obey the regulations, he seems to have been rather sorry to see such a long tradition coming to an end. Perhaps it is some compensation that he may be the only Indonesian to appear in the Australian Dictionary of Biography, as a representative of the men who worked in this part of the continent long before any Europeans.

Although technically illegal, a few smaller boats have surreptitiously visited the Kimberleys much more recently. Many of them have come from Kupang, at the west end of Timor. A few low coral islands and reefs in the middle of the Timor Sea appear to be fairly regular fishing and collecting grounds.

The introduction of steamers, and later of aeroplanes, has, of course, transformed travel between the islands of eastern Indonesia for most purposes, but the praus have not been put entirely out of business. They are still a relatively cheap and easy way of transporting people and cargo where speed and comfort are not particularly important. In the harbour at Makassar, or on the beaches of distant islands, they load and unload their cargoes, playing a significant part in the economic and social development of the archipelago.

Though the modern world is having its effect here, as everywhere, the graceful praus that sail these seas have a long and proud tradition behind them.

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Parkes, a statesman who laid the foundations of the Australian Commonwealth. No one quite knows where the bust had been acquired, but the stonework at Environa, weathering by the forties, was local, and its irregularity and massiveness gave it a strangely primitive appearance, as if it had been the hub of some lost and ruined town. This was the central part of Environa.

Visitors, always willing to listen to tales of villainy, heard rumours of some grandiose but vague swindle, and of the erection of these monuments so that they could be photographed for a prospectus for a city that would never be.

The truth is a little different, but hardly less colourful. Environa stands as a monument to the romantic and imaginative vision, not unmixed with shrewd, though in this case premature, business acumen, of one of the earliest and greatest practitioners in Australia of the art of real estate development in the grand manner, as it was practised in America. Henry F. Halloran, however, was no American. His great-grandfather was one of Australia’s first schoolmasters; his grandfather a distinguished public servant and somewhat less distinguished poet; his father was an architect.

Young Henry set up as a surveyor in Sydney in 1890, became a licensed valuer and auctioneer in 1899, and qualified as a local government engineer in 1920. In all these fields he showed considerable ability, but his real strength lay in the design and execution of bold and highly imaginative schemes of subdivision, backed by all the techniques of high-pressure salesmanship.

His Canberra project, of which Environa formed part, was not his only nor his largest enterprise of the kind: he had even more ambitious projects at Jervis Bay and Port Stephens on the coast, to name only two. Nor was he confined to such speculative

*An archway rises monumentally from the open fields.*

*ABOVE: Mr. Bertie Morrison, a grazier at Teralba, which adjoins Environa, explains how Henry F. Halloran planned his project on a radial principle, recalling the layout of Canberra. BELOW: Sheep graze on the quiet slopes of the planned city.*
ventures. By the early 1920's he had achieved a distinguished place in his various professions and was a man of considerable substance and reputation in the real estate world.

In 1924, when the future of Canberra as the federal capital seemed at last assured, and the sale of the first leaseholds was to take place later in the year, Henry Halloran launched his grandiose scheme of Canberra Freehold Estates, of which Environa was part. He had acquired large areas along the railway line (which is also the Federal Territory boundary) on both sides of the New South Wales town of Queanbeyan. These he had subdivided into town blocks, with highly imaginative street names shown on an impressive plan.

The idea was that since only leasehold would be available inside the Territory, the deep-rooted passion for freehold which lurked in every Australian would inevitably lead to a great majority of the future vast population of the Federal City to seek land of their own as near the city as they could get it. Meanwhile, blocks bought at modest prices spread over five years would lay up great profits for the future.

The subdivisions were launched with the uninhibited advertising characteristic of the booming twenties. Canberra City is the Stage, Canberra Freeholds the Dress Circle. Everybody should have at least one block"..."Increase your Capital by buying at the Capital. Absolutely the nearest freehold land to the Parliamentary and Government centres.

Having launched the scheme with some success in April 1924, Halloran went off to England, where he rented an office in Australia House and took advertising space on the back of an Inland Revenue official form. Here too he was, it was said, highly successful—indeed, one of the legends in later days was that his success in selling Canberra freehold blocks in high places in England later cost him the chance of a knighthood.

He was violently attacked by the London Truth and defended himself in a letter occupying nearly a page of the more sedate Morning Post. His activities gave rise to questions in both the House of Commons in London and the House of Representatives in Australia. Always the reply was that there was no evidence of misrepresentation, though the Australian High Commissioner was instructed to point out that the Government had nothing to do with his activities, and the British Government reviewed its practice of selling advertising space on official forms.

In fact, his blocks did exist, they were the nearest substantial areas of freehold to Canberra, and his titles were perfectly genuine. But no neat suburban houses rise along the Strada di Roma or the Rue de Paris, as he had grandly named the streets.

Why did the promised water and electricity fail to flow, and the streets remain unsaod? The answer is to be sought in the optimistic and romantic temperament of Halloran himself, no less than in the credulity of his clients. His conception was sound enough—it was only about fifty years ahead of its time. Canberra's growth was slower than many anticipated, and the depression killed the expansive hopes of the twenties. So sheep grazed on the blocks on which grazing rights had prudently been reserved until the buyers fenced them.

The blocks sold, both in Australia and in England, were on the parts of the estate nearer to Queanbeyan. Environa itself was never put on the market and no blocks were sold because it was the most southerly and isolated of the divisions of Canberra Freeholds. Here Halloran let himself go. The plan was his most imaginative, and at Environa he built his monuments.

Environa is a mile closer to Capital Hill than the currently developing suburbs of Canberra to the north-west, but it remains a sheep-grazing area. However, in the fifties, some of the other sections of the Canberra Freehold Estates were beginning to sell. These were nearer to Queanbeyan and were to be the first to receive some of the big population increase of the border town, which is growing fast.

The original prices of the blocks were reasonable: a small caucal was asked for, and then a regular payment of a dollar a month for each fifty dollars of the purchase price. Immediate possession of the land was given 'so that the purchaser has the use of the land for himself at once'. Few people, however, made use of their land, and it lay vacant for years.

The land in the Queanbeyan Municipality was taxable, and even modest town rates mount up over a couple of decades. At regular intervals, the Queanbeyan Council orders the sale of some of the blocks so that overdue rates can be paid. Some of the land is owned by the estates of people in England, for instance, and since land prices have risen sharply, there must often be sizeable sums remaining over from the enforced sales for old people, or for the inheritors of the original buyers.

Many of the vacant blocks were a great boon to the many migrants who went to Queanbeyan from Europe after the war; they found that they could get cheap land and start building houses. Thus, time has given life to at least part of Henry Halloran's dream of the future. And perhaps history may catch up with Environa itself, for the National Capital Development Commission is planning a big satellite city even farther south than Environa.

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AUSTRALIANS AND THE SPORT OF KINGS

John Schofield

Though the interest of many Australians in horse-racing may be restricted to a small bet on the major race of the year—the Melbourne Cup, which is held on the first Tuesday in November—to many others the sport is a major topic of conversation.

For as little as a dollar a week, virtually anyone can have a proprietary interest in a racehorse in Australia, and hundreds of people have one. Groups, some of them a hundred and fifty strong, are formed for the purpose in social clubs, golf clubs and anywhere where racing is discussed.

This is not, of course, the only form of proprietary interest that people have in racing. The man or woman who places a bet with a bookmaker or on the totalisator—a calculating machine which is, incidentally, an Australian invention—has such an interest in the horse of his or her choice, at least for as long as it takes to determine the fate of the bet. The owner is not alone in his confidence or apprehension as he watches his horse leave the enclosure for the start of a race; hundreds, sometimes thousands, of other people are wishing just as fervently as he that the horse will have a clear passage, that the rider will use expert tactics, and that they will win.

Seen in this light, racing appears as more than a mere spectator sport.

The history of racing in Australia, despite its comparative youth, is not far behind that of the classic English turf.

All thoroughbred horses descend in the male line from three stallions in England—Herod, who died in 1780, Matehem (1781) and the greatest of all, Eclipse (1789). While their sons and daughters were racing, the First Fleet landed on the foreshores of Sydney, bringing seven horses taken aboard at South Africa. It was not long before regular purchases were made from Africa and from India, where pure-bred Arab horses were readily available. Thoroughbred stallions and mares from England followed, and some of their descendants are still racing today.

In 1810 a race meeting was held in Sydney’s Hyde Park, now at the centre of the city with its two and a half million people. Before that, there had been sports gatherings with diversified programmes for pedestrians, horsemen, and sometimes fighting cocks.

Tasmania began organised racing in 1814. Western Australia in 1833, South Australia and Victoria in 1838, and Queensland in 1843. Now the sport in Australia is conducted under one set of basic rules, and one system of registering horses, has one Stud Book, and a reciprocal system of recognising punishments for wrongdoing.

The organisation this entails is best appreciated if we consider Australia’s size. It corresponds roughly to an area bounded by London, Moscow, Timbuktu and Aden; or by Manila, Hong Kong, Calcutta, and Colombo. Spread through this area are some eight hundred racing clubs, which hold fourteen
thousand meetings a year. Fifteen thousand horses are at present racing for stakes worth about $10,000,000.

Human nature being what it is, however, racing would probably not have survived and prospered without betting: the hope for easy money is the mainspring of the 'sport of kings'. While the compulsive gambler has money he will bet, and though he seldom retires with a fortune he may have won and lost large sums of money.

Colourful people in this category hold the centre of the stage in Australian racing and will continue to do so while bookmakers operate. A big coup is seldom made when one bets on the totalisator, which shares the pooled money equally among backers of the winning horse. Further, in these days of odds indicators (this is another Australian invention), everyone is at liberty to see one's betting operations. But in a tilt with the bookmakers, the first person to place a bet may have an advantage.

The 'knowing ones' may safely be taken as a guide to prospects—or so some people think. And there are big betting 'amateurs', men of substance who seek relaxation on the racecourse in pitting their judgment against that of the bookmakers and in backing their opinions with plenty of money.

Such a group recently began operations in Melbourne and in Sydney and made newspaper headlines by their wins and losses. They were businessmen from nearby Asian countries who on one occasion pooled a bet of $100,000 at even money on a two-year-old horse in an unimportant race at a provincial track near Sydney. The horse won, and the resultant publicity was so great that the group retired to more moderate betting.

Among keen racegoers, it is a status symbol to be seen regularly during the afternoon in the pay-out queue at the totalisator or at the bookmaker's stand. Such a person is to be cultivated as a man of knowledge and judgment, and, moreover, blessed with luck. Off the course there may be little reason to cultivate him socially, but 'on the turf and under it, all men are equal'.

Bookmakers no longer compete with the totalisator anywhere but in the Commonwealth of Nations, and in Australia several experiments have been made in banning them. South Australia once declared bookmaking illegal for a considerable period, but the Australian racegoer wants the right to choose. With only totalisator betting, race crowds dwindled and illegal off-course bookmakers prospered.

The need for uniformity in the control of racing was, fortunately, quickly recognised in Australia. In each State there is a principal club—in New South Wales, the Australian Jockey Club; in Victoria, the Victoria Racing Club; and so on. Each is armed with authority under State legislation.

At least twice a year the representatives of these clubs meet in conference, and from the early meetings there emerged the Australian Rules of Racing. These provide for additional approved 'local' rules to meet circumstances in the different States. Close liaison enables ideas to advance the sport—or in—
duty—to be investigated and, where they are adopted, to be improved through practice.

Australia's contributions to racing include paid stewards to supervise the conduct of races and prosecute the wrongdoer; the starting barrier, from which developed the modern starting gates; the totalisator and its ingenious odds calculator; a system of identification and registration of horses that, it is said, has no peer elsewhere; schools for apprentice riders; and the campaign, which has now become world-wide, to eliminate the doping of horses.

Ideas from overseas which have found a ready acceptance in Australia include starting stalls, photographs of race finishes, and a camera patrol to assist stewards.

Seminars for racing officials have been held, and in recent years regular conferences at which the controllers of racing in Asian countries have been represented.

Each Australian State has district associations. For example, there are seven in New South Wales, and two Registration Boards. Each of these bodies has a panel of stipendiary stewards. Appeals against penalties imposed by the stewards may be made to the appropriate association, from whose decision an appeal may be made to the principal club. In New South Wales inquiries conducted by the stewards are open to the press, and at appeals to the A.J.C. Committee may appear.

The State Totalisator, which supplement allocations of revenue from the Commonwealth by taxing local sources, finds racing a profitable field. Totalisator investments and the bookmakers' turnover are taxed and there is a betting ticket tax which in New South Wales in the 1967-68 season brought in nearly $15 million. Off-course betting provides an additional source of revenue both for governments and the racing clubs. Starting price betting with illegal bookmakers operating away from the racecourse was formerly very common, but totalisator agency shops operated by the governments now channel the profits from this source to better purposes.

The clubs are using their share to modernise amenities at the track races: one project, for example, is the first section of a grandstand at Randwick racecourse, Sydney, which will cost $3,000,000. They are also increasing prize money. A number of the main races now provide for $50,000 in prize money, and the Sydney Turf Club, which controls two of Sydney's racecourses, has set up a fifth prize for its handicap events.

The Australian Jockey Club has welcomed the trend, which started in Sydney, towards the ownership of stables by syndicates for breeding. Some difficulties arose, but these have been resolved by a rule requiring the declaration of a "manager" for each horse and limiting to six the number of names appearing as owners in the racebook. The clubs' executives see benefits for racing in this trend, both because it boosts race track attendance and financially strong syndicates boosts the market for yearling horses.

About 70 per cent of the horses used for racing qualify for entry in the Australian Stud Book, which now lists twelve thousand mares and eight hundred serving stallions. The intake of horses into racing during 1967-68 numbered nearly seven thousand, practically all of them qualified for Stud Book entry in the major centres. In outback areas the tendency seems to be to mate the best horses and mares and hope for the best results, without following strict Stud Book requirements. But the sires are usually thoroughbred, and also many of the mares.

New South Wales still claims the foremost place in thoroughbred breeding, but other States, particularly South Australia, are developing markets that attract interstate buyers and occasionally American and Asian interests.

The main breeding centres in New South Wales are the Hunter Valley and the Widden Valley, a tract of land about twenty miles long and at times only about half a mile wide, which is given over exclusively to thoroughbreds.

Because he is south of the equator, the Australian breeder is at a disadvantage in competition with breeders in northern countries. In North America, Europe and England the breeding season is reckoned with the calendar year; that is, the age of a horse is assessed on January 1. In Australia and New Zealand the racing season begins six months later, so that August 1 is the birthday of all horses. Moves to bring Australian breeding into line with that in the northern hemisphere have not succeeded because the mating of horses in spring has far more advantages than during the heat of summer.

The Australian-bred racehorse born, say, in September, is a year old by northern reckoning the following January; he can scarcely overcome this disadvantage in racing until he is a four-year-old at least. But he has proved overseas that the standard of breeding in Australia is high. Phar Lap was very successful when taken to America, as were Shannon and Sailor's Guide. Australian horses have won in England, and in breeding paddocks in all countries Australian stallions and mares have achieved success—Shannon, Bernborough, Beau Gem and now Noholme have proved outstanding sires in America.

Stud Book regulations require that certificates of matings give the mare's complete markings and brands, and the date of the last service by the stallion. When the foal is born, the date and a diagram showing the foal's white markings are recorded. After it is weaned, the registered brand of the stud is placed on its near shoulder and two numbers on the off shoulder, the upper one corresponding with the stud's record of the weaning and the lower one the last digit of the year of foaling. A coding system has been evolved using categories of head markings and leg markings. Fifteen hundred combinations occur, and reference is made to the appropriate group should suspicion of malpractice be aroused.

Malpractice does occur sometimes. Indeed, racing had not long been in progress in the Colony of New South Wales before sharp practice began. In 1829, settlers in the Hawkesbury district, near Windsor, staged a two-day race meeting with surprisingly high stake money. One race, a subscription event of twenty-five guineas for each starter, was won by an un-named filly by Abdallah. There was an objection that she had raced at other meetings under another name. The race was re-run without her, and the incidents were reported to the newly founded Jockey Club, but there is no record of anything having been done about it.

Any attempt to do such a thing today, even in remote centres, would be exceedingly hazardous and almost certainly would lead to disqualification. The last recorded attempt at a 'ring-in' occurred about twenty years ago at a race meeting in central Australia. A telegraphic description soon established that the horse had raced in Sydney; had been sold to race in Brisbane; had been re-sold to race a thousand miles away in the far north of Queensland, where with a clumsy alteration to brands he had been re-registered under a different name and taken across country to race as a maiden performer.

A happier story was publicised not long ago. A straying mare was impounded and then sold for a trifling sum to a woman who knew enough about horses to recognise 'blood'. She was told that the mare could, if thoroughbred, be one of six, only three of which were in New South Wales. When the mare was shaved, faint brands established her identity as a very well-bred New Zealand mare. She is now the dam of two winners, one of them—and a good one at that—appropriately named Lost and Found.

Records show that the A.J.C. Derby of 1928 was won by a horse named Prince Humphrey. In fact, however, Prince Humphrey was not even entered for the race, which at the time was Australia's richest. What had happened was that he was one of two yearlings which had been bought by a racing owner at a stud dispersal sale. They left Australia properly identified, but were subsequently confused. When the time came to register them for racing Prince Humphrey was given the pedigree of the other. He was accepted as properly entered for the Derby, and won. He was a plain bay horse, whereas the real entry had a broad white blaze. The confusion was not discovered until some weeks after the race—and then nothing was done about it.

The Author: John Schofield was formerly Turf Editor of the Sydney Morning Herald and Joint Editor of Australian Thoroughbreds.
ONE of the most precious treasures of the National Library of Australia in Canberra is the Korean edition of the Chinese Buddhist Canon in 1,340 volumes. This recently completed edition is an important addition to the extensive collection of Buddhist texts in Pali, Sanskrit, Tibetan, Chinese and Japanese in the library.

Buddhism originated in India in the sixth century B.C. During the following centuries Buddhism spread all over India and, via the north-west, to Central Asia. From there it reached China by the first half of the first century A.D. At that time Buddhism had already produced a huge literature in Sanskrit and other Indian languages. In order to make this literature available to the Chinese it was necessary to translate the texts into Chinese, a language greatly differing in structure from Sanskrit. Indians and Central Asians, together with Chinese, had laboured for many centuries to translate the enormous mass of texts brought to China either in the form of manuscripts or orally transmitted by monks who were capable of memorising voluminous texts. From the middle of the second century to the middle of the eleventh, many thousands of texts were translated.

Soon the Chinese realised the necessity of cataloguing the existing translations and of making collections of manuscripts. Especially after the re-unification of China in 589, which followed several centuries of division and disorder, it became possible to bring together in the capital manuscripts of texts translated in many centres in China. Learned monks compiled catalogues, compared the translations with each other (many texts were translated more than once) and selected the best ones so as to constitute a Canon of sacred texts. Lists were made of the texts which were included in the Canon.

The first list of this kind was compiled in 597. A better one was made in 602 by Yen-sin-tsung (557-610) and others. However, the one compiled in 730 by Chih-sheng (668-740). Chih-sheng’s list was adopted as a model in almost all editions of the Chinese Buddhist Canon until the end of the nineteenth century.

The Canon, described by Chih-sheng, comprises 1,616 texts in 5,058 chapters. The rolls were kept in 480 bundles numbered according to the first 480 characters of the ‘Thousand character essay’, a composition in one thousand different characters, used for centuries as a primer and consequently known by heart by all Chinese who had learned to read. This Canon consisted of manuscripts of which copies were made by monks.

The invention of printing in China made it possible to multiply texts in a much easier way than by copying. The entire Canon was printed for the first time in south-western China from 972 to 983 by the method of block-printing. The material generally used for making the wooden blocks is pear or jujube wood. The block is planed and rubbed over with a paste. The text is written on thin transparent paper which is put on the paste in a reversed position. When the paper is removed, an impression in ink of the reversed writing remains on the wood. The engraver cuts away all that portion of the wooden surface which is not covered by the ink so that the characters stand out in relief. The printer inks the face of the characters with a brush, then lays the paper on the block and runs a dry brush over it.

Once the sheets are printed they are pasted on long rolls of paper or the sheets (each printed only on one side and consisting of two pages of text) are folded backwards, keeping the printed sides uppermost, and after being placed one on top of the other are bound into volumes, the stitches being on the side opposite the fold.

But there was the folded book in the form of a concertina or the so-called butterfly binding in which the sheets are stitched in the middle. The oldest Chinese editions of the Buddha Canon were mostly published in the form of rolls; later ones preferred the concertina form which resembles Indian manuscripts consisting of a pile of palm-leaves pasted between two wooden boards.

Soon after being completed, copies of the first Chinese edition of the Buddha’s Canon reached Korea. Buddhism had already penetrated northern Korea in the fourth century. Two centuries later Buddhism had taken root in the kingdom of Silla in south-eastern Korea. As early as the sixth century Buddhism was introduced into Japan from Korea.

At the end of the tenth century Korea was ruled by the Koryo dynasty. To the west was the Liao empire (907-1125) which occupied the regions of modern Manchuria, Mongolia and the north-eastern part of China proper. The nomad rulers of this empire, the Khil-tan, made frequent incursions both into China and into Korea. During one of these incursions they occupied the capital of Korea. The emperor Hyojong (1010-1031) made a solemn vow to print the Buddha’s Canon. According to Korean sources the pronouncing of this vow was sufficient to force the Khil-tan to withdraw their forces. Of this first edition only a few texts are at present kept in Japanese monasteries. The wooden blocks, which were stored in the Puinsha temple, remained there until 1232.

Probably a second edition of the Canon was made in the eleventh century but scholars differ on this point. The first edition (or the first and the second editions) did not contain the many commentaries written in China by Buddhist scholars. This was a cause of great regret to Uich’on (1055-1101), the fourth son of emperor Munjong (1047-1082). He wanted to go to China but the emperor opposed his plans because at that time the relations between China and Korea were not very good. Secretly, Uich’on left Korea in 1085. He returned the following year with a great collection of commentaries, most of which were unknown before in Korea.

After his return he obtained other texts from China, from the Liao empire and from Japan. In 1090 he published a catalogue which described more than a thousand texts. Subsequently these texts were engraved and printed. A few texts of this edition, which constituted a supplement to the previously edited Canon, are preserved in Korea and Japan. They were all engraved during the last decade of the eleventh century. The wooden blocks were kept in Hwangwansa temple.

It was very important to preserve carefully the wooden blocks of the Canon and its supplement, because from time to time requests came for new copies of these two collections or of parts of them. As long as the characters on the wooden blocks were not worn out, texts could be printed from them at any time. In block-printing, the date of printing is generally not the same as the date of engraving. One of the very rare remaining fragments of the first Chinese edition of the Canon was engraved in 974 but printed in 1071, as appears from the date mentioned in a cartouche which was added by the printer. Perhaps no new edition of the Buddhist Canon would have been made in Korea if the blocks had been preserved. Two centuries later, however, a new edition became necessary.

In the thirteenth century Korea was repeatedly invaded by the Mongols. In August 1231 a large Mongol force crossed the Yalu river. By the end of
the year the capital Kaegyong (present Kaesong, north-west of Seoul) was surrounded by the Mongols and as a result of the fighting both the Puima and Hungwargae temples went up in flames. All the wooden blocks of the edition of the Canon and of its supplement were burned. In July 1232 the emperor Kojong (1214-1259) transferred his capital to Kanghwa, a large island off the coast of modern Inch'on. Here a new capital was built, and the Korean emperors remained there until 1270.

In 1236 the emperor made a vow to publish a new edition of the Buddhist Canon. This time, however, the desired result was not achieved. At the request of the emperor, Yi Kyubo (1168-1241) composed in 1237 a 'Prayer of the ruler and his subjects announcing the engraving of the blocks of the Canon' in which he expressed his sadness about the destruction of the wooden blocks, described as the 'Great treasure of the State'. He recalled the vow of emperor Hyonjong and exclaimed: 'Why is it that at that time the Khitai soldiers withdrew spontaneously but now the Mongols do not do likewise?'

The preparation of the edition was entrusted by the emperor to Suki and other monks. Whereas in the eleventh century an exact copy of the first Chinese edition was made, this time the text was established after a careful comparison of several editions. Of particular importance was an edition of the Canon undertaken in the Liao empire during the reign of emperor Hsing-tsung (1031-1055). It contained many texts missing in other editions. Also, according to Suki, the standard of editing was excellent.

It was always believed that nothing remained of this edition, but recently a Japanese scholar, Professor Ogawa Kunichi, succeeded in identifying a few fragments, belonging to this edition, among manuscripts discovered in Central Asia. A copy had already been presented in 1063 by the Khitai to the Koreans. Other editions used in the preparation of the text were the first Chinese edition and the Korean editions of the eleventh century.

The editorial committee made critical notes explaining the choice of texts and other editorial matters. These notes were appended to the works to which they referred and were also published separately in a 'Separate memorandum on the revision of the newly engraved Canon of the State of Koryo' in thirty chapters. This valuable work enables us to study the methods applied by the editors of the new Korean edition of the Canon.

The engraving of the wooden blocks began in 1236 and was completed in 1251. The catalogue, which was published in 1248, describes 1,524 texts in 5,556 chapters. It was the most comprehensive edition of the Canon published so far. The wooden blocks were first stored in the 'Hall of the blocks of the great Canon' outside the Western Gate of the capital. On October 11, 1251, the emperor visited the Hall and burned incense during a religious ceremony marking the completion of the work. In the fourteenth century Japanese pirates became a serious threat to the safety of the island Kanghwa. The blocks were brought to the Seuimsa temple on Mt. Kayo near the west of Taegu in south-eastern Korea. This happened probably about 1350. At present the 81,258 blocks are still preserved in the Seuimsa temple. It is almost a miracle that they have been kept safely there for more than six centuries. The blocks of all the other old block-print editions of the Chinese Buddhist Canon have been destroyed in the course of time.

According to a recent description by the Korean scholar Dr. Paek Nuksan, the wooden blocks are engraved on both sides. Every block is about two feet two inches long, nine and a half inches wide, and two and a half inches thick. The material used is the wood of the Pak Taal tree ('Bendula Schiddi Regel'). Each block weighs about three and a half or three and three-quarter kilograms (8.26 lb.). The four corners of each block are metal plated as a protection against cracking, and every plate is varnished to make it insect-proof. There are twenty-two lines on a page and fourteen characters in each line.

The number of copies printed in the beginning is not known, but was probably very small. Historical sources inform us that from time to time copies were printed, generally only one, two, three or four at a time. However, in 1548 fifty copies were printed. Japan especially showed a great interest in this new edition of the Chinese Buddhist Canon. According to one Japanese scholar, in the period from 1530 to 1539, eighty-three requests for a copy were received from Japan but only forty-three copies were sent. Another Japanese scholar states that eighteen copies were sent in the period up to 1501. However that may be, certainly many copies reached Japan during this period, and also thereafter.

In 1615 three copies were printed, one being destined for the Senyoji temple in Kyōto. In 1635 the emperor of Manchukuo visited Kyōto and expressed his admiration for the Korean edition of the Canon. At his request a copy was specially printed for him in 1637. The printing was supervised by Takahashi Torii, a Japanese professor at the Imperial university of Kyōto (Seoul). In 1951 Professor Takahashi published a detailed report on this printing, probably the last to be made before the present edition.

The Korean edition is important not only for the great number of texts included therein (some more were added after 1251) but also for the excellence of its editing. Later Chinese editions of the Canon were published with much less care and critical acumen. When, at the end of the nineteenth century, Japanese scholars brought out the first modern edition of the Chinese Canon (Tokyo, 1881-1885), the text was based in the first place on a copy of the Korean edition in the Zojoji temple in Kyōto. Likewise, the most recent Japanese edition (Tokyo, 1924-1932) is based primarily on the Korean edition.

It is due to the efforts of Prince Uich'on, Suki and many other Korean Buddhist scholars that the Korean edition of the thirteenth century is of such lasting importance to Buddhist studies. The Korean calligraphers and engravers do not merit less praise, because this edition is a splendid example of beautiful block-printing.

The present printing has been made from the original blocks. It is published in two different editions, one in 1,340 stitched volumes of the same size as the original edition, and the other of reduced size in fifty volumes bound in European style. The second edition gives exactly the same text as the first one. It is in the first place meant for the use of scholars, and would be a most useful addition to the library of any university which takes an interest in Buddhist studies.

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PROBLEMS OF ART CONSERVATION

William Boustead

In some respects, the history of art conservation in Asia parallels that of Australia. In both Australia and some Asian countries, people once tended to regard art which did not have a European origin as less than important, and ignored it. Climatic conditions and neglect, arising from lack of money and sometimes apathy, contributed to the deterioration of national treasures. As I have remarked elsewhere:

"Australia is a young country isolated from the age-old cultural influences of England and Europe, but very much in the immediate neighbourhood of peoples of more ancient culture. . . . It is inevitable that the arts of Asia will play an important role in our cultural outlook as did the taste and conditioning of our English forebears. Geographically we are closer to Asia than to Europe. Like India we have a long and rambling coastline where climatic conditions vary from the mild and bracing to the hot and humid. Inland are arid areas and vast deserts which except for similar high temperatures are in direct contrast to the tropical and sub-tropical areas on the coast which each year create havoc with materials of organic origin. In consequence, our conservation problems are similar."

Many of the indigenous people in tropical countries have now achieved their independence, and their keen desire to preserve their cultural relics has resulted in the formation of many museums. . . . Asian artists are now no longer content to express themselves in their traditional idiom but are turning to other forms of artistic expression. We find in Asia today people with a long tradition of manual dexterity and a new sense of national pride expressing themselves in a highly confident Western manner.

In Australia today, for instance, in addition to collections of Western works of art, museums are acquiring Eastern works, and in Asia museums are obtaining Western-style works.

The conservation of both schools raises certain problems. In Australia we have to a certain extent learned to cope with the problems of conserving Western works of art. But when confronted with a Mogul painting from which the paint is flaking away, a torn and water-stained scroll painting with multiple layers of silk, paste and mulberry paper, a bronze figure extensively corroded, and a fragment of an Asian fresco which threatens to fall apart if you as much as breathe on it, we are really put on our mettle.

Similarly, many Western-style paintings in Eastern countries develop their own particular maladies. Paintings soon crack, become infected with mould, paint flakes off, canvases rapidly deteriorate and water-colours oxidise and fade.

The conventional medium of oil painting is linseed oil, which needs oxygen and ultra-violet light to enable it to dry out and to bind the pigment. If the natural light contains too much ultra-violet (as
For example, Dr. Gairola, who spent many years researching a series of important murals, could not obtain supplies of the synthetic polymer essential for the consolidation of friable paint. Undeterred, he devised small sections of plastic sheets which were of the same molecular structure in an organic solvent and carried out a most successful restoration which endures to this day.

The present head of the laboratory is Mr. O. P. Agrawal, a brilliant and capable young conservation scientist who is highly regarded not only in his own country but also abroad. Dr. Agrawal has recently returned from a trip to the Belgian Congo.

At a later conference, held in Barcelona by the International Council of Museums section of UNESCO, Dr. Coremans suggested that these problems be investigated. A working party was formed to collect information and to suggest new techniques and to work out means to overcome these problems.

This resulted in a UNESCO eventually providing valuable scientific equipment for several Asian and African countries in need of it. A further outcome was the publication in 1967 of Handbook by UNESCO on conservation methods suitable for tropical countries.

Essential though scientific equipment is to the modern conservation laboratory, it is merely the tools of diagnosis. Without manual skill, experience and ingenuity its findings would be sterile. This was, perhaps, the main impression I received in 1967 when, returning from duty in Florence, I visited the National Museum in New Delhi. In the conservation department of the museum I saw scientists, conservators and restorers successfully coping with problems which would never be encountered in temperate zones. Under the capable leadership of Dr. Gairola, whose name should be the first in the history of art conservation in India, a group of extremely competent young Indians are doing magnificent work. True, some of them have been trained abroad and all had the advice of visiting experts, but what is most important is their enthusiasm, their manual dexterity and their ability to devise new methods using local materials. India is without the resources to import all the wonderful new materials which make the conservator's task so much easier. In consequence, they make do with what they have, and they do well.

The climate in Hong Kong is very similar to that of Sydney, with high humidity and temperatures, and sudden climatic changes. Atmospheric pollution created by industry, over-increasing motor traffic and smoke from the funnels of ships moored in the harbour also create conditions similar to those of Sydney. Consequently, our conservation problems are alike.

Singapore, Malaysia and Indonesia face similar conservation problems, and trained staff is desperately needed.

What has Australia contributed towards improved methods of conservation?

In the Department of the Art Gallery of New South Wales over a period of twenty years we have made a study of restoration problems in tropical and sub-tropical areas and have had some success in developing new methods. Realising that people trained abroad could not be expected to cope with these strange new problems, we set up a training scheme for cadet restorers which has proved very successful. Over a period of nine years we have trained fourteen young restorers. At present we have three cadet restorers in training and have received inquiries from Asia, Africa and America from young people interested in working with us.

The very large table which is now in use in most of the leading conservation centres throughout the world for the restoration of paintings was first developed in our conservation department.

Since most of our valuable prints and drawings were highly acid, and through the action of atmospheric pollution became yellow, we developed a method of reducing acidity of this content. This has improved the strength of the paper and provides more resistance to the various agents of decay.

So poor was the condition of many of our finest water-colours, drawings and prints that we had to develop new methods of removing mould spots, water stains and oil stains, and treating the effects of oxidation.

This experience proved invaluable when I was sent to Florence in 1967 by the Australian Commonwealth Government to set up a print restoration laboratory at the Biblioteca Nazionale and train young Italians in our methods of print restoration.

Today the Biblioteca Nazionale has the finest and best equipped print conservation department in the world and can deal adequately with the thousands of priceless prints, drawings, maps and documents which were so badly damaged by the disastrous flood in 1966.

The tendency for the paint on Aboriginal bark paintings to flake and powder away and for the bark support to revert to its natural semi-cylindrical shape bothered us for some time. After experiment we found that the loose paint could be successively fixed by spraying an acrylic resin of a certain viscosity over the painted design. The warped bark supports were permanently flattened by applying gradual vacuum pressure and applying a retarding film of a special copolymer polyvinyl acetate resin to the back.

The wall which we have just completed in the Art Gallery was a challenge to our conservation department in August last year. We were invited by Mr. Hughes de Varine-Bohan, the Director of the International Council of Museums, who was on a world tour of conservation centres, Mr. Varine-Bohan is especially concerned with the conservation problems of tropical and sub-tropical countries. He showed great interest in the proposal that my Asian colleagues and I had discussed, that an Asian-Pacific conservation group be established which would enable us to pool our knowledge, help each other out and exchange experts for short periods.
HISTORIANS may continue to disagree among themselves on the exact date of the emergence of the Bengali language and literature. But the fact that the Bengali language had been in existence for at least two thousand years by the time of the heyday of the Mughal Empire is beyond dispute. The Bengali language was the medium of communication in Bengal, the capital of the British India from 1773 to 1911; consequently the Bengali urban intelligentsia had the longest and most intensive contact with Western culture. The principal agencies for the diffusion of Western ideas and influences were situated in Bengal, and during the second half of the nineteenth century Calcutta University produced more graduates, professionals and public servants than any other Indian university. The relatively large size of the British-educated Bengali population gave the Bengali an advantage over other Indian languages.

During the first half of the nineteenth century the most significant development in Bengali was the emergence of its prose literature. Many people contributed to it—William Carey (1761-1834) with his translation of the Bible, his Grammar and Dictionary of the Bengali language, and his book of Bengali Dialogues; the pundits and munshi of Fort William College with their Bengali textbooks; various journalists and commentators with their writings in Bengali periodicals; and most well known among them all, Rammohun Roy (1774-1833), with his Bengali translations of the Upnishads and the Vedanta and many philosophical and polemical essays.

Recognised by his contemporaries as the first man of his age, Roy was a versatile scholar-reformer (he taught himself English, Greek and Hebrew besides Sanskrit, Arabic and Persian) who devoted all his energies to India’s modernisation. He worked unceasingly for social and religious reforms, advocated modern education, equality of the sexes, and reconciliation of races and cultures. He founded schools and periodicals, fought against various restrictions on human rights and freedoms, and offered seminal re-formulations of what on the basis of extensive critical studies he considered to be the universally valid principles of Hinduism and Christianity. He wrote extensively both in English and Bengali, and in the course of less than two decades laid secure the foundations of modern Bengali prose.

Roy was followed by other humanist reformers who not only carried on his work of liberalisation but further developed the Bengali language by enriching its diction and giving it greater flexibility and fluency. Among them the two most outstanding were Ishwar Chandra Vidyasagar (1820-1891) and Akshay Kumar Datta (1820-1866); in their hands Bengali prose became a tool that could be effectively used for the most diverse purposes. Then in the 1860’s came Bankim Chandra Chatterjee (1838-1894), who wrote the first modern novels in any Indian language, and who to this day is considered to be the greatest prose writer in Bengali.

While Bengali prose was thus gradually evolving in response to modernisation, there was no comparable development in Bengali poetry. The appeal of traditional poetry was much too securely established to be readily affected by the new cultural developments; it still enjoyed an extensive audience in rural areas, and a smaller readership was familiar with it in European literature. In any case, Iswar Chandra Gupta (1811-1853), the only noteworthy writer of Bengali verse in the early nineteenth century, was basically a conservative, albeit with acquaintance with the new forces was altogether superficial. He had a certain verbal felicity, and used this to satirise in verse contemporary developments. The profound psychological upheaval caused among educated Bengalis by the impact of new forces and values had yet to find its expression in poetry. The breakthrough at last came with the appearance of Michael Madhusudan Datta in 1859 as the first great poet of modern India.

Michael Madhusudan was a phenomenon. During the first thirty-four years of his life he had written nothing in Bengali, even his closest friends doubted if he knew the language well enough to handle it with ease. Yet between 1859 and 1862 he published in Bengali three full-length plays, two brilliant pieces of farce, two epic poems in blank verse, and two volumes of odes, lyrics and heroic epistles. In the brief period of four years he accomplished a revolution in Bengali poetry which in intensity and significance has few parallels in the history of any literature. This tremendous effort would seem to have exhausted his creative powers. Although he lived for another eleven years, his only other significant publication was a volume of Bengali sonnets (1866), most of them written during his stay in France.

Born in January 1824, of wealthy and orthodox Hindu parents, he had his early education at the Hindu College, at that time the premier institution of Western education in India. Here he developed his two major ambitions—to go to Europe, and to become a great poet in the English language. He grew up to be a romantic radical who felt himself a complete alien in his own country. In 1843 at the age of nineteen he renounced Hinduism, was baptised as a Christian and took the name Michael. From his correspondence and other sources it is, however, clear that his conversion was due much less to religious faith than to the spirit of profound defiance and the desire to go to Europe. For the next few years he studied Greek, Latin and Sanskrit at a college in Calcutta. His father stopped supporting him, he left for Madras where he worked as a teacher-cum-journalist from 1848 to January 1856.

At Madras, Michael married an English girl, Rebecca, daughter of an indigo planter, and had four children by her. The marriage broke up in 1858, but it is not clear whether it was a divorce. When, however, he returned to Calcutta in 1856 he had a Frenchwoman as his second wife, Amelia Henrietta Sophia by name, who remained utterly devoted to him till her death three days before Michael’s in 1873. During his years at Madras, besides teaching and writing in various periodicals, he published many poems in English including The Captive Lady and Visions of the Past (1849). They were strongly influenced by the English romantics, especially Scott and Byron.

It was, however, after his return to Calcutta in 1856 that Datta for the first time turned seriously to writing in Bengali. He was commissioned by some friends to translate into English a play by another Bengali contemporary, and while doing this developed the idea of writing himself a play in Bengali. The result was Samashta (1859) a remarkable tour de force, which offered a model radically different from that of traditional Indian plays. He wrote to a friend: ‘It is my intention to throw off the fetters forged for us by a servile admiration for everything Sanskrit.’

Sarnishto proved to be an immediate success, and was followed by a succession of plays, farces and poems which established Michael as the foremost writer of his time in any Indian language. Technically his most daring achievement was the introduction of blank verse in Bengali; he tried this at first in a short epic poem, Tilottonamushhu Kanyu and then followed this with his magnus opus, Meghnadavad Kavya, an epic in nine cantos, largelymodelled on Milton. In its conception, rhythm and diction, Meghnadavad made a complete break with everything in Bengali poetry during its previous eight hundred years of life. Eulogised Bengalis found in it a most powerful expression of the new spirit that was moving the country from the beginning of the nineteenth century.

In 1862 Michael left for England to study law, and his next five years (1862-1867) were spent in England and France. During this period he suffered much bitterness and in 1865 was arrested by the French authorities when, with his wife Henrietta and their children, he had to live almost destitute—but eventually he returned to Calcutta as a barrister in 1867. His European years produced over a hundred Bengali sonnets, the first to be written in this language. Here he also added to his already extensive stock of languages an intimate knowledge of French, Italian and German. He even sent to King Victor...
PEOPLE OF INTEREST

- (1) Two Japanese brothers, Sho and Kyō Tanabe, recently came to Australia for five months' coaching in tennis at the Kooyong Courts, Melbourne. The picture shows Sho Tanabe talking with the head groundsman of the courts, Mr. Lyle Banks, who was bringing the lawn back into good condition after an ice-skating show held there not long previously.

- (2) The picture was taken during the recent wedding, according to traditional Thai Buddhist rites, of Mr. Rupin Sasavativat, of Klongsan, Thonburi, and Miss Aunwan Tungwattana, of Bangkok. The bridegroom had just completed his final year in the Faculty of Electrical Engineering at the University of New South Wales, and the bride is a trained secretary. The wedding took place at the Sydney suburban home of Mr. and Mrs. John Fisher.

- (3) Miss Madalaine Nathan, a journalist from Singapore, is shown in the picture outside the office of the plant pathology at the Waite Agricultural Research Institute, which is part of the University of Adelaide. U Maung Maung Tin is a staff mem-

There were more than eighty Thai among the one hundred and fifty guests.

- (4) A Burmese graduate student, U Maung Maung Tin, of Rangoon, is at present engaged in research on plant pathology at the Waite Agricultural Research Institute, which is part of the University of Adelaide. U Maung Maung Tin is a staff mem-

- (5) Miss Margaret Harrison, a trained nurse from Sydney, is in India to spend two years teaching nutrition and hygiene to villagers under a scheme sponsored by an international body in Delhi. Action for Food Production (AFPRO). Miss Harrison will be a member of a team of five women: three of the other members see Indian and one is an American. In preparation for her work she recently completed a six-month course in infant welfare, and she intends, on arrival in Delhi, to take another course with AFPRO. The team will spend three or four weeks in each village, meeting local teachers in the hope that they will make new ideas part of their education system. The team will have its headquarters in Delhi and travel around the villages in a van equipped with camping facilities and visual aids, such as slides. The picture shows Miss Harrison before her departure from Sydney, being briefed on India by Mr. K. C. Chakravarty, of the Government of India Tourist Office.

- (6) Professor Suza Iwabuchi, Assistant Professor of English and American Literature in the Japan Women's University, Tokyo, recently returned home after having spent a year in Australia studying Australian literature. This is a subject she will be introducing to Japanese students on her return to the University in Tokyo. She says that universities and students in Japan are showing an increasing interest in Australian writing, but the range of available material is not wide. The picture shows her setting out from her apartment on her way to the University of Melbourne.

- (7) These two young men are Australian actors who have undertaken an Asian tour as wandering minstrels. Chris Winzer (left) and Barry Underwood (right) are graduates of the Australian National Institute for Drama. He who, for the past two years, have worked for the National Theatre, Perth. Their overseas itinerary includes Malaysia, Indonesia, Singapore, Thailand, Cambodia and India, and they expect their audiences to be mainly university groups. They plan a lecture series on Australian poetry and song, giving the historical back-

- (8) Australia's Minister for Immigration, Mr. Billy Snedden, is shown in the picture (left) presenting a gift of waxed linen cloth to Toho, grand champion of Sumo Japanese wrestling, who was recently visiting Australia. Toho won the Kyushu Grand Sumo Tournament last November and the Australian visit was part of his tour. Accompanied by two fellow Sumo wrestlers, T. Tsutsui and K. Tamaura, he proved very popular in Australia. Mr. Snedden's gift was intended to symbolize the wool trade between Australia and Japan and to be used for making traditional robes.

- (9) Miss Noriah Ibrahim, of Kuala Lumpur, Malaysia, is the only woman in a large class studying electrical engineering at the University of Western Australia. She is studying this subject because it demands less physical work than other branches of engineering, in which she has a general interest. During the recent long vacation she took a job in the planning department of the Western Australian Electricity Commission, where she is teaching her discussing her work with Mr. Alfred Bulley, the senior draughtsman. Miss Ibrahim thinks this is the kind of work she will probably be doing when she returns to Malaysia.
• (10) Four Japanese scientists—Professors M. Uda, H. Nitto and Y. Sachtory of Tokyo University, and Professor M. Egochi of Tohoku University—are co-operating with thirteen Australian scientists in an underwater survey of the Great Barrier Reef and a section of the Continental Shelf off the eastern Australian coast. A scaled model survey is also being made of the Andamans and a study made of the crown of the Thamal reef fish which has devastated areas of living coral along the Queensland coast. The Japanese deep-sea submarine exploration vessel Fumari and its mother ship Fumari are being used for the purpose. This picture was taken aboard the Fumari; Australian geologist Mr. Peter Davies (in checked shirt) watches as preparations are made for taking samples of ocean bed sediments.

• (11) Lieutenant-Colonel Muhtarono, of an Indonesian anti-aircraft battalion based on Java, (left), is one of sixteen officers from twelve overseas countries who have been attending the 1965 class of the Australian Army Staff College at Queanbeyan, Victoria. The officers are from Britain, Canada, Ceylon, Fiji, India, Indonesia, Malaysia, New Zealand, Pakistan, the Philippines, Thailand, and the United States. Fifty-four Australian officers are also taking the course, which aims to train organizing executives for modern armies: one of the Australians, Major L. Barfoot, is at right. Several of the overseas officers are graduates from their own staff colleges, and at Queanbeyan they were expected to make major contributions to the training programme. Colonel Muhtarono has had distinguished predecessors among Indonesian officers at the Australian Staff College: one of them is Brigade-General Sarwo Edi Wibowo, now commander of the Indonesian forces in West Irian.

• (12) Dr. Chan Kim Fatt, of Seremban, Negri Sembilan, and Miss Chew Xing Long, of Kota Bharu, Kelantan, Malaysia, were married recently in Melbourne, and the picture shows them after the ceremony. The couple met at the University of Melbourne, where Dr. Chan graduated in medicine last year and Miss Chew completed a B.Sc. degree and a postgraduate course in education. Since Miss Chew's father was unable to attend the wedding, Mrs. K. Wedell, who had been Dr. Chan's landlady for over five years, gave the bride away. Dr. Chan hopes to become a resident doctor in a Kuala Lumpur Hospital, and his wife to become a teacher.

• (13) Mr. Tawiputh Damnak, assistant chief of the instrument division of the Thai Meteorological Department, Bangkok, is spending a year in Melbourne receiving further training. At the headquarters of the Australian Bureau of Meteorology he is taking a course in meteorological instruments and surface observations. The picture shows him (left) discussing a data logging system with Mr. D. Henderson, of the Melbourne Weather Bureau. The system was developed to make a large number of meteorological measurements very rapidly and frequently and to record the results on a punched tape for later processing by a computer. The system is used in studies of air pollution, wind and turbulence.

• (14) Professor A. H. Johns, Head of the Department of Indonesian Languages and Literatures in the Australian National University, is head of a seven-member Australian-Malayan team which is compiling an English-Malay dictionary to help those studying or needing to express themselves in Malay. The dictionary is intended for use by non-Malays studying the Malay language and also by Malays studying English. The project was sponsored by an anonymous donor and began in May 1962; it will involve about forty thousand to fifty thousand entries and is expected to be completed by the end of 1970. In the picture, Professor Johns is shown (right) with Mr. Zulkipli Salih, one of the three Malaysian assistants helping in compiling the dictionary. The other two are Momen Abdul Ghani Ismail and Shahnaz Ahmad. The pioneers of the dictionary project included Mrs. Betina Goetzen, wife of Australia's Prime Minister. Though officials have spoken of the project's value, it is not clear how much work has been done in the five years that the project has been in existence. The project is expected to be completed by the end of 1970, and the dictionary is to be completed by the end of 1972.

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At this group there is only one fall tide in the day. When the moon passed the meridian at 11 A.M. it was high water at 11 P.M. The tide rises 6 to 7 feet.
The Farthest Coast
The Farthest Coast

A SELECTION OF WRITINGS
RELATING TO THE HISTORY OF
THE NORTHERN COAST OF AUSTRALIA

Edited and with an Introduction by
C. C. MACKNIGHT

MELBOURNE UNIVERSITY PRESS
This book is the result of my reading some of the original sources for the history of northern Australia combined with some personal experience of travelling around its coast. I would hope that it might be a way of sharing some of the pleasure and interest that I have derived from these activities. For this is not intended to be a work of detailed historical research, but a means of presenting some idea of the story of the area's past, particularly to those who now visit or live there. It is a past that does not lack for good stories and I have attempted to find some of these, told in the words of those who had a part in them. Only a few of the passages selected are from really obscure sources, but the ordinary reader often lacks the opportunity to consult even the better known historical material.

Though the selections mainly concern actual voyages around the coast (and for my interests I make no excuse), the introduction also deals in some detail with the history of the coastal strip. This is partly because a knowledge of the pattern of development in that area is essential to understand the reasons why people sailed around it, just as to understand the beginnings of that development one must know something of the discovery of the area. More importantly, however, I have tried to provide a brief outline of events so that some overall impression of the history of coastal northern Australia can be
obtained. Many people in the north have asked me to recommend some general history of the area, but this has yet to be written. Nor can any help be got from histories of Australia as a whole. Even such an excellent book as Geoffrey Blainey's *The Tyranny of Distance* on which a number of my ideas are based, pays comparatively little attention to the northern third of the continent, and does not examine in detail the very distinctive way in which this most remote of all areas has been affected by distance. Yet this is a great improvement on other general histories of Australia, even the most recent, which manage virtually to ignore the remarkable and strikingly different story of northern Australia.

Perhaps neglect is better than the gross errors of fact and interpretation that are only too current. Children within sight of the very route that Tasman and Flinders sailed are taught that Captain Cook discovered Australia. A recent book by as good a historian as Marnie Bassett (*Behind the Picture*, Melbourne, 1966) manages thoroughly to mix up the early British settlements. All that can be done here is to suggest a broad outline and indicate a number of more specialized studies relating to the north. There is however very little interpretation in what has been so far written on the history of the region. If people disagree with the judgments and interpretations expressed here, I would feel rewarded if they were provoked to find the material to refute them.

There is a danger that in the absence of reliable information about the past, its lessons will be forgotten. It might seem that the main themes of this history are discouraging: persistent failure to develop, sometimes even defeat and despair. From the point of view of distant governments this may be the case, but this is to neglect the variety and diversity of northern society, the richness of Aboriginal culture or the economic success of most non-European enterprises. For above all, this is a distinctive history, not a remote variation of southern Australian history. Until one understands something about this history, one remains a stranger in the land. If the present and the coming generation are to overcome the feelings of neglect and alienation, the sense of wanting to belong elsewhere, that
Acknowledgments

But for the sustained encouragement of Mr John Mulvaney, this book would not have been produced. For this, as well as for his guidance and criticism over a number of years, I wish to express my gratitude. Mr Jim Allen and Mr Graeme Davison have also read a large part of the manuscript, and have improved it by their criticisms and suggestions. Dr T. M. Perry has kindly read chapter 2 and given me the benefit of his wide knowledge of Flinders. Dr A. A. Cense has been of great assistance in the preparation of chapter 9, and Mr L. A. Murray prepared an initial translation of the Dutch original of that chapter. Naturally however I am responsible for those shortcomings that remain.

It is not possible to name here all the individual people who have assisted me in many ways on my visits to northern Australia. They fall into many categories: missionaries, government officers, retired trepangers, Aboriginal informants, school teachers, mining personnel and many others; but all have helped in their various ways and for this I wish to thank them. In particular, I am grateful to Mr David Lindner and my various Aboriginal companions on a number of boat trips who enabled me to experience the frequently uncomfortable reality of voyaging in northern waters.

However much of the work for this book has been done in
libraries, and I am grateful to the following individuals and institutions for their assistance: Miss Carol Kiss of the Australian Institute of Aboriginal Studies, the Australian National University Library and the Australian National Library in Canberra, the Mitchell Library, Sydney, and the Archivist and staff of the Archives Department of the State Library of South Australia.

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Miss W. Mumford has drawn the maps and helped in their preparation. Mr D. Kerrigan and Mrs E. R. Wilkie have assisted with photography, Mrs L. White and Miss L. Howard with typing and various friends with proof reading. The Australian National University provided me with the opportunity, in the course of related research work, to visit northern Australia and has generously supported me in other ways. To all these, I am very grateful.

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Canberra, October 1968

C.C.M.
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Introduction

The history of Australia is, in its earliest stage and to a remarkable degree up to the present, the history of a society oriented towards the coastline of the continent.1 The richest agricultural and pastoral land (except for some irrigated areas), lies around the coast or along the headwaters of the rivers flowing inland. Even the Aborigines probably found more to hunt and gather beside the sea or in the better watered country of the coastal areas, so that their population was correspondingly denser in those regions. The earliest European settlements were founded and supplied from the sea and even today there is no really large city in Australia that is not also a port. For the immigrant exporters who established themselves over vast tracts of country, the port which shipped their exports and supplied their imported needs became the centre of government and culture. This tendency was reinforced as the aridity of the interior was slowly revealed. It was a cruel and bitter discovery for the land explorers of the continent.

Though the history of the various coastal settlements is mainly the story of the opening up and development of the lands behind the settlements, the essential first step has always been the exploration of the coastline itself, while in the later

1 The most useful maps for locating places mentioned in this Introduction are on pp. 10–11, p. 38, pp. 170–1 and p. 172.
stages also the exploration of the resources of the sea has often played a substantial, though neglected, part in the total story. However, by far the most important role of the sea has been in communications and transport. Contact with Europe or with other colonies, and indeed much contact within a single colony was, until the advent of the railway and even more of the aeroplane, almost exclusively by sea. Even today, bulk cargoes such as iron ore are transported by coastal shipping rather than carried across the barren centre of the continent.

The great ring of the Australian coast can be divided into four parts, each different in its geographical nature, its history of exploration and its subsequent development. Undoubtedly the most important of these parts is the coast of south-eastern Australia from the Queensland border to the Eyre Peninsula, including Tasmania and other adjacent islands. It is in this area, largely undiscovered by Europeans until the beginning of the nineteenth century and cut off from the eventful history of South-east Asia more by barren land than by sea, that the main action of Australian history has been played out. Beside the harbours of this temperate, fertile coast there grew up the cities of a derivative European civilization which, because of its isolation and the regrouping of its European settlers, could not help but become distinctive. The handful of dark people who had survived on shellfish and wallabies for thousands of cold winters were rapidly overpowered by the brightness of the light of civilization. The growth of European population and the spread of settlement are taken as tokens of success.

To the north of this area, along the east coast of Queensland up to the islands of Torres Strait—the larger part of the coast that Cook discovered—the story has not been dissimilar. The area is distinguished however by its warmer climate, much of it fully tropical, which from the very beginning discouraged attempts to mistake it for cooler lands. It is, moreover, well watered and comparatively fertile, and although shipping has been inconvenienced by the lack of satisfactory harbours and by the Great Barrier Reef, communication has been sufficiently easy to allow a thin strip of relatively dense settlement. Much of the population along the coast relies on tropical or semi-tropical agriculture, particularly sugar growing. The conversion of an incipient plantation system relying on cheap coloured labour to a pattern of European small farmers is a unique achievement (whatever view is taken of the necessary subsidies), and it has overlaid the pastoral and mining base of the region with a sense of belonging not found elsewhere in northern Australia.

The western coast of the continent and the southern coast west of the Eyre Peninsula are very different: barren and dry. The Dutch had discovered the flat and desolate nature of the land in the seventeenth and eighteenth centuries and many subsequent visitors have echoed their complaints. Only in a pocket of temperate land in the south-west, where a moderate rainfall clothes the hills with more than the plants of the desert, has a decent foothold been established. For much of the nineteenth century it would have been better described as an unsure toehold. Though the population and certainly the prosperity of the west are increasing, its coasts will long remain some of the most sparsely populated in the world.

In this they will doubtless be exceeded by the northern coast of the continent. It is this fourth and last part of the Australian coastline and the area immediately behind it with which this book is concerned. It forms a geographical unit, distinguished from most of Australia by its tropical, monsoonal climate, and from the islands to the north and the east coast of Queensland by the poor quality of its soils and natural productions. Geographical similarity has been a major cause of a similarity of historical experience throughout the region, which even the century-old division among three far-away administrations has done little to disturb.

2 This coastal area should not be confused with the drier inland plains and tablelands of tropical Australia whose geography and history, though closely connected with those of the coast, are quite distinct. The region considered in the following pages is the coast itself and the coastal strip about 150 miles wide between Endeavour Strait on the western side of Cape York, and Broome on the northern edge of the Great Sandy Desert. Except in the rugged plateaux of the Kimberleys and Arnhem Land, this area is bounded on the south by the 500-foot contour. Though the geography of the region is far from uniform, a glance at the distributions of various climatic factors, vegetation zones and soil types will confirm the very rough unity that personal observation suggests.
THE FARDEST COAST

The history of the coast and its immediate hinterland is chiefly characterized by the failure to find a really profitable resource that could be exploited on such a scale that the problems of distance and climate could be permanently overcome. Even the mining and cattle industries are still more remarkable by their existence than their size. Many other schemes have been tried but none has succeeded in attracting more than a handful of people to make their home in this vast area, and many of these few have found no cause to stay. The sense of remoteness and the feeling of isolation remain today. However the small number of individuals involved and the many disappointments they have endured do not make the story less interesting or heroic.

In the beginning the Aborigines, who despite a remarkably efficient use of their environment remained in a network of small groups, can hardly have been aware of their isolation. Perhaps the sea did cast up a few strangers to bring new ideas and memories of near-by islands, but they were soon absorbed. Eventually, however, another type of visitor began to arrive and to dominate the history of the area. For more than 350 years the coast and its Aboriginal inhabitants have been subjected to visits by men from distant lands: Dutch, and possibly earlier voyagers, Macassans, British, French, Japanese and southern Australians. For all these people it has been a very long way to come, and this has influenced very strongly the way they have thought and behaved. Indeed for each group in a different way, this coast has seemed the most distant place to which they could come, the remotest sphere of their activity, their farthest coast.

The most important feature of the geography of the area is the marked seasonal climate. In November or December the clouds begin to pile up announcing the beginning of the Wet, and soon violent thunderstorms sweep in from the north-west across the pale, shimmering sea. The first storms are dry and do little to relieve the sticky humidity. Then the rain comes pouring down. The water tumbles off sandstone cliffs to form rivers which flood down toward the coast, spilling out over their banks to form a great, impassable morass. The ground brings forth green shoots which, with unbelievable rapidity, become tall tangles of rank grass.

Then in about April the wind begins to blow, cool and dry, out of the opposite quarter, from the south-east. The sun shines in a cloudless sky, and gradually the grass dries off and the swamps and billabongs contract. Soon the Aborigines begin to fire the standing grass, and the crackling blaze is fanned by the ever-blowing wind. Great plumes of smoke stretch out over the sea until they form clouds from which no rain can come. By October the land lies scorched and parched, thirsty for the first drops of the new Wet.

The pattern varies slightly in different areas, but the great division between Wet and Dry, between the north-west wind and the south-east, is the inescapable background to all activity. A glance at the latitudes in which the coast lies will show that the climate is fully tropical, but the influence of the sea keeps the temperature from becoming unbearably high. At the end of the Dry, fresh water may be difficult to find on the surface, but there are few places where it cannot be obtained by digging in the right spot. At other times of the year, it can be superabundant. Yet the coast has rarely been thought attractive and most voyagers have found its navigation arduous, wearisome and dangerous. The reasons are not hard to find.

For men who have come to this poorly mapped coast, often after months in the tropics in cramped and unhealthy ships, the general aspect of the land is unpromising. Much of the coast is low and fringed with sombre mangroves, laced with deceitful winding creeks whose contortions and sudden terminations have tried the patience of many. Behind the mangroves, bare salt flats or boggy plains stretch away to low bush. Elsewhere barren hills and contorted cliffs of eroded sandstone come right to the water, with little promise of fertility or comfort. Where a view into the interior is obtained behind the long, exposed beaches or above a sharp, red cliff, the sailor can see at a glance that the coarse lateritic soil is chiefly covered by an endless expanse of slender forest. If he lands, he may find a shadowy billabong full of drooping paperbarks and delicate water-lilies, but
the wealth of food available to those who know the land is still hidden. The casual visitor will find little with which to vary his ship's dull diet except turtle eggs, fish and a little game. For these he has to endure sandflies, green ants and, formerly, uncertain relations with the black possessors of the land.

Though the coast is not lacking in good harbours, only Port Darwin has reasonable access to the interior and none is associated with a major navigable river. In fact the rivers, which the early explorers so earnestly and so unsuccessfully sought as points of penetration, are generally unsatisfactory. None of them provided broad path to the interior that was hoped for and navigation has never got far beyond the tidal reaches. To the west of the shoal and murky waters of Van Diemen Gulf, the problems of coastal navigation are compounded by giant tides, culminating in fearsome waves and whirlpools amid the barren tangle of rocks and sandbanks, islands and inlets of the Kimberley coast. In the Gulf of Carpentaria the silted river bars and shallow waters which stretch for miles offshore are made even more difficult by an irregular and unpredictable tide.

Many of the early visitors who had had experience of the lavish islands to the north drew the sorry comparison, and even those schooled in the testing environment of the rest of Australia have often found the north a difficult challenge. Only the Aborigines, who have no other experience, and a few others, who have spent a lifetime learning, find here an environment that is generous and satisfying.

The first people to voyage along the northern coast of Australia were the Aborigines, or rather their remote ancestors who arrived some 25,000 years ago when the coast was far to the north of its present position. Yet there has always been some sea between the Australian land-mass and Asia, and all visitors came by sea until Leichhardt struggled north in 1845. Since the approach by sea is so easy, it is hardly surprising that there has always been intercourse of some kind between the islands of the Indonesian archipelago and the great coastline that forms its south-eastern boundary. Indeed the Arafura Sea still casts up on its southern shore coconuts, bamboo stakes and all manner of flotsam, including occasionally a boatload of castaways from the Tanimbar Islands, or New Guinea or any other of a multitude of islands.

The question of who first returned from over the southern horizon with stories of the coast he had found is obscure, and will remain so. If he were an Indonesian fisherman, he left no record. If he were the master of a questing junk from the great fleets of the Chinese navigators Cheng Ho at the beginning of the fifteenth century the record has been destroyed. It is difficult to believe the claims that some of the stories collected by the Portuguese scholar, Manuel Godinho de Erédia, concerning voyages from cast Java and the Lesser Sunda Islands, relate to Australia. They could as well relate to Antarctica or South America, but probably only concern the islands bordering the Savu Sea. If it can be convincingly shown that some of the cannon found off the Western Australian coast from time to time in various places really are more likely to have come from Portuguese, rather than Dutch, vessels, it may be that Portuguese ships were wrecked along the coast. If survivors ever escaped, no record remains. The most interesting of these cannon comes from Napier Broome Bay on the Kimberley coast.

It has long been agreed that the first recorded sighting of Australia by a visitor occurred in about March 1606 when the Dutch yacht, the Duyfken, coasting along the south coast of New Guinea, passed unknowingly across the western entrance of Torres Strait and continued for some 200 miles down the west side of Cape York Peninsula. Later in the same year the Spaniard, Torres, sailed through the strait which bears his name, but probably did not see more than a few small islands now claimed by Australia.

Over the next century and a half many Dutch vessels visited the north, west and part of the south coasts of the continent. Some were driven too far by the westerlies on their way to the Indies and were wrecked, or nearly, in the boiling surf of a barren shore. Others were sent to explore, to chart, to rescue survivors and to see whether there was any trade to be done and profit to be made. The reports were uniformly gloomy. The Englishman, William Dampier, confirmed their gloom on his two visits to the Kimberley coast at the end of the seventeenth
A less important branch of the industry was conducted along the Kimberley coast, but we do not know so much about this area.

Towards the end of the eighteenth century the Dutch East India Company found itself in greater and greater difficulties in Indonesia. It certainly had no money to waste on expensive voyages to lands which, as it already well knew, were barren and profitless. At the same time, British interest in the south-west Pacific was expanding rapidly. It was largely the technical improvement in the ability to fix a ship’s longitude that made it possible for the approach to come across wide oceans. First came Cook across the immense Pacific, but the point is equally valid for the ships of the First Fleet sailing across the southern Indian Ocean to found the new British penal colony at Sydney in 1788.

For the first time, northern Australia began to be visited by people from the south, and those people were largely British. In the early days of settlement in south-eastern Australia, the shortest route to India lay through Torres Strait and across the north coast. It was only the difficulty of negotiating the tangled reefs of Torres Strait that sent many captains on much longer routes around New Guinea. However the importance of the route figured largely in discussions of the north coast until well on in the nineteenth century, and several important results arose out of the real (or perhaps even more the projected) stream of ships passing from Sydney to India.

The first English vessels to visit the coast west of Torres Strait were mainly those of the explorers and naval hydrographers. In 1791 Lieutenant John McCluer of the Bombay Marine was returning to India after surveying the west coast of New Guinea and sighted New Year Island, which he named, and several other small islands fronting a vague coast behind. In the same year a group of convicts escaping from Sydney in an open boat briefly touched the coast of Arnhem Land before ending their remarkable voyage at Kupang. At the end of 1802 and in the first few months of 1803 Matthew Flinders began to dispel the uncharted confusion of Torres Strait, and then surveyed the coast around Arnhem Bay in amazing detail. Flinders was not able to return to complete his survey of the continent, and the work was taken up by others. In fact, only a few
months after Flinders gave up. the Frenchman, Nicholas Baudin, who had met Flinders off South Australia, sailed up the west and north-west coasts of the continent but totally failed to make any detailed or useful examination. The major part of the survey from Arnhem Bay to near the present site of Perth was the result of the four remarkable voyages of Phillip Parker King between 1817 and 1822. King’s discoveries provided enough information for a number of merchants to urge the British government to set up a settlement on the north coast from where they might trade with eastern Indonesia, particularly through the Macassans, thus circumventing the Dutch monopoly.

The outcome of this activity was the establishment in 1824 of Fort Dundas, the first European settlement in Australia north of the tropic of Capricorn. At the beginning of that year Captain J. J. Gordon Bremer sailed from England to Sydney, and after collecting a small group of soldiers and volunteer convicts arrived in Port Essington, a site which King had highly praised. Since no water could be found there at the end of the dry season, he proceeded to Apsley Strait between Melville and Bathurst Islands where a fort was constructed on Melville Island beside a small stream, and the settlement was named after a distant lord, Robert Saunders Dundas, Second Viscount Melville, First Lord of the Admiralty. Bremer soon departed, leaving behind a group of men who seemed to be well on the way toward establishing a small but thriving colony. It was never as easy as that. Almost immediately the wet season set in, bringing a trail of ills: fresh food ran short and little could be obtained from Timor; the resulting scurvy made more and more men unfit for work; relations with the Aborigines became more strained and the site did not appear to be as suitable as had seemed at first. Perhaps even the sandflies and green ants would not have been so bad had the settlement been able to do any trade with the Macassans, but not one prau sailed down the strait.

In order to overcome this last difficulty the Colonial Office decided to start a second settlement further east. In June 1827 Captain James Stirling set up Fort Wellington in Raffles Bay at the eastern end of the Cobourg Peninsula. Again, after a promising start, the situation was soon critical with forty-nine out of a total population of seventy-six sick with scurvy. In 1828 things got a little better and even a few Macassans arrived. However the early reports had convinced the officials in London that the doubtful advantages of such establishments were much less than the inevitable risk and expense, and in 1829 both settlements were abandoned, leaving the coast once more to the Aborigines and the Macassans.

The next attempt was rather more determined, and the reasons for this may be found in the different motives prompting it. As well as being a possible trading port for the Macassans, the new settlement was to be a port of call for the increasing volume of traffic between Sydney and India and, for the crews of ships wrecked in Torres Strait, a haven of refuge. It is also probable that the British wanted to forestall any French attempt to move into the area. In October 1838 the same man (now Sir J. J. Gordon Bremer) who had founded Fort Dundas fourteen years before, again sailed into Port Essington and this time satisfied himself that sufficient water was available. The settlement that was, as before, begun with what seemed every chance of success, lasted eleven miserable years. The name Victoria, which was bestowed in honour of the young Queen, is painfully ironic. This is the classic example of failure and defeat in northern Australia. The common problems of insufficient information and an inadequate technology produced, after initial careless optimism, bitter frustration and despair. In the days of sail, communication to or from Sydney took at least six weeks and, since ships were rare, a response might take as many months. On one occasion no European ship called for fourteen months. The Macassans came, but better knowledge of their activities and the commerce of eastern Indonesia would have shown that any hope of establishing a second Singapore was illusory. Worst of all, the vast (and still existing) problems of health, of building, of agriculture and of animal husbandry in the harsh environment of northern Australia were hardly appreciated, let alone solved. Even the climate was imperfectly understood and allowed for.
In some respects, however, the Port Essington settlement was successful. It did clearly demonstrate British claims to the region, though the rumour of French intentions was probably grossly exaggerated. When two ships of the French navy under Dumont d'Urville did arrive in 1839, the members of what was a strictly scientific voyage seem to have been genuinely amused at initial British suspicions, and relations were thereafter extremely cordial. Port Essington also served as a goal for several boatloads of people wrecked in Torres Strait, and in 1845 the overland explorer Leichhardt arrived from southern Queensland. Finally the relations with the local Aborigines were more successful than in any similar situation.

The only man who endured eleven years at Port Essington was the commandant, Captain John McArthur, and by the time the Colonial Office ordered the abandonment of the settlement in 1849 it must have been as clear to him as it was to the distant officials that the labour had been in vain. All that remains today to bear witness to these three British settlements are the roaming progeny of the buffalo, cattle, deer and ponies introduced by the settlers, and a few crumbling walls.

The Port Essington settlement was used as a base for completing the exploration of the north and north-west coasts, and here the next chapter in the history of the area begins. On a number of voyages between 1837 and 1843 Commanders J. C. Wickham and J. Lort Stokes in H.M.S. *Beagle* visited those stretches of the coast which were as yet imperfectly known. With these voyages, the task of initial exploration by sea was complete and that of detailed hydrography begun. Henceforth there were no major uncertainties in the outline of the continent. The economic and even the political development in southern Australia in the mid-nineteenth century, together with the expansion of settlement into the interior and the further discoveries of the land explorers, all contributed to build up the concept of Australia as a large, isolated and single land-mass. That is a rather misleading way of looking at the geography of Australia, for it ignores the coastal orientation of Australian settlement and it does not follow that the land-mass itself exhibits the same pattern throughout. Perhaps the repeated

failures of the British settlements should have provided a warning that the pattern of expansion established in southern Australia would not work in the north. It is doubtful whether many of the confident colonials had read the history of these failures.

In the early 1860s various factors combined to bring about new attempts to settle in northern Australia. By this time the land exploration of the north had begun to reveal the country behind the coastal discoveries. The reports on the country by those who had come by sea were for the most part brief, amateur and unenthusiastic. Only Stokes describes his rivers, the Adelaide, the Victoria and the Albert, with rapturous optimism, a point of view that those who came to settle along them found little sympathy with. The land explorers were perhaps more misleading. George Grey, Ludwig Leichhardt, A. C. Gregory and John McDouall Stuart had all described much inland country which seemed capable of easy development, and only Gregory had guessed at some of the difficulties, particularly that of the total contrast between Wet and Dry. The factor common to all these new attempts at settlement was the desire of the pastoralists of southern and eastern Australia for new and larger lands in an age of general expansion and optimism. No prospect daunted men who had seen early labours crowned with success and who enjoyed the general economic well-being of a decade of gold. They set off themselves, or sent off their sons, for distant pastures with trusting and hopeful expectations. Such men were to be sorely tried.

Victoria, as the richest and most optimistic of the colonies, was responsible for the bitter beginning of the period. In 1860 Burke and Wills set out from Melbourne to cross the continent. The expedition itself accomplished little of interest but, as the tragedy unfolded, search parties were sent from every side. To co-ordinate the efforts, the Victorian government sent Captain Norman in the steam vessel H.M.C.S. *Victoria* to the Albert River in the Gulf of Carpentaria, and the journeys of William Landsborough, John McKinlay and Frederick Walker relied on this base. The Wet of 1862 seems to have been very light, so that the exploring parties found travelling uncommonly easy and their reports were full of praise for the southern shores of the
Gulf. Stokes's eulogies of the area he had called the 'Plains of Promise' seemed to be confirmed. In the very next year, private parties from the recently settled areas on the east coast of Queensland were looking for land along the Flinders River and soon the rush was on. During 1865 large areas of land were taken up, stock (including thousands of sheep) poured across from Bowen and other east coast ports, and private initiative erected a pub, a store and a few tents which were dignified with the name of Burketown. Even the farthest corner of the new colony of Queensland seemed to be well suited to the expansion of the pastoral industry on a scale for which ready finance was available and which was becoming less possible in the south.

When the explorer Landsborough was appointed police magistrate of the new district in 1866, the first wool had been shipped and in the same year a boiling-down and meat preserving works came into operation at Burketown. By the time he arrived, however, things were changing. The first disaster was an epidemic of fever which carried off a large part of the rowdy population of the town. Landsborough immediately moved as many of the people as he could to Sweers Island and, after a search, fixed on Normanton, fifty-eight river miles up the Norman River, as the site of a new town. In 1867 the effects of a general financial crisis in Queensland began to be felt, so that finance was not available on the scale of a year or so previously. Above all, the depression prevented the government from providing those services, particularly in transport, that such remote areas required. The high cost of getting supplies in and production out over such great distances began to be sorely felt. Things got steadily worse during the next two years and were capped by the disastrously heavy Wet of 1870. From the low point of that year things began to improve, but very gradually and much more cautiously. In 1875 the site of Burketown, which had been deserted since 1870, was reoccupied and from then on acted as a point of supply for the scattered stations to the west. Normanton in the east was soon to gain the added boost of several small mining booms. Occupation was permanent, but the district was hardly flourishing, and many difficulties and disappointments had yet to be surmounted.

The mid-1860s also saw various other attempts at settlement around the north coast of the continent. Inspired by the enthusiastic descriptions of Grey, a group of squatters' sons and perhaps some disappointed selectors from the Western District of Victoria banded together as the Camden Harbour Pastoral Association. In 1864 a party of about 140 men, women and children arrived on the barren shores of Camden Harbour in the Kimberleys. They were the bravest of those moving out of Victoria at that time. Early the following year a Government Resident and other officials were sent up from Perth, and a number of small exploratory expeditions were made inland to look for better land. It was all to no avail. The delicate merinoes died as quickly as the horses on the rank but useless grass. By the end of 1865 everyone was delighted to abandon an obvious failure.

A similar fate befell a Western Australian attempt to establish a pastoral settlement at Roebuck Bay in 1865, involving an ugly clash with the Aborigines. The settlers soon retreated further south. Various other fleeting visitors came to the Kimberleys about this time, searching for pastures or gold, but the permanent settlement of the area did not begin for another twenty years.

It was in South Australia, however, that the most ambitious, perhaps even foolhardy, activity originated. Stuart's repeated attempts to cross the continent and eventual success in 1862 were largely financed by pastoralists looking for more land. His optimistic reports were the return his backers had hoped for. As early as 1860 Governor MacDonnell suggested to the Colonial Office an extension of the territory of South Australia to the north coast. All he received then was an isolated strip which existed between South Australia and Western Australia, thus completing the modern outline of the State. Perhaps it was only this part of his request that he had really wanted. When, two years later, Stuart had returned from the shores of Van Diemen Gulf in triumph the next governor, Sir Dominick Daly, seemed to have a stronger case. In fact the whole matter of the control of northern Australia was already under discussion as a result of a suggestion by the governor of Queensland that that colony
annex vast new areas. The Colonial Office raised sensible objections and the Queensland cabinet was less enthusiastic in its demands than the governor. South Australia was less wise, and followed up Stuart's reports with applications for land and talk of an overland telegraph to link the southern colonies with Britain. In 1863 the Colonial Office granted the annexation of the Northern Territory to South Australia, but remembered to give Queensland the strip which now includes Mt Isa and Cloncurry. Thus the present boundaries in the area were fixed.

The land the South Australian pastoralists wanted was in the far north, nearly 2,000 miles away across difficult country, but the rivers which watered it ran into a sea, the coast of which was known in some detail. The only practical plan was to begin settlement from the coast. The finance for what amounted to a subsidiary colony being far beyond the capacities of a colony as small as South Australia, a complicated system of land order sales was begun in both Adelaide and London with no idea of the final location of the blocks sold. The object was to reproduce in the north South Australia's pattern of small farmers and large pastoralists. In April 1864 the first party, under a Government Resident, B. T. Finniss, sailed from Adelaide to find a site for a settlement and to survey the land that had been largely sold already.

The major problem confronting the party was the selection of a site with suitable land and a safe port. It seems to have been assumed that this necessarily meant choosing between various rivers, and the two major possibilities that had been investigated in any detail were the Adelaide and the Victoria. The Adelaide had been highly recommended by Commander Stokes who particularly noted the agricultural potential of the upper reaches. The Victoria had a channel blocked by shoals and bordered near the coast by barren hills. Stokes's enthusiasm for the Victoria had been tempered by the observations of A. C. Gregory's party which started overland from there in 1855-6. Finniss had been ordered to visit the Adelaide to begin with and then to reconnoitre other possible sites. He briefly examined Port Darwin and Port Patterson, but despite the opinions of his officers returned to the original site. The decision to establish a settlement at Escape Cliffs in Adam Bay near the mouth of the Adelaide was of doubtful wisdom, a result of totally inadequate geographical information for which Finniss was not wholly to blame. The swampy surroundings of the site and the difficulty of finding good land to survey were used as weapons in the arguments of those officers and men who represented the attitudes and opinions of the Government Resident, and that meant nearly everyone. The second party arrived from Adelaide late in 1864, bringing J. P. Stow as special correspondent for the South Australian Advertiser and agent for a number of the land order holders. Things got steadily worse as the wet season set in, and when a ship arrived in April 1865 almost half the population chose to leave for Singapore. Stow and six companions chose a more direct route back to Adelaide, taking with them savage denunciations of Finniss's administration and judgment. The violence of these attacks was matched by the weakness of the South Australian government in dealing with the crisis.

Their solution was to send an order recalling Finniss and appointing J. T. Manton, his second-in-command, as Acting Government Resident. The same steamer took north the explorer McKinlay to report on possible new sites. Though he arrived at Escape Cliffs on 5 November, McKinlay did not set out until January 1866, an interval during which it was shown that Manton was no easier to get on with than Finniss, and the wet season began in earnest. Six months later McKinlay struggled back having nothing to tell except the difficulties of exploring in the Wet. At least Finniss had been able to visit and confirm the unsuitability of the Victoria before he left. However McKinlay in a short boat trip soon damned the Daly and was unimpressed by Port Darwin. Towards the end of 1866 Manton made several brief trips from which he concluded that Port Darwin was the most favourable site for a settlement, but on 22 December orders arrived to abandon Escape Cliffs and return to Adelaide. In less than three weeks, everyone was away. Some part of the blame for the whole fiasco rests with all the
major participants, and perhaps most with the government that began and continued the affair in such ignorance of the realities of the situation.

However it was still necessary to find some land for those who held land orders, and in 1867 an exploring expedition was despatched under Francis Cadell to visit a number of sites and recommend the most suitable. He was directed first to the north coast of Arnhem Land where he spent two months exploring the country about the Liverpool River. This area he recommended with a number of sensible reservations. He also visited the Roper and Victoria Rivers, both of which he found quite unsuitable. It was an efficient piece of work, but it might have been of more use before any attempt had been made at settlement.

Although Cadell had just spent seven months exploring in northern waters and produced businesslike reports, his conclusions were ignored by a dithering government with a crisis on its hands. The land order problem had erupted. One of the original conditions had been that purchasers should take up their holdings within five years, but by the end of 1867 time was running out and it was already claimed that the failure of the Escape Cliffs settlement justified the return of the money paid, with interest. In an effort to gain time the government offered to double the amount of land bought and extend the conditions for another five years. In a previous moment of indecision, the government had called for private tenders to complete the survey, and in 1868 it tried again. The tenders varied greatly in price, and the Surveyor-General, G. W. Goyder, when asked for his advice, suggested that he could do the job for a sum considerably less than the only worth-while tender, but including a £3,000 bonus for himself. He was set to work to demonstrate his proposal.

Goyder and his party arrived in Port Darwin on 5 February 1869. The Surveyor-General had made up his mind about the best site for a settlement and his decisions were not to be quarrelled with. On 11 February the town was designed, and by 2 March town allotments were ready for selection. By the end of August all the necessary surveying work had been completed and those selectors who had elected to wait and double their holdings had been provided for. Those who demanded their money back eventually received it after protracted legal procedures, to the great financial embarrassment of the South Australian government.

The new town, which was originally called Palmerston (a singularly unimaginative and unpropitious name considering that it had also been used for the town-site at Escape Cliffs), remains today as the only major settlement along the entire coast of northern Australia. (Darwin was adopted as the official name after the Commonwealth assumed responsibility for the Territory.) South Australia had intended its attempts, both at Escape Cliffs and Port Darwin, to be pastoral and agricultural settlements. In practice, Darwin has more closely fulfilled the expectations held for the early British settlements. It has served as a focus for the establishment of European control over the area and has ensured that that control has been Australian. It has acted as a base for exploiting the local non-pastoral industries such as mining, pearl-fishing and general trading, though there has been little contact with eastern Indonesia. Despite the decline in the importance of the shipping route across the top of the continent, for nearly a century Darwin has played a key role in Australian telegraphic and later air communications with Europe. It has had, and still has, an important part in Australian defence strategy. The pastoral industry has always played what part its generally parlous condition has permitted in the life of the town, but a long series of unsuccessful agricultural schemes have made few breaks in the virgin scrub that even today comes close up to the new suburbs.

By 1870 some permanent European settlement, after many difficulties and failures, had at last been established at various points in northern Australia. The progress and extension of this early pattern of settlement have been uneven and slow, so that after nearly a century the region remains remarkably underdeveloped and supports a population, of all races, so inconsiderable that a few hundred constitute a notable town. The only industry which has been persistently maintained in the region is the pastoral industry, devoted almost entirely to the production of beef cattle. Its history, beset with natural disasters, price
fluctuations, diseases and a host of other difficulties, has been relatively thoroughly studied, but its persistence tends to obscure other less enduring and less publicized aspects of the total history of the region. In general, the best cattle land is away from the coast and, except for the role of some settlements such as Burketown or Wyndham in the provision of supplies and to some extent in the export of cattle, the development of the coastal areas has depended upon the exploitation of other resources. The fact that the progress of this development—or rather its failure—is hardly encouraging does not mean that it should be forgotten.

The first two decades from 1870 saw development and optimism in many fields, the like of which has not been felt since. The first major achievement was the completion of the Overland Telegraph to Darwin in 1872, linking southern Australia with the rest of the world. Although there was some consolidation and expansion of pastoral activity, the most important factor in the extension of services was a number of mineral discoveries. There was great publicity and a small rush to the goldfields south of Darwin in 1872 and 1873 and though the fields never developed as hoped, they did continue to exist into this century. Throughout the eighties and nineties the value of their production far outstripped that of any other industry, including the pastoral industry, in the Territory.

In the Gulf country, copper had been discovered at Cloncurry before 1870 and worked slightly from then on, but in the mid-1880s there was a gold rush to Croydon, east of Normanton. Mining was largely responsible for the construction of two railways. A line joining Darwin to Pine Creek was finally built in 1887–9 after many false hopes and in 1887 another railway was begun to link Normanton and the coast with Cloncurry. However such was the sudden enthusiasm for the Croydon goldfield that the railway was literally diverted there. Had Cloncurry been served by a port on the Gulf, the pattern of communications in that part of Queensland might have been very different today, and Normanton would have been saved from its steady decline as the gold was worked out. Nothing demonstrates so clearly all the advantages enjoyed by the east coast over the Gulf coast as the way in which all the many mining fields in north Queensland from the Palmer to Mt Isa (with this partial exception of Croydon), have relied on communications to the east.

In the Kimberleys the report of Alexander Forrest’s expedition of 1879 provoked the settlement by sea of the West Kimberley area by large-scale sheep pastoralists from further south in Western Australia. The town-sites of Broome and Derby were both declared in 1883. These settlers soon met cattlemen overlanding from Queensland to the East Kimberley area, like the Duracks who arrived on the Ord River in 1885. This division between sheep and cattle has been maintained in the area up to the present day. As early as 1881 when the first sheep arrived in Beagle Bay for Yeeda Station, indications of gold had been found. Thereafter, a number of strikes, such as one at Hall’s Creek in 1884, continued to attract miners, many of whom walked across the cattle route from Queensland. Wyndham was first laid out in 1886 as a port for the goldfields, and the miners provided a local market for the pastoralists.

Attempts to establish tropical agriculture, mainly around Darwin, raised many hopes, but little more. In the late eighties the period culminated in a spectacular and highly speculative pastoral boom throughout the north with stations leased, and some briefly occupied, even in the heart of Arnhem Land. In the same way that the resources of the land began to be developed, the sea and the coast began to attract attention. Though steamers to the north were not particularly frequent, they were at least regular, and port and navigation improvements were begun. Derby, for example, acquired a jetty in 1885 and South Australia maintained a surveying vessel in northern waters for many years. Some pearlshell was found close to Darwin at various times, attracting a few boats from Queensland, but nothing much came of the discoveries. On the Western Australian coast, the guano deposits on the Lacepede Islands were being exploited in the 1870s and Forrest met pearlers at Beagle Bay in 1879. Ten years later the new town of Broome was coming to supersede the earlier centre of the pearling industry near Roebourne.
For some years before 1880 Darwin had been a free port, presumably to encourage trade and development, but in that year a partial tariff was re-imposed. In 1882 it was decided to levy full South Australian Customs duties. This provided some useful revenue, though for an out-port such as Borroloola whose natural connections were with Queensland, if with anywhere, the decision must have seemed more than usually unreal. It was also decided to collect duties and licence fees from the Macassan trepangers who continued each year to visit the Arnhem Land coast. A European trepanger was appointed to collect the money, some £600 per year, first at his camp near the old settlement in Port Essington but later, since that was difficult to reach, at a revenue station in Bowen Strait. It is clear that the profits of the industry were fairly comfortable, though it does seem to have been slowing down during the century; certainly the heavy new impositions hastened its decline. Occasional inspections along the coast and information sent on by the Dutch authorities in Macassar ensured that few captains escaped paying the duties and licence fees.

These early years saw the creation of a type of society which can only be called Capricornian, after Xavier Herbert’s magnificent novel, *Capricornia*. Though restricted to a small area of the Northern Territory, and dealing with a later period, the book conveys an authentic impression of the strange and varied nature of society as it became established throughout the north. Not only was the European population sparse and isolated, but the people felt acutely that the main forces of civilization and government, to which they really belonged, lay elsewhere. As men became accustomed to living on the frontier, their delusions of importance and neglect became articles of faith. The society was early distinguished by the variety of races who arrived by an infinity of chances.

The pearl divers of Western Australia were mainly Japanese or Malay and eventually numbered several thousand. In the Northern Territory much thought was given to the importation of Chinese or Indian coolie labour to perform the work, particularly on large plantations, which white men were unwilling to believe themselves capable of sustaining. In 1876–7 a scheme to import Japanese agricultural labourers to the Northern Territory very nearly succeeded. However when some Chinese did arrive in 1878 they mostly found employment on the goldfields and later many worked on the Pine Creek railway. By 1890 they far outnumbered the European population and added a distinctiveness and variety to north Australian society which subsequent restrictions have been unable to erase. By far the largest part of the population throughout the north were Aborigines, but many of these had little or no concern with the settlers. Where there was contact, the Europeans usually dominated with their preconceived ideas; when Aborigines were inconvenient or hostile, they were ‘niggers’; as useful adjuncts to European schemes they were ‘boys’. But whether niggers were shot or boys paternalistically protected, the flame of civilization scorched, and often totally consumed, the delicate fabric of Aboriginal life and culture.

These twenty years of comparative success were followed by a general stagnation that lasted, with only brief interludes of excitement, up to 1941. Little development of permanent worth was achieved in fifty years. Certainly the external influences of major depressions and a demanding war did not help the north, but these were compounded with poor government, natural disasters and the usual problems of distance and the failure to discover any really profitable resource in the area.

The cattle industry was hard hit by droughts, by the gradual spread of the cattle tick from Darwin and by uncertain prices. Mining production declined as the Chinese were forced out and the technical problems became more difficult and worse managed. To begin with, things were little better around the coast. By 1907 the South Australian government had effectively prohibited the Macassan trepang industry in its enthusiasm to promote European enterprise and to protect the unsuspecting subjects of the British Crown in furthest Arnhem Land. The few Indonesians who sneaked down to the Kimberley coast after that had, on at least one occasion, to suffer the enterprise of a European who paraded as a Customs officer and made off with the takings. No European trepanger, however, managed to acquire the skill, the knowledge, the outlets, the labour or
the finance of the Macassans. Some tried to step into the breach their government had created for them, but none prospered. The turn of the century was a colourful, even lawless, time and a number of characters such as the buffalo shooters Paddy Cahill of Oenpelli or Joe Cooper of Melville Island are still vividly remembered. But there were even more, working trepang on distant beaches, diving for pearlshell in an empty sea or fossicking deep in the bush, who are forgotten.

In 1911 South Australia finally rid herself of the troublesome and expensive Northern Territory, which came under direct Commonwealth control. The Commonwealth took over with great hopes, brave words and a flurry of scientific experimentation. But once again, an attempt to find suitable basis for agriculture came to nothing and the cattle industry, though briefly stimulated by high war-time demand, failed to make continued progress. One solid gain of this period was the establishment of a State government meatworks at Wyndham in Western Australia in 1919, but a similar private scheme in Darwin foundered on the rocks of poor management and remarkably bitter labour problems. Schemes such as drilling for oil on Elcho Island in the early twenties were more obviously doomed to failure. Above all, Melbourne was as remote a centre of administration as Adelaide and, despite the early burst of government interest, things eventually returned to the neglect and torpor of the previous administration. The most concrete result of the Commonwealth effort was the extension of the railway from Pine Creek to Birdum, but that was as far across the continent as it got, and the line continued to make a loss. Some useful work was also done improving the marine charts, which still relied heavily on the first surveys of the explorers. The surveying vessels H.M.A.S. Geranium and H.M.A.S. Moreshy spent a considerable time on the approaches to Darwin and at a number of other scattered locations.

One industry, with a rather different history, was pearling. After some reverses in the nineties a considerable fleet came to operate along the Kimberley coast mainly from Broome, and a few lugger began to work in Northern Territory waters. In the years immediately before World War I more than 3,000 men were employed, mostly Asians who were specifically excepted from the White Australia policy because of the strenuous and dangerous nature of the work. The Kimberley industry was considerably larger than that operating in Torres Strait, but the story of both is remarkably similar. The war completely disrupted the markets for pearlshell, but in the twenties there was some recovery. However the local industry gradually declined during the thirties as a result of the depression and competition from Japan itself. Part of this competition came from Japanese fleets operating around the Australian coast outside (and sometimes inside) territorial waters.

The only field in which a degree of real success has been achieved, despite some shattering reverses, and despite the generally depressing history of the period from 1870 to the present day, is Aboriginal relations. In the relatively well-populated areas around the coast there have been few cattle stations to dispense their rather uncertain benefits. The present situation is almost entirely the result of the labours of missionaries who have steadily expanded their efforts until they formed a chain of settlements, clustered according to denomination, right around the coast. As early as 1878 Father Gibney from Perth unsuccessfully tried to establish a mission at Disaster Bay in the Kimberleys. Twelve years later, as Bishop Gibney, he cut through the bush from Derby to establish the Beagle Bay Mission with Trappist Fathers (later Pallotine Fathers). In the eighties and nineties the Jesuits tried to found agricultural settlements for Aborigines at Rapid Creek near Darwin and on the Daly River, only to be defeated by lack of resources. Others were less fortunate and there was a steady expansion by various denominations. Men like the Reverend Nicholas Hey of Mapoon (1891) or Bishop White who founded missions on both the Mitchell River (1905) and the Roper River (1907), or Bishop Gsell of Bathurst Island (1911), or the Reverend James Watson of Goulburn Island (1916) were pioneers indeed, and their successors have not been unworthy of them. By the end of the thirties virtually all Aborigines had been contacted, so that today all coastal people are concentrated on missions or government settlements. It is worth noting that no such enter-
prise has ever been economically self-supporting. The work has been greatly assisted by the creation of considerable Aboriginal reserves, the largest of which, the Arnhem Land Reserve, was proclaimed in 1931. Although these reserves have often been violated, their establishment did commit the various governments concerned to a policy of protection which formed the basis for the present policy of advancement. By 1940 the decline in population had been halted and responsible opinion was beginning to display some sympathy. It had taken almost seventy years to transform a state of mutual antagonism, with armed attacks by both sides when opportunity offered, into a situation with the promise of a more fruitful partnership.

The careless languor of northern Australia was rudely shattered by World War II. In 1942 the Japanese in eastern Indonesia bombed Darwin, Katherine, Derby, Broome and other settlements, and an invasion was expected. To meet this emergency, military control was imposed, considerable numbers of troops moved north and many air bases were established. Even recently-contacted Aborigines were organized into commando units. The invasion never came, but the great activity of the war had two important results. It provided the new roads and airstrips which form the basis of the present communications system, and it implanted the idea that Australia’s defence was connected with northern development.

The post-war years saw some progress as conditions returned to normal. The exploitation of some mineral discoveries, such as uranium at Rum Jungle as well as the reopening of the iron ore deposits on Cockatoo Island in Yampi Sound which had been first developed just before the war, stimulated activity in some areas. However the last decade has seen a number of worthwhile advances. Though another major agricultural experiment in commercial rice-growing near Darwin has come to nothing, the scheme to grow cotton and other crops under irrigation on the Ord River may turn out to be economically viable. If so, it will be the first successful agriculture in the region. The beef roads scheme may solve some of the problems of the cattle industry. Certainly the new roads and extensive new mapping operations will improve the defences of the area.

Widespread mineral prospecting has found a number of new fields, of which several—bauxite at Weipa, manganese on Groote Eylandt and iron ore at Frances Creek—are already being worked and have resulted in new towns and the extension of port facilities. However, the advanced technology with which these discoveries have been exploited means that the population associated with them will always be small. Larger settlements may be established to operate processing plants if the McArthur River and Gove Peninsula projects are developed. All these mining ventures depend substantially on Australia’s new trading pattern with Japan. The Japanese are also responsible for smaller projects such as providing the technical skill in starting several pearl-culture stations around the coast.

In retrospect, the greatest problem and the greatest opportunity of the seventies may prove to be the emergence of the Aborigines as an effective work-force with increasing numbers, increasing training and increasing expectations. The full incorporation of considerable numbers of Aborigines into the social fabric of northern Australia cannot be far distant, and is now being given the powerful impetus of some significant government welfare work. The emergence of this new work-force may well have social consequences which will provoke some unexpected economic developments. After all, the Aborigines are still the only people for whom life in the north is not a sojourn in a far place, but natural and normal. Their demands will be in the search for a better life in the area, not for the means to enjoy holidays or retirement ‘down south’ or further afield. They are at the centre of their world, not on the fringe, and their influence may be decisive in forming a unified but diverse society for which this coast is a familiar home.

The writings of those who have made voyages around the coast of northern Australia reflect the reasons for their voyaging which, in turn, are products of the background from which the men came and the current state of knowledge about the coast.

The Dutch, who provided the earliest accounts, were servants of a tight-fisted Company whose aim was to pay dividends. The most persistent theme in the instructions issued to ships coming
to Australia was the search for profitable trading opportunities, and if the result also included an extension of geographical knowledge, that was a welcome bonus. The captains knew their masters were hard men, and in their generally laconic reports the fear of disapproval is more apparent than the fear of shipwreck. Yet we must remember that these were men far from any possibility of help, on difficult and unknown coasts in vessels which were small, ungainly and unhealthy. Their reckoning of latitude was only an approximation and that of longitude sheer guesswork. In these circumstances, their rapid coasting with a sketch-map drawn from the masthead was sufficient to confirm the unpromising impressions of their cautious visits to the land.

The voyage of the Investigator was a complete contrast. Flinders and his officers were men of science in an age when their clarity of observation could be uncluttered by the confusion of related information. They rightly saw themselves in the tradition of Cook, Bligh and Vancouver. The chief purpose of the voyage, and the work undertaken by Flinders himself, was the preparation of charts of an unknown coast. The accuracy achieved was the result of recent advances in technology, particularly the improvement in the performance of chronometers allowing much more accurate determination of longitude, allied with the rigour and care of Flinders’s observation. There is an objectivity and precision about the work of all the scientists and artists on this voyage, Brown the botanist, Bauer the botanical draughtsman and Westall, the landscape artist, that appeals to modern taste. Flinders’s narrative is distinguished by a lucidity and elegance that are his alone. None of the other authors we are concerned with writes so well, despite his disclaimer in the preface to A Voyage to Terra Australis.

It will perhaps be inferred that the perfection of the Atlas has been the principal object of concern; in fact, having no pretension to authorship, the writing of the narrative, though by much the most troublesome part of my labour, was not that upon which any hope of reputation was founded; a polished style was therefore not attempted, but some pains have been taken to render it clearly intelligible. The first quire of my manuscript was submitted to the judgement of a few literary friends, and I hope to have profited by the corrections they had the kindness to make; but finding these to bear more upon redundancies than inaccuracy of expression, I determined to confide in the indulgence of the public, endeavour to improve as the work advanced, and give my friends no further trouble. Matter, rather than manner, was the object of my anxiety . . .

Phillip Parker King, who took up Flinders’s unfinished task, was probably his equal as a hydrographer and explorer, but his writing lacks his predecessor’s passion and precision. King was a more prosaic character and did not have the same obsession with his task. As knowledge expands, some of the wonder and excitement, though certainly not the danger, go out of the discovery of the continent. Yet perhaps it is only in comparison that the narrative suffers. In itself it is a clear and almost over-concise account of some remarkable adventures. King himself was a rather superficial observer as a scientist, but his botanist, Cunningham, performed really useful work.

The tradition of the great voyages of maritime discovery in the late eighteenth and early nineteenth centuries developed in two directions. The one we will be chiefly concerned with here is the gradual specialization and particularization of effort as knowledge and contacts increased in a limited area, but it is worth digressing for a moment to examine the other. This was towards the large, wide-ranging scientific voyage on which the contribution of botany, zoology, geology and other specialist studies were as important as detailed hydrographic results. With characteristic method the French had always sought this completeness. Baudin’s expedition at the time of Flinders’s Investigator voyage had made an early attempt at this type of enterprise, but dissonance among the various scientists and officers had frustrated many of the benefits that might have been expected from its comprehensive interests. No such criticisms can be
held against the two voyages commanded by Dumont d'Urville. The main publication of his second voyage between 1837 and 1840, during which he visited northern Australia, runs to thirty volumes, covering in exhaustive detail all facets of the work achieved.

In general the British were less systematic and all-embracing, though throughout the nineteenth century numerous voyages combined exploration and hydrographic surveying, with equal or greater attention being given to various natural sciences. What had changed since the days when Cook and Banks sailed to observe the transit of Venus was the relative importance of different aspects of the work and the emphasis on detailed and technical hydrography of sea routes rather than the general discovery of new lands. One of the earliest of these new British voyages and the first to visit northern Australia was that of H.M.S. Fly under Captain Francis Blackwood between 1842 and 1845. The captain was specifically advised in his instructions against ‘running surveys, in which much work is apparently executed, but no accurate knowledge obtained’, and carried out specific hydrographic projects mainly associated with the passage through Torres Strait. Much specialized work was done by the geologist aboard, J. B. Jukes, and the zoologist, John MacGillivray. When Jukes came to write a general account of the voyage he abandoned the conventional chronological narrative and wrote a popular travel book describing, in a style his Victorian readers thought appropriate, only the less well-known areas visited. The complications of the programme demanded by the scientific work meant that a mere rewriting of the vessel’s log book would have given little idea of the significant results of the voyage. MacGillivray was soon employed on another similar voyage to northern Australia, this time on board H.M.S. Rattlesnake along with two other naturalists, one of whom was no less than T. H. Huxley. The general account of the voyage was to have been the joint work of the captain, Owen Stanley, and MacGillivray, but on the death of the former the whole task fell on the latter.

Other such expeditions from time to time visited northern Australia, such as that of H.M.S. Alert in 1883. The most recent example was the multi-purpose American-Australian Scientific Expedition to Arnhem Land as late as 1948. In general, the main records resulting from such expeditions are severely technical and there is little that is important or original in a general narrative of their proceedings.

The other development of the early voyages was much more ordinary. As the nineteenth century progressed and the main task of exploration was completed, many ships began to sail around the coast. Some of these could still be regarded as voyages of discovery, but they were very localized and had some specific purpose in view. An increasing proportion, however, were simply routine, as the intrusion of European settlement and administration of the region and the attempt to exploit its few natural resources got under way. Because distance and unfamiliarity lend romance, and the absence of normal facilities adds unusual difficulties and danger, some people recorded their experiences. Others had to account for their actions to distant governments. Many of these later voyages around northern Australia have been quite as hazardous as any of those of initial discovery.

The work of the Beagle under Wickham and Stokes can be equally well regarded as the last of the classical voyages of discovery along the north coast, or the first of those with a number of specific local hydrographic projects to complete. Though Stokes in his narrative likes to cast himself in the role of the intrepid explorer, he did have a base at Port Essington and even he himself saw much of his work as a prelude to extending the range of settlement. His account of his experiences is interesting enough, but one sometimes suspects that the reality may not have always fitted so neatly the Victorian concept of great moments in exploration.

The various settlements during the sixties began the process that Stokes had expected. It seems an accurate reflection of the feelings of the majority of those who had the task of establishing these settlements that none of the three extracts relating to Escape Cliffs, despite differences in aims and style, suffer from an excess of optimism about northern Australia. Stow was a professional journalist, so that it is little wonder that his writing
does not lack verve and colour, particularly as it reinforces his case against Finniss. He does have a genuinely exciting story to tell, and manages to impart something of the excitement. Captain Frederick Howard, as a contrast, is submitting a severely factual report to the government. His aim is to account for himself and his vessel during the time in the north, and this he does succinctly and without flourishes. The situation is described in sufficient detail to explain the reasons behind his decisions, although he also manages to include any general information that he thinks may be of interest. Altogether, it is an admirable report. It is difficult to assess R. H. Edmunds's journal with the same confidence. However, as one man's view of an exceedingly demanding expedition, it does not read badly and there is no reason to suppose that any major points are excessively distorted. Certainly this would not be the first or the last expedition to northern Australia on which there has been a certain amount of disension, but with the benevolence of hindsight the rancour is usually edited out. Whatever the true facts of the case, this is an exciting and intimate account of very remarkable proceedings.

The writings of Alfred Searcy fall into a very different class. Though, as Sub-Collector of Customs he submitted his official reports, he also seems to have kept some sort of diary. Out of this and his official reports he wove his reminiscences, evoking a real feeling for the time and place better than any other writer represented. His writing has an enthusiasm that only spills over into blow when he assumes his role as a publicist for northern Australia. Above all, and unlike so many other comparable authors, he avoids the temptation to view European and official business as the only real part of the story.

The conditions of most people's life in the north, however, were hardly conducive to even European reminiscences or accounts of it as it was really lived. Perhaps we are lucky to have as much as we do. In particular, this is true of Daeng Sarro's account of the route of the Macassans. Though a rather generalized recital of information, it hints at the personal relationships and adventures that made up everyday life for these people. This sense of immediacy, which is lacking
The Earliest Europeans

If any Portuguese ship was ever driven on to the north-west coast of Australia, it is highly unlikely that any survivors returned to their countrymen to tell the tale. The earliest certain sighting of Australia by Europeans occurred in March 1606 when the Dutch crew of the Duyfken sailed for about 200 miles down the western side of Cape York Peninsula. There is no first-hand account of this voyage, though a small map survives showing how the entrance, and existence, of Torres Strait was obscured by islands. The Dutch were long ignorant of the voyage of Torres through the strait a few months later, and continued to suppose (though there were some doubts) that Cape York Peninsula was connected with New Guinea. They certainly applied the name ‘Nova Guinea’ to the peninsula, while ‘Nova Hollandia’ came to be used for the north and west coasts of the continent.

The voyage of the Duyfken is mentioned by a number of writers at the time or soon afterwards, and we know quite a lot about it. It was part of an attempt by the Dutch, who at the end of the sixteenth century had ousted the Portuguese from the control of the European trade in the archipelago, to explore their new field to its utmost limits. They were not alone, however, and it was an Englishman, John Saris, living at Bantam

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*The most useful map for this chapter is on p. 38.

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in Java, who recorded the departure of the Duyfken in November 1605.

The eighteenth,² heere departed a small Pinnasse of the Flemmings, for the discovery of the Iland called Nova ginnea, which, as it is said, affordeth great store of Gold.

At Banda the master, Willem Janz, collected a merchant, Jan Lodewycksz van Roosengin, to conduct the expected trade, but the high hopes were not fulfilled. The next year Saris recorded:

The fifteenth of June,³ heere arrived Nockhoda Tingall a Cling-Man from Banda, in a Java Juncke, laden with Mace and Nutmegs⁴ . . . he told me that the Flemmings Pinnasse which went upon discovery for Nova Ginny, was returned to Banda, having found the Iland: but in sending their men on shoare to intreate of Trade, there were nine of them killed by the Heathens, which are man-eaters; so they were constrained to returne, finding no good to be done there.

For details of what happened we have to consult the journal kept by the next captain to visit this part of the coast. In 1623 the Governor (appointed by the Dutch East India Company) of Ambona sent two ships, the Pera and the Arnhem, to conclude treaties of friendship with various people in the south-eastern islands of Indonesia, and then to proceed to ‘Nova Guinea’ and explore it further. These ships, too, failed to penetrate Torres Strait as they crossed over from the south coast of New Guinea to Cape York Peninsula. They soon passed the southward limit of the Duyfken’s exploration and on 25 April 1623 reached a point about 400 miles south of the tip of the peninsula. Two days later the Arnhem, which had had trouble keeping up, deserted and headed straight back to the Aru Islands, which resulted in the discovery of the north-east tip of Arnhem Land, named after the vessel. Jan Carstensz, the captain of the Pera, noted in his journal that the skipper and steersman of the Arnhem had little love of discovery and had clearly disobeyed

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² This is an Old Style date. It was in fact 28 November.

³ In fact, 25 June.

⁴ That is Tingall was a man from southern India and captain of a vessel from Java, which had been to Banda for a cargo of spices.
orders, and then continued to examine the coast as he sailed north along it. Early in May he had returned to the area visited by the Duyfken.

In the morning of the 11th, the wind being E.S.E. with good weather, we set sail again on a N.N.E. course along the land; in the afternoon we sailed past a large river (which the men of the Duyfken went up with a boat in 1606, and where one of them was killed by the arrows of the blacks); to this river, which is in 11° 48' Lat., we have given the name of the Carpentier River in the new chart.²

In the morning of the 12th the wind was E.S.E., with pleasant weather; I went ashore myself with the skipper, and found upwards of 200 savages standing on the beach, making a violent noise, threatening to throw their arrows at us, and evidently full of suspicion; for, though we threw out to them pieces of iron and other things, they refused to come to parley, and used every possible means to wound one of our men and get him into their power; we were accordingly compelled to frighten them by firing one or two shots at them, by which one of the blacks was hit in the breast and carried to the pinnace by our men, upon which all the others retired to the hills or dunes; in their wretched huts on the beach we found nothing but a square-cut assagay, two or three small pebbles, and some human bones, which they use in constructing their weapons, and scraping the same; we also found a quantity of black resin and a piece of metal, which the wounded man had in his net, and which he had most probably got from the men of the Duyfken; since there was nothing further to be done here, we rowed back to the yacht, the wounded man dying before we had reached her; at noon we set sail with a S.W. wind on a N.N.E. course along the land, and as it fell calm, came to anchor after having run on for 8 miles.

The Pera eventually reached Amboina safely on 8 June 1623 without rejoining the Arnhem, since she had arrived safely at Banda on 14 May.

² Now called the Batavia, or Wenlock, River.
The seventeenth century was the golden age of Dutch expansion in the east, and part of that expansion was the discovery and exploration of large parts of the Australian coast. Yet all the visitors, whether they came by choice or not, agreed that there was little real interest or profit in the country or its inhabitants.

By a strange chance, almost the last of these voyages returned to the area which had been first discovered. In 1756 the Governor-General and Council at Batavia (Djakarta) sent out two ships, the Rijder, under Lieutenant Jean Etienne Gonzal, and the Buis, under First Mate Laviene Lodewijk van Asschens, to explore the Gulf of Carpentaria and eastern Arnhem Land which had not been visited since Tasman’s second voyage in 1644. No journals or charts of the 1756 voyage remain, but soon after the ships’ return a rather critical report was compiled by the official in charge of putting together and publishing new discoveries. The care taken to sift the information of value from the accounts of the sailors is typical of the thoroughness with which the Dutch cartographers used to construct their remarkable maps of the Australian and other vaguely known coasts.

REPORT OF THE ‘MASTER CARTOGRAPHER’ AT BATAVIA,
GERRIT DE HAAN, TO THE GOVERNOR-GENERAL,
AND COUNCIL, 30 SEPTEMBER 1756

Pursuant to Your Honourable Worsips’ highly honoured orders, the undersigned has the honour to submit to Your Honourable Worsips a report concerning the voyage made by the small barks, the Rijder and the Buis to the South-land, so far as the same has been touched at by them . . .

On 8 February 1756 the two ships set sail together from this roadstead . . .

On 26 March they were overtaken by a violent storm off the Banda islands, so that they got separated, and the ship Buis, finding it impossible to stand out to sea, entered the port of Banda on 28 March; the ship Rijder held out with fore- and mizen-sails struck until the weather got better, and not knowing that the ship Buis had returned to port, continued her voyage. On 4 April those on board the ship Rijder sighted Cape False® in Lat. 7° 54′ S., in 5 and 4½ fathom; they then shaped their course to the S.E. and afterwards to the S.S.E., until on 10 April they saw the high land of Carpentaria, known by the name of High Island, near which they found an island not known to the chart, to which island they gave the name of Rijder’s Island. From High Island a reef runs out to sea a distance of nearly twelve miles coming close to Rijder’s Island . . . They then shaped their course along the land in order to get into the bay, in depths of 8, 7, 7½, 6½ fathom sandy bottom, at which last depth they came to anchor on 16 April, where they estimated themselves to be about eight miles off shore. On 17 April they went ashore with the boat for the first time in order to ascertain the nature of the coast. On landing they found a number of cabins constructed of the bark of trees; they also saw a man who fled into the wood at their approach, and a small prau or species of vessel also made of bark, together with some fishing-tackle and a kind of assagays made of branches of trees, from 4 to 9 feet long, tipped at one end with a small piece of bone ground to a sharp point. The fishing-lines seemed to be twisted of fibrous bark, and, instead of hooks, had pointed claws of beasts fastened to them. The land was overgrown with tall grass, and they saw a number of fine dells or valleys, through which flowed various small rills of fresh water; the trees were very tall and straight, of regular growth and of different kinds, some of which would, as they presumed, furnish excellent timber for ships’ masts, yards, etc. The soil was very rich, and on the whole the country looked very promising. They remained there, making various landings, and taking in firewood and water, till 26 April, when they put to sea again . . . shaping their course E.N.E. close to the wind in depths of 5, 6 or 7 fathom, following the trend of the coast till they had got into 10° 30′ S. Lat., where they cast anchor on 28 April, in order to explore the land also in this latitude. They found nothing worth mentioning, however, except a few more cabins.

6 Cape Valsch in West Irian.
7 The identification of the places mentioned in this account is difficult. These islands are probably near Thursday Island. Where specific distances are mentioned, I have converted each Dutch mile of the original into four normal English miles, though this ratio creates some improbabilities in respect of relatively short distances.
or huts of the kind before described, the inmates of which took to the wood as soon as our men appeared. They dragged the boat on the beach here, and repaired the same, remaining there till 13 May, waiting for the ship the Buis. On that day they resolved to continue their voyage, shaping their course along the land as high as they could in order to keep the same alongside; but they lost sight of the land all the same, and became aware that the said land lay at least one degree more to southward than the chart had led them to believe. On 24 May they again sighted the land in 12° 18' S. Lat.; it showed as a very low-lying coast, whose trend they followed close inshore. In Lat. 12° 26' South they cast anchor in 10 fathom good anchoring-ground. As they were lying at anchor at about five miles' distance from the shore, they saw two of the praus above described paddle up to the ship, each of them containing two men, who, when they had got near the ship, by signs and cries began to signify to our men that they wished them to come ashore. The following day, being 26 May, our men went ashore at daybreak, and on landing found several persons there, who, however, all took to flight directly. They also saw two dogs, not unlike so-called Bengal jackals. The persons who had fled, shortly after returned to them, when they found them armed with the assagays above described. They were accompanied by a number of females who had their privities covered with a kind of small mats. The natives then all of them sat down on the beach near our men, who made signs to them that they were seeking fresh water: upon which the natives got up and signified to our men their willingness to show them the places where water was obtainable. Nor were our men deceived, for after walking on along the beach for some time, they were conducted to a pleasant valley with fine trees such as those above described. This seemed to be the dwelling-place of the natives, for our men saw here more women and children and also a number of primitive dwellings, merely consisting of sheltered places under the trees partly covered in with bark. The water which they found here, welled up out of the earth in pits dug by human hands. After having inspected the whole place, they went back to the beach, where they found the two praus in which the natives had previously approached the ship. As our men were seated on the beach, nineteen natives came up to them, all of them with bodies daubed over with red; when the said natives were by our men treated to some arrack with sugar, they began to make merry and even struck up a kind of chant, at the conclusion of which they retired to the wood again.

In the morning of 27 May our men went ashore again for the purpose of attempting to get hold of one or two natives, but did not succeed in doing so that day, because they landed too late to lure the natives to the beach. Early in the morning of 28 May they again landed in order to execute their plan; on their arrival the natives came up to them dancing and singing, sat down close to them, laid aside their so-called assagays or weapons, and again enjoyed the liquor with which our men plied them. While they were thus making merry, our men seized hold of two of them, upon which the others jumped to their feet, snatched up their assagays and began to throw them at our people without, however, wounding any one; except that the ship's clerk, who in flying tried to seize one of the natives round the body, was in the scuffle slightly wounded in the hand; upon this, our men fired a volley, wounding one of the natives, who thereupon all of them fled into the bush. Our people then tried to drag to the boat the two men they had got hold of, but as they were tying their arms and legs together, one of them by frantic baring and tearing contrived to get loose and effect his escape. Shortly after upwards of fifty natives again made their appearance, throwing assagays, but they also took to their heels, when our people let off another volley of musketry, after which our men succeeded in carrying off their one prisoner to the boat.  

On 29 May, the wind being S.E. and S.E. by E. with a topgallant gale, they put to sea again, running S.S.W. close by the wind in from 10 to 17 fathom good anchoring-ground. At noon they found their latitude to be 12° 31' South, and dropped anchor in 10 fathom good anchoring-ground, at about five

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8 If the latitudes are correct, this land is about 150 miles down the western coast of Cape York Peninsula, near the town of Weipa.
miles’ distance from the land, their compasses showing 3° 49’ north-easterly variation.

On 30 May, as they were lying at anchor, two small praus came to within two miles of the ship and then paddled back to shore.

On 31 May, the wind being East and E.S.E., with a top-gallant gale, they set sail close to the wind on a southerly course. At noon they took the latitude of 12° 44’ South, having passed depths of 10 and 10½ fathom. At sunset the counter-current forced them to drop anchor before Mussel Bay.

On 1 June, the wind being E.S.E. and S.E. by E. with a weak top-gallant gale, they set sail over depths of 10½, 11, 12 and latterly 10½ fathom again, good anchoring-ground, upon which they dropped anchor in the forenoon. At noon it fell a calm, and they took the latitude of 12° 51’ South, the compasses showing 3° 3’ north-easterly variation.

In the morning of 2 June the wind varied between East, E.S.E., S.E., and then went round to S.W. by S.; they sent the boat ashore in search of fresh water, since in the latitude they had now reached the chart showed a fresh-water river. When the boat returned alongside, they were informed that there was an excellent watering-place close by, where the water came rushing down the rocks, and also a fine inland lake, near which the men had seen a great number of birds of various kinds, together with certain foot-prints of large animals. In the drawing or chart this spot has been named the *Rijder’s Watering Place* situated in 12° 57’ S. Lat.

On 3 June, the wind blowing from the East to E.S.E. with a fresh breeze, they set sail for the watering-place aforesaid in 11, 10, 11½, 9½, 9 and 8 fathom, good anchoring-ground and muddy sand, in which they dropped anchor at two glasses in the afternoon.

From 4 to 12 June they overhauled the ship, took in water and firewood, and repaired the boat. During this time no natives were seen by them.

On 13 June, the wind being E.S.E. and S.E. by E. with a weak top-gallant gale, they put to sea again, following the trend of the coast on a course between W.S.W. and S. by E. . . . over depths of 8, 8½, 9 and 10 fathom, good anchoring-ground with pebbles and small shells. At noon they took the latitude of 12° 2’ South, and in the afternoon the head-current forced them to come to anchor.

On 14 June, the wind varying between S.E. by E. and South, they set sail running close by the wind on a southerly and S. by E. course in 9, 9½, 10 and 11 fathom sandy bottom. At noon their estimated course and distance performed since sunrise were S.S.W. half a point westerly, and ten miles, the latitude taken being 13° 8’ South. In the afternoon the wind was S.S.W. by W. with a weak breeze and occasional calms; they sounded from 11 to 8 fathom sandy bottom with black spots and pebbles; at the depth last mentioned they came to anchor at the first glass of the dog-watch, slightly to southward of Rijder’s Point, about five miles off shore, the compasses showing 3° 45’ north-easterly variation.

On 15 June the wind blew from the S.E. to the E.S.E. in the morning and during the day, with a moderate and fresh breeze. At sunrise they went ashore with the boat in search of whatever might be worth noting. At noon they took the latitude of 13° South. Towards sunset the boat returned alongside, reporting that, as they were pulling ashore, and were at approximately one mile’s distance from the land, a canoe in shape like those before described came paddling up to them, containing two men who made signs for them to come ashore; and when with great difficulty they had got ashore through the surf, the two natives of the canoe had already fled into the bush; shortly after, however, eleven men and five females again came running up to them, armed with the assagays hereinbefore described, who directly tried to take our men’s hats off their heads, and on being prevented from doing so, forthwith prepared to throw their weapons; but when our men fired a shot, they all fled except a youth, whom our people carried on board along with the canoe aforesaid, this man being the younger of the two natives brought hither. Our men had also come upon a large pond containing fresh water, which, however, was difficult to get to the ship. On the whole the country looked promising enough, and when cultivated would probably prove very fertile.
The natives mainly subsist on the roots of trees and wild fruits such as yams or tubers, together with small quantities of fish which they catch in their canoes. They also seemed to have some knowledge of gold, when lumps of the same were shown them. Round by the south the natives are somewhat more tractable than those farther to northward. Between the 11th and 12th degrees the trend of the coast is S.W. by S. and N.E. by N., next S.S.W. and N.N.E. down to the 13th degree; then running on due south as far as the eye reaches. The coast is mainly level without any reefs, and may be approached sounding.

On 16 June . . . they resolved to depart from there, since the season was passing, and they could only with great difficulty make any headway or run higher, while, besides, they had only two anchors and cables left. They then shaped their course to westward for Arnhem Land. At noon they took the latitude of 13° 3' South; course held as before.

On 17 June in the forenoon the wind was E. by S. and E.S.E. with a moderate and fresh top-gallant gale, stiffening to a reefed topsail gale. At noon their estimated course and distance performed in the last 24 hours were W. by N. 102 miles; estimated Latitude 12° 44' South; Latitude taken 12° 36' South; course held as before; no land in sight.

From 18 to 23 June their course was mainly westerly, with variable winds and good weather.

On 24 June the wind was S.E. by S., E.S.E. and S.E. by E. in the morning and forenoon, with a stiff reefed topsail gale. Shortly after noon they sighted the mainland of Nova Hollandia, S.S.W. of them, showing as a very low-lying coast; they passed over depths of 15, 14, 13, 12, 11, 10, 9 and 8$\frac{1}{2}$ fathom, good anchoring-ground and muddy sand, keeping a N.W. by W. course, since the shallows prevented them from running nearer to the land than where they could just sight it from the ship's deck; they next got into 9, 10 and 11 fathom again as before, and dropped anchor at sunset.

On 25 June the wind was S.S.E. to S.E. in the morning and forenoon with a moderate top-gallant gale, a brightening sky and good weather. At daybreak, as they were weighing anchor, the cable snapped off, and the buoy having disappeared, they thus lost their third anchor, so that they had only one left. They therefore resolved to call at the island of Timor, and shaped their course to N.W. by W. over depths of 11, 10, 10$\frac{1}{2}$ and 8 fathom; they next steered higher in order to get into deeper water, and thus passed over 12, 7, 8, 15, 9, 10, 12, 14, 13, 7, 5, 3$\frac{1}{2}$, 4, 5, 6, afterwards running up to 20 fathom, muddy bottom. At noon their estimated course and distance performed were N.W. by W. slightly Northerly, 22 miles; their estimated latitude 11° 30' South; Latitude taken 11° 37' South; estimated distance from the land 36 or 38 miles.

They next shaped their course to north-west in these known waters, and on 3 July following sighted the island of Roti to westward of them . . .

The Buis, which also continued its voyage, was even less successful and managed to lose a boat and eight men. The author of the report is very scathing.

This is one of the few mildly favourable reports the Dutch authorities ever received about Australia, but at that stage there was no desire, and little power, to expand into new areas. Fourteen years later Cook sailed through Torres Strait, the first of a line of British sailors who were to complete the exploration of the Australian coast, with little assistance from other nations.

Further Reading. The basic collection of documents on the subject of this chapter is J. E. Heeres, The Part Borne by the Dutch in the Discovery of Australia 1606–1765 (London and Leiden, 1899, in Dutch and English), from where the translations of the Dutch passages quoted have been taken with a few minor alterations. Much of this material is also to be found in A. Sharp, The Discovery of Australia (Oxford, 1963). The quotations from Saris come from 'Observations of the said Captaine John Saris . . . during his abode at Bantam, from October 1605 till Octob. 1609', Samuel Purchas, Hakluytus Posthumus; or, Purchas His Pilgrimes, Fourth Booke, ch. 2 (Glasgow, 1903–7 edition, vol. 3, pp. 491–2).
The Voyage of H.M.S. Investigator

Of all the figures in Australian coastal exploration none, except perhaps Cook, is held in such honour as Matthew Flinders. Not only did he first popularize the name 'Australia' and produce charts which have only recently been superseded, but he displayed such leadership, fortitude and scientific enthusiasm that we admire him as much as a man as an explorer.

Flinders was born in 1774 in Lincolnshire, the son of a surgeon. When only fifteen he joined the navy as a lieutenant's servant, and even then was interested in the technical business of navigation and hydrography. His main practical training in such matters came when he served as midshipman on Bligh's second voyage to the Pacific in 1791–3. There he was introduced to the great tradition of British sea exploration that began with Cook, and to which he came to belong.

He first came to Australia with Governor Hunter in 1795 and soon distinguished himself, along with George Bass, in various exploring voyages up and down the coast from Sydney and Bass Strait. In 1797 he was made lieutenant, and in 1800 returned to England to get support for further exploration. His Observations on the Coasts of Van Diemen's Land . . . published in the following year showed the excellence of his work and in the same year he took charge, as Commander, of an old 334-ton sloop, which was aptly renamed the Investigator. In this vessel he proposed to survey the coasts of Australia so well 'that no future voyage to this country should be necessary'.

Flinders's reputation rests chiefly on the results of this one voyage. He arrived off Cape Leeuwin on 6 December 1801 and sailed carefully round the coast from there to Wilson's Promontory, being the first European to visit most of the coast of South Australia, and everywhere preparing charts of greater accuracy than any of his predecessors and contemporaries. In Encounter Bay he met the French explorer Captain Baudin coming from the east, and a comparison of the work of the two expeditions, exactly contemporaneous, clearly showed the superiority of Flinders's hydrographic work.

He arrived in Sydney on 9 May 1802 and after making a few alterations to the ship and taking on some more men, sailed north on 22 July. Early in March 1803 he was compelled to leave the coast of Arnhem Land and return to Sydney, first going to Timor for water and fresh food and then undertaking the long haul right around Western Australia. Thus Flinders became the first navigator to sail right around the continent.

The rest is tragedy.

Since it was quite impossible to continue in the Investigator, which was now in very bad repair indeed, the best course of action seemed to be to return to England, lay before the Admiralty the charts of what had already been surveyed, and try to obtain another ship in which to continue the survey. Eight days out from Sydney on the return voyage the Porpoise (in which Flinders was a passenger) and the accompanying Cato foundered on Wreck Reef, east of Rockhampton. Flinders commanded a small boat which sailed back to Sydney for help, and after picking up some survivors, continued to England in the tiny Cumberland. With disastrous ill fortune, he was forced to put in at the French colony of Mauritius, not knowing that war with France had broken out again. The governor, perhaps not unreasonably but in fact quite erroneously, arrested him.

1 The most useful maps for this chapter are on pp. 10–11, p. 172 and on the endpapers.
as a suspected spy. Proceedings for his release dragged on and he did not reach England until 1810, more than seven years after leaving Sydney.

The years of activity in Australia and frustration in Mauritius had taken their toll, and Flinders was now so aged and ill that there could be no thought of completing the survey. He was promoted to Post Captain, and set about writing his narrative of the voyage. He may just have seen the published work a few days before he died on 19 July 1814, aged forty.

The following extracts are taken from these volumes, *A Voyage to Terra Australis; Undertaken for the Purpose of Completing the Discovery of that Vast Country...* (London, 1814).

Flinders's work in northern Australia was the last active exploration he managed to perform and in some ways it is the greatest part of his achievement. It was certainly the most enduring. Until as recently as 1965 the Admiralty chart of the area was still based on his survey, and some of his comments are still quoted in the relevant sections of the *Australia* Pilot. To appreciate what was done, it is worth thinking of the situation on board the Investigator as she sailed into the Gulf of Carpentaria at the beginning of November 1802. Most of the officers and crew had been together for nearly sixteen months. Just over three months earlier they had left Sydney and worked slowly north. Over the next few months they were to show increasing signs of exhaustion and debilitation in the tropical humidity of the wet season. But they knew the ship, the routine and each other, and they knew that in their young captain with his open face and small, active body, they had a dependable and efficient leader, if a demanding one. It is worth remembering that he was only twenty-eight.

The survey of the east coast and Torres Strait had been largely a matter of following the general outline given by Cook and only slightly amplified by those who since then had attempted the difficult, but strategically important route around the north of Australia. Flinders made several important corrections to previous data and added much more detail, though there was important work to be done there for many years to come. In the Gulf of Carpentaria the situation was completely different. Almost 200 years before, the Dutch had discovered the Gulf and Flinders had a rough map of what they had found. Although he was to be surprised by the accuracy of that map, it was no more than a sketch compared with his careful chart. Two other things marked off the survey of the Gulf from that of the east coast. The first was the generally flatter, duller and straighter line of the coast. On the east side of the Gulf particularly, there was little of interest and much of the coast could be passed along fairly quickly. Though the Wellesley and Pellew groups of islands, which had been shown as large and rather amorphous peninsulas on the Dutch chart, were interesting discoveries, it is only on the western side that the country becomes more varied. Secondly, Flinders was pleased to get into the Gulf before the north-west monsoon set in, but much of the voyage around the Gulf was into this monsoon. Sailing conditions therefore were extremely difficult.

On 15 November 1802 the Investigator reached the base of Cape York Peninsula after only a fortnight spent coming down the eastern side of the Gulf.

The coast to which we approached nearest this evening, was sandy and very barren; but there were some natives collected upon the hillocks, to look at the ship; so that even here, and at the end of the dry season, fresh water may be had. These people were black and naked, and made many wild gestures. Between this part and the land set at S. by W. ½ W. at noon, there was a bight falling back as far as the latitude 17° 42', or perhaps further, which appeared to be the southern extremity of the Gulph of Carpentaria; for the coast from thence took a direction to the northward of west. Shoals extended a great way out from the bight; and were almost dry to a considerable distance.

In the morning our route was pursued along the shore, at the distance of six to nine or ten miles; the course being N. W., close to a N.N.E. wind, and the soundings remarkably regular, between 3 and 3½ fathoms. Two leagues from the place where the natives had been seen, was a projecting part where the
country again became woody; but the coast there, and onward, was as low as before. At noon, the observed latitude was 17° 21' 15", and the longitude by time keeper 139° 54' east; the furthest continuation of the land seen from the mast head, bore W. ½ S., but there was a small lump bearing N. 35° W., towards which we kept up as much as possible. At two o'clock the wind headed, and on coming into 2½ fathoms, we tacked; being then five miles from the low southern land, and three or four leagues from the northern hill, which bore N. 18° W. Not much was gained in working to windward from that time till dusk; and the anchor was then dropped in 4½ fathoms, blue mud, no other land than the small hill being in sight.

There being no island marked in the Dutch chart so near to the head of the Gulph as this hill, made me conclude that it was upon the main land; and to hope that the space of four leagues, between it and the southern coast, was an opening of some importance. In the morning, a fresh land wind at south-east Favoured our course, the water deepened to 10 fathoms, and at eight o'clock to no ground with 13, near the south end of a reef extending out from the hill. On coming to 5 fathoms behind the reef, the anchor was dropped on a muddy bottom, with the hill bearing N. 15° E., one mile and a quarter, and the dry extremity of the reef S.E. ½ E. The coast to the southward was scarcely visible from the mast head, but land was seen to extend westward from the hill, as far as nine or ten miles; and in order to gain a better knowledge of what this land might be, I went on shore, taking instruments with me to observe for the rates of the time keepers.

The hill proved to be a mass of calcareous rock, whose surface was cut and honey-combed as if it had been exposed to the washing of a surf. It was the highest land we had seen in Carpentaria, after having followed one hundred and seventy-five leagues of coast; nor was any land to be distinguished from the top of the hill which had an equal degree of elevation; yet it did not much exceed the height of the ship's mast head! The land round it proved to be an island of five miles long; separated from other land to the west by a channel of nearly two miles in width. The wide opening between this land and the low coast to the southward, I take to have been what is called Maatsuyker's River in the old chart; and that the island, which Tasman, or whoever made the examination, did not distinguish well from being too far off, is the projecting point marked on the west side of that river. Maatsuyker was one of the counsellors at Batavia, who signed Tasman's instructions in 1644; but as there is no river here, his name, as it stands applied in the old chart, cannot remain. I would have followed in the intention of doing him honour, by transferring his name to the island, but Maatsuyker's Isles already exist on the south coast of Van Diemen's Land; I therefore adopt the name of Sweers, another member of the same Batavia council; and call the island at the entrance of the supposed river, Sweers' Island. The hill obtained the name of Inspection Hill; and after taking bearings from it, I rowed into the channel which separates Sweers' Island from the western land; and finding the shelter to be good, the bottom soft, and soundings regular between 3 and 6 fathoms, the shores on each side were searched for fresh water, with a view to filling up the holds there and caulking the ship, before proceeding further in the examination of the Gulph: the search, however, was unsuccessful.

In Torres' Strait, when running with a fresh side wind, the ship had leaked to the amount of ten inches of water per hour, and in some hours the carpenters had reported as much as fourteen; but no anchorage, adapted to the purpose of caulking the bends, had presented itself until our arrival here. Before going on shore, I had left orders for the ship to be put on a carven, and the carpenters began upon the larboard side. In the course of their work two planks were found to be rotten, and the timber underneath was in no better state; it was therefore desirable to find a place where the holds could be completed with water, and the botanists and myself find useful employment for a few days, whilst the deficiencies were repairing. Such a place, it was reasonable to expect, the opening to the westward would afford; and the carpenters having patched up the bad part by the evening of the 18th, and another set of observations for the time keepers being obtained, we were then ready to proceed in the examination.
[However, no reasonable place was found.] I therefore judged it most advisable to return, and place the ship between Bentinck’s and Sweers’ Islands, until the necessary caulking was finished. Natives had been seen on both those islands; and this gave a hope that water might still be found to complete the holds previously to encountering the bad weather of the north-west monsoon, which I had been expecting to set in every day.

At daylight next morning the anchor was weighed; and having to work against foul winds, the breadth of the ship passage between Bentinck’s Island and the southern main, was ascertained and sounded; and at dusk in the evening we anchored half a mile from the west sandy point of Sweers’ Island, in 5 fathoms, small stones and shells. This anchorage between the two islands, though it may not be called a port, is yet almost equally well sheltered, and I named it Investigator’s Road; it has the appearance of being exposed between N.N.W. and N.E. 3/4 N.; but the rocks from each shore occupy nearly one half of the space, and the water is too shallow in the remaining part to admit any surge to endanger a ship.

Next day, a boat was sent to fish with the seine upon Sweers’ Island, and an officer went to the opposite shore to dig for water; the botanists divided themselves into two parties, to visit both islands, and the carpenters began caulking the starboard side of the ship. I repeated the observations under Inspection Hill, for the rates of the time keepers; and being informed on my return, that the midshipman of the seining boat had discovered a small hole containing a little muddy water, with a shell lying near it. I had the place dug out, through the sand and a stratum of whitish clay, to the depth of ten or eleven feet. Under the clay we found a bottom of stone and gravel, and the water then flowed in clear, and tolerably fast. This was a great acquisition; more especially as the spring was not far from the beach at the west point of Sweers’ Island, where the casks could be conveniently landed, and where we had had great success in fishing.

The gentlemen who visited Bentinck’s Island, found a small lake of fresh water at no great distance from the sea side; and it appeared that the interior part of Sweers’ Island, towards the northern end, was occupied by swamps. This comparative abund-

ance of water upon such low islands, and at the end of the dry season, seemed very remarkable; it may perhaps be attributed to the clayey consistence of the stratum immediately under the sand, and to the gravelly rock upon which that stratum rests; the one preventing the evaporation of the rains, and the other obstructing their further infiltration.

Early next morning the ship was removed to within two cables length of the west point, nearer to the spring; and lieutenant Fowler was established on shore with a party of seamen and marines, taking tents, a scine, and other necessaries for watering the ship and supplying us with fish. The carpenters proceeded in their work of caulking; but as they advanced, report after report was brought to me of rotten places found in different parts of the ship,—in the planks, bends, timbers, treenails, &c., until it became quite alarming. I therefore directed the master and carpenter to make a regular examination into all such essential parts, as could be done without delaying the service; and to give me an official report thereon, with answers to certain queries put to them. After two days examination, their report was made in the following terms.

SIR,

In obedience to your directions we have taken with us the oldest carpenter’s mate of the Investigator, and made as thorough an examination into the state of the ship as circumstances will permit, and which we find to be as under:

Out of ten top timbers on the larboard side, near the fore channel, four are sound, one partly rotten, and five entirely rotten.

We have seen but one timber on the larboard quarter which is entirely rotten.

On the starboard bow, close to the stem, we have seen three timbers which are all rotten. Under the starboard fore chains we find one of the chain-plate bolts started, in consequence of the timber and inside plank being rotten; and also a preventer eye-bolt, from the same cause.

On boring into the second futtock timbers from the main hold, close under the beams of the lower deck on the larboard side, we find one sound and two rotten; and on the other side, one sound and one rotten.

On boring into one of the second futtock timbers in the cockpit, on each side, we find it to be sound on the starboard, but on the other side rotten: the inside plank on both sides is rotten. On bor-
ing into one timber of a side in the after hold, we find them to be sound. On boring into one timber of a side from the bread room, one is sound; but on the larboard side it is rotten.

The stem appears to be good; but the stemson is mostly decayed.
The lower breast hook is decayed within side.
The transoms, sleepers, stern post, and postson are all sound.
The ends of the beams we find to be universally in a decaying state.
The tree-nails are in general rotten.

From the specimens we have seen of the top-sides and bends, we expect that the insides of them are rotten, fore and aft; but that about one inch of the outside of the greater part is yet quite sound.

After the above report, and upon due consideration, we give the following answers to the four questions put to us.

1st. The ship having before made ten inches of water an hour, in a common fresh breeze, we judge from that, and what we have now seen, that a little labouring would employ two pumps; and that in a strong gale, with much sea running, the ship would hardly escape foundering; so that we think she is totally unfit to encounter much bad weather.

2nd. We have no doubt but that, if the ship should get on shore under any unfavourable circumstances, she would immediately go to pieces; but with a soft bottom and smooth water, she might touch for a short time without any worse consequences than to another ship, if she did not heel much; but altogether, we judge it to be much more dangerous for her to get aground in her present state, than if she were sound.

3rd. It is our opinion that the ship could not bear heaving down on any account; and that laying her on shore might so far strain her as to start the copper and butt ends, which would make her unable to swim without vast repair.

4th. Mr. Aken has known several ships of the same kind, and built at the same place as the Investigator; and has always found that when they began to rot they went on very fast. From the state to which the ship seems now to be advanced, it is our joint opinion, that in twelve months there will scarcely be a sound timber in her; but that if she remain in fine weather and happen no accident, she may run six months longer without much risk.

We are, Sir,
your obedient servants,
John Aken, master,
Russel Mart, carpenter.

To Matthew Flinders, Esq.,
Commander of His Majesty’s sloop the Investigator.

I cannot express the surprise and sorrow which this statement gave me. According to it, a return to Port Jackson was almost immediately necessary; as well to secure the journals and charts of the examinations already made, as to preserve the lives of the ship’s company; and my hopes of ascertaining completely the exterior form of this immense, and in many points interesting country, if not destroyed, would at least be deferred to an uncertain period. My leading object had hitherto been, to make so accurate an investigation of the shores of Terra Australis that no future voyage to this country should be necessary; and with this always in view, I had ever endeavoured to follow the land so closely, that the washing of the surf upon it should be visible, and no opening, nor any thing of interest escape notice. Such a degree of proximity is what navigators have usually thought neither necessary nor safe to pursue, nor was it always persevered in by us; sometimes because the direction of the wind or shallowness of the water made it impracticable, and at other times because the loss of the ship would have been the probable consequence of approaching so near to a lee shore. But when circumstances were favourable, such was the plan I pursued; and with the blessing of God, nothing of importance should have been left for future discoverers, upon any part of these extensive coasts; but with a ship incapable of encountering bad weather,—which could not be repaired if sustaining injury from any of the numerous shoals or rocks upon the coast,—which, if constant fine weather could be ensured and all accidents avoided, could not run more than six months;—with such a ship, I knew not how to accomplish the task.

A passage to Port Jackson at this time, presented no common difficulties. In proceeding by the west, the unfavourable monsoon was likely to prove an obstacle not be surmounted; and in returning by the east, stormy weather was to be expected in Torres’ Strait, a place where the multiplied dangers caused such an addition to be peculiarly dreaded. These considerations, with a strong desire to finish, if possible, the examination of the Gulph of Carpentaria, fixed my resolution to proceed as before in the survey, during the continuance of the north-west monsoon; and when the fair wind should come, to proceed by the west to Port Jackson, if the ship should prove capable of a winter’s passage along the South Coast, and if not, to make for the nearest port in the East Indies.

By the 28th, the watering and wooding of the ship were com-
pleted, the gunner had dried all his powder in the sun, and
the tents and people were brought on board. All that the
carpenters could do at the ship was to secure the hooping
ends to the stem,—shift some of the worst parts in the rotten
planking,—and caulk all the bends; and this they had finished. The
wind being south-east on the morning of the 29th, I attempted
to quit the Investigator’s Road by steering out to the north-
ward; but this being found impracticable, from the shallow-
ness of the water, we were obliged to beat out to the south;
and so contrary did the wind remain, that not being able to
weather the reef at the south-east end of Sweers’ Island, we
anchored within it on the evening of the 30th.

By 13 December, they had arrived in the Pellew’s where a
fortnight was spent, largely in short boat expeditions. Flinders’s
summary of what was found displays his ability to observe and
describe clearly and accurately.

Very little has been said upon the islands or their productions,
or upon the various traces of native inhabitants and of former
visitors . . . the observations on these heads being intended for
the general and conclusive remarks upon this group. These are
now to be given; for the wooding and watering were com-
pleted . . . and the ship . . . ready to proceed in the examination
of the Gulph.

In the old Dutch chart, Cape Vanderlin is represented to be
a great projection from the main land, and the outer ends of
North and West Islands to be smaller points of it. There are
two indent or bights marked between the points, which may
correspond to the openings between the islands; but I find diffi-
culty in pointing out which are the four small isles laid down
to the west of Cape Vanderlin; neither does the line of the coast,
which is nearly W.S.W. in the old chart, correspond with that
of the outer ends of the islands, and yet there is enough of
similitude in the whole to show the identity. Whether any
change have taken place in these shores, and made islands of
what were parts of the main land a century and a half before,—
or whether the Dutch discoverer made a distant and cursory
examination, and brought conjecture to aid him in the con-
struction of a chart, as was too much the practice of that time,—
it is perhaps not now possible to ascertain; but I conceive that
the great alteration produced in the geography of these parts
by our survey, gives authority to apply a name which, without
prejudice to the original one, should mark the nation by which
the survey was made; and in compliment to a distinguished
officer of the British navy, whose earnest endeavours to relieve
me from oppression in a subsequent part of the voyage demand
my gratitude, I have called this cluster of islands Sir Edward
Pellew’s Group.

The space occupied by these islands is thirty-four miles east
and west, by twenty-two miles of latitude; and the five principal
islands are from seven to seventeen miles in length. The stone
which seems to form the basis of the group is a hard, close-
grained sand stone, with a small admixture of quartz, and in
one or two instances it was slightly impregnated with iron;
calcareous, or coral rock was sometimes found at the upper parts,
but the hard sand stone was more common. Where the surface
is not bare rock, it consists of sand, with a greater or less pro-
portion of vegetable soil, but in no case did I see any near
approach to fertility; yet all the larger islands, and more
especially the western side of Vanderlin’s, are tolerably well
covered with trees and bushes, and in some low places there is
glass.

As in most other parts of Terra Australis, the common trees
here are various species of the eucalyptus, mostly different from,
and smaller than those of the East and South Coasts. The cab-
bage palm, a new genus named by Mr. Brown Livistona inermis,
is abundant; but the cabbage is too small to be an interesting
article of food to a ship’s company; of the young leaves, drawn
into slips and dried, the seamen made handsome light hats, ex-
cellent for warm weather. The nutmeg was found principally
on Vanderlin’s Island, growing upon a large spreading bush;
but the fruit being unripe, no accurate judgment could be
formed of its quality. Amongst the variety of other plants dis-
covered by the naturalist, were two shrubs belonging to the
genus Santalum, of which the sandal wood, used as a perfume
in the East, is also one; but this affinity to so valuable a tree
being not known at the time, from the description of the genus being imperfect, no examination was made of it with that object in view.

All the larger islands seem to possess the kangaroo; for though none were seen, their foot marks were perceptible in most of the sandy places where I landed: the species seemed to be small. In the woods were hawks, pigeons of two kinds, and some bustards; and on the shore were seen a pretty kind of duck and the usual sea fowl. Turtle tracks were observed on most of the beaches, but more especially on the smaller islands, where remains of turtle feasts were generally found.

There were traces of Indians on all the islands, both large and small, but the latter are visited only at times; these people seemed to be equally desirous of avoiding communication with strangers, as those of Wellesley’s Islands, for we saw them only once at a distance, from the ship. Two canoes found on the shore of North Island were formed of slips of bark, like planks, sewed together, the edge of one slip overlaying another, as in our clincher-built boats; their breadth was about two feet, but they were too much broken for the length to be known. I cannot be certain that these canoes were the fabrication of the natives, for there were some things near them which appertained, without doubt, to another people, and their construction was much superior to that on any part of Terra Australis hitherto discovered; but their substance of bark spoke in the affirmative. The same degree of doubt was attached to a small monument found on the same island. Under a shed of bark were set up two cylindrical pieces of stone, about eighteen inches long; which seemed to have been taken from the shore, where they had been made smooth from rolling in the surf, and formed into a shape something like a nine pin. Round each of them were drawn two black circles, one towards each end; and between them were four oval black patches, at equal distances round the stone, made apparently with charcoal. The spaces between the oval marks were covered with white down and feathers, stuck on with the yolk of a turtle’s egg, as I judged by the gluten and by the shell lying near the place. Of the intention in setting up these stones under a shed, no person could form a reasonable conjecture; the first idea was, that it had some relation to the dead, and we dug underneath to satisfy our curiosity; but nothing was found . . .

Indications of some foreign people having visited this group were almost as numerous, and as widely extended as those left by the natives. Besides pieces of earthen jars and trees cut with axes, we found remnants of bamboo lattice work, palm leaves sewed with cotton thread into the form of such hats as are worn by the Chinese, and the remains of blue cotton trousers, of the fashion called moormans. A wooden anchor of one fluke, and three boats rudders of violet wood were also found; but what puzzled me most was a collection of stones piled together in a line, resembling a low wall, with short lines running perpendicularly at the back, dividing the space behind into compartments. In each of these were the remains of a charcoal fire, and all the wood near at hand, had been cut down. Mr. Brown saw on another island a similar construction, with not less than thirty-six partitions, over which was laid a rude piece of frame work; and the neighbouring mangroves, to the extent of an acre and a half, had been cut down. It was evident that these people were Asiatics, but of what particular nation, or what their business here, could not be ascertained; I suspected them, however, to be Chinese, and that the nutmegs might possibly be their object. From the traces amongst Wellesley’s Islands, they had been conjectured to be shipwrecked people; but that opinion did not now appear to be correct.2

The barometer stood here from 29,96 to 29,62 inches, being highest with the winds at north-east, and lowest with those from the southward; in the heavy squalls of wind, rain, thunder, and lightning from the north-west, the mercury stood at a medium elevation. On board the ship, the average standard of the thermometer was nearly 85°. On shore it was hotter, yet the musketoes were not very troublesome; but the common black flies, from their extraordinary numbers and their impudence,

2 In fact these people were the Macassan trepang fishers who came down to Australia every year from the Celebes. Flinders met part of the fleet six weeks later in Malay Road (see below). The stone fireplaces were used to support cauldrons in which the trepang, or sea-slug, was boiled before being dried. Archaeological work has located several such sites in the Pellew’s, and many more around the coast of Arnhem Land.
were scarcely less annoying than musketoes; they get into the mouth and nose, and settle upon the face or any other part of the body, with as much unconcern as they would alight on a gum tree; nor are they driven away easily. This was the case on shore, and on board the ship whilst lying at anchor, and for a day or two afterwards; but the society of man wrought a change in the manners even of these little animals. They soon became more cautious, went off when a hand was lifted up, and in three or four days after quitting the land, behaved themselves orderly, like other flies; and though still numerous on board, they gave little molestation. Dampier found these insects equally troublesome on the North-west Coast; for he says (Vol. I. p. 464), speaking of the natives, Their eye-lids are always half closed, to keep the flies out of their eyes; they being so troublesome here, that no fanning will keep them from coming to one's face; and without the assistance of both hands to keep them off, they will creep into one's nostrils, and mouth too, if the lips are not shut very close.'

Sir Edward Pellew's Group, as will be seen by a reference to the plan, affords numerous anchorages against both the south-east and north-west monsoon; but unless it should be within the two small isles near the south-west side of Vanderlin's Island, where the depth was not well ascertained, there is not a single harbour, the different bays and coves being too shallow to admit a ship. Wood for fuel is easy to be procured; and water may be had in December, and probably as late as April or May, but I think not afterwards. The most accessible watering place we could find, was at the back of the mangroves near our principal anchorage, within the east point of North Island, where, with some trouble, our casks were filled; and at a beach there, left dry at low water, the seine was hauled with some success. At Vanderlin's Island there are many beaches fit for the seine; and indeed it seemed superior to the other islands as well for this, as for every other purpose, when a ship can lie there; it is also the most frequented by the Indians, and may probably have fixed inhabitants.

The latitude of Observation Island, from two meridian altitudes to the north and south, is 15° 36' 46" S.  

Longitudes from six sets of distances of the sun east of the moon, given in Table IV. of Appendix No. 1, 137° 6' 42"; but by the time keeper No. 543 corrected, it is preferably 137 3 15 E.

The rates of the time keepers were found from afternoon's altitudes in an artificial horizon, between the 16th and 26th . . .

Variation of the theodolite, observed on the east side of South-west Island - - - - - 2° 22' east.

In the bearings taken at different parts within the group, the variation seemed to differ from 2° 30' to 1° 30'. The largest variations were on the east sides of the islands, and the smallest on the west sides; seeming to show an attraction of the land upon the south end of the needle. On board the ship, when coasting along the east side of Vanderlin's Island, and the whole group lay to the west, the variation appeared from the bearings to be as much as 4° east.

The best observation made on the tide, was on the 23rd, during my boat excursion to the south end of Vanderlin's Island. On that morning the moon passed over the meridian at sixteen minutes past ten, and the perpendicular movements of the tide were as follows. At seven o'clock, when I left the shore, the tide was falling; on landing at nine it was stationary, and appeared to be low water; at noon it rose fast, and at three was still rising, and continued so to do, but slowly, until seven in the evening. The tide then began to fall; but after subsiding one foot, it rose again until ten o'clock, and had then attained its greatest height. Low water took place therefore about an hour before, and high water at eleven hours and a quarter after the moon passed the meridian: the rise appeared to be from four to seven feet. At Wellesley's Islands high water had taken place an hour and a half earlier, which seems extraordinary, if, as it necessarily must, the flood come from the northward. I think it very probable, that the tide in both places will follow what was observed in King George's Sound on the South Coast; where high water, after becoming gradually later till midnight, happened on the following day before seven in the evening, and then later as before.

The break of three hours in the tide here, is somewhat re-
markable: it was not observed amongst Wellsley’s Islands, where the tide ran twelve hours each way; but was found to increase as we proceeded west and northward until it became six hours, and the tides assumed the usual course.

The coast of the western side of the Gulf of Carpentaria to which Flinders now proceeded is very much more intricate and there were many places where time and the condition of the ship (and perhaps the later loss at Wreck Reef of some charts relating to this section) compelled him to approximate. None the less, it was no mean achievement to lay down by a mere two months’ work right in the middle of the wet season a very adequate outline of this mass of inlets and islands. In many sheltered anchorages he found more evidence of the Macassan trepangers, and eventually on 17 February met a part of the fleet in what he called Malay Road off the north-east corner of Arnhem Land. His account of the Macassans is not only one of the earliest, but also one of the most informative. Flinders actively sought out information with an open mind. The same could be said for Pobassoo, the commodore of a section of the fleet.

After clearing the narrow passage between Cape Wilberforce and Bromby’s Isles, we followed the main coast to the S.W.; having on the starboard hand some high and large islands, which closed in towards the coast a-head so as to make it doubtful whether there were any passage between them. Under the nearest island was perceived a canoe full of men; and in a sort of roadsted, at the south end of the same island, there were six vessels covered over like hulks, as if laid up for the bad season. Our conjectures were various as to who those people could be, and what their business here; but we had little doubt of their being the same, whose traces had been found so abundantly in the Gulph. I had inclined to the opinion that these traces had been left by Chinese, and the report of the natives in Caledon Bay that they had fire arms, strengthened the supposition; and combining this with the appearance of the vessels, I set them down for piratical Ladrones who secreted themselves here from pursuit, and issued out as the season permitted, or prey invited them. Impressed with this idea, we tacked to work up for the road; and our pendant and ensign being hoisted, each of them hung out a small white flag. On approaching, I sent lieutenant Flinders in an armed boat, to learn who they were; and soon afterward we came to an anchor in 12 fathoms, within musket shot; having a spring on the cable, and all hands at quarters.

Every motion in the whale boat, and in the vessel along-side which she was lying, was closely watched with our glasses, but all seemed to pass quietly; and on the return of lieutenant Flinders, we learned that they were prows from Macassar, and the six Malay commanders shortly afterwards came on board in a canoe. It happened fortunately that my cook was a Malay, and through his means I was able to communicate with them. The chief of the six prows was a short, elderly man, named Pobassoo; he said there were upon the coast, in different divisions, sixty prows, and that Salloo was the commander in chief. These people were Mahometans, and on looking into the launch, expressed great horror to see hogs there; nevertheless they had no objection to port wine, and even requested a bottle to carry away with them at sunset.

The weather continued squally all night, with frequent heavy rain, and the wind blew strong; but coming off the islands, the ship rode easily. In the morning, I went on board Pobassoo’s vessel, with two of the gentlemen and my interpreter, to make further inquiries; and afterwards the six chiefs came to the Investigator, and several canoes were along-side for the purpose of barter. Before noon, five other prows steered into the road from the S.W., anchoring near the former six; and we had more people about the ship than I chose to admit on board, for each of them wore a short dagger or cress by his side. My people were under arms, and the guns were exercised and a shot fired at the request of the chiefs; in the evening they all retired quietly, but our guns were kept ready and half the people at quarters all night. The weather was very rainy; and towards morning, much noise was heard amongst the prows. At daylight they got under sail, and steered through the narrow passage between Cape Wilberforce and Bromby’s Isles, by which we had come; and afterwards directed their course south-eastward into the Gulph of Carpentaria.
My desire to learn every thing concerning these people, and the strict look-out which it had been necessary to keep upon them, prevented me attending to any other business during their stay. According to Pobassoo, from whom my information was principally obtained, sixty prows belonging to the Rajah of Boni, and carrying one thousand men, had left Macassar with the north-west monsoon, two months before, upon an expedition to this coast; and the fleet was then lying in different places to the westward, five or six together. Pobassoo’s division being the foremost. These prows seemed to be about twenty-five tons, and to have twenty or twenty-five men in each; that of Pobassoo carried two small brass guns, obtained from the Dutch, but the others had only muskets; besides which, every Malay wears a cress or dagger, either secretly or openly. I inquired after bows and arrows, and the ippo poison, but they had none of them; and it was with difficulty they could understand what was meant by the ippo.3

The object of their expedition was a certain marine animal, called tre pang. Of this they gave me two dried specimens; and it proved to be the beche-de-mer, or sea cucumber which we had first seen on the reefs of the East Coast, and had afterwards hauled on shore so plentifully with the seine, especially in Caledon Bay. They get the tre pang by diving, in from 3 to 8 fathoms water; and where it is abundant, a man will bring up eight or ten at a time. The mode of preserving it is this: the animal is split down one side, boiled, and pressed with a weight of stones; then stretched open by slips of bamboo, dried in the sun, and afterwards in smoke, when it is fit to be put away in bags, but requires frequent exposure to the sun. A thousand tre pang make a picol, of about 125 Dutch pounds; and one hundred picols are a cargo for a prow. It is carried to Timor, and sold to the Chinese, who meet them there; and when all the prows are assembled, the fleet returns to Macassar.4 By Timor, seemed to

be meant Timor-laacet; for when I inquired concerning the English, Dutch and Portuguese there, Pobassoo knew nothing of them; he had heard of Coepang, a Dutch settlement, but said it was upon another island.

There are two kinds of tre pang. The black, called baatoo, is sold to the Chinese for forty dollars the picol; the white, or grey, called koro, is worth no more than twenty. The baatoo seems to be what we found upon the coral reefs near the Northumberland Islands; and were a colony established in Broad Sound or Shoalwater Bay, it might perhaps derive considerable advantage from the tre pang. In the Gulph of Carpentaria, we did not observe any other than the koro, or grey slug.

Pobassoo had made six or seven voyages from Macassar to this coast, within the preceding twenty years, and he was one of the first who came; but had never seen any ship here before. This road was the first rendezvous for his division, to take in water previously to going into the Gulph. One of their prows had been lost the year before, and much inquiry was made concerning the pieces of wreck we had seen; and a canoe’s rudder being produced, it was recognised as having belonged to her. They sometimes had skirmishes with the native inhabitants of the coast; Pobassoo himself had been formerly speared in the knee, and a man had been slightly wounded since their arrival in this road: they cautioned us much to beware of the natives.

They had no knowledge of any European settlement in this country; and on learning the name Port Jackson, the son of Pobassoo made a memorandum of it as thus,

\[\text{writing from left to right.}^5\]

Until this time, that some nutmegs were shown to them, they did not know of their being produced here; nor had they ever met with cocoa nuts, bananas, or other edible fruits or vegetables; fish, and sometimes turtle, being all they procured. I inquired if they knew of any rivers or openings leading far inland, if they made charts of what they saw, or

\[\text{These strange characters read 'Podjesenje', which is, as Flinders thought, a phonetic transcription of 'Port Jackson'. In the reverse process, Flinders writes 'Pobassoo' for the Macassarese name 'Pu Baso'.}\]

3 In his original log book, Flinders adds ‘for which the Macassan people are noted’. The name of ippo, a poison made from the bark of a tree, had reached Europe with the return of the very earliest voyagers to Indonesia. Over the intervening centuries its potency had been exaggerated until even its smell, or the vicinity of the tree from which it is obtained, was reputed to be fatal.

4 There is clearly some confusion here. The fleet almost certainly returned to Macassar to sell the tre pang.
used any charts? To all which Pobassoo answered in the negative. There was a river at Timor, into which the ship could go; and he informed me of two turtle islands, one of them not far to the north-west of our situation in the road; the other would be seen from the mast head as we sailed along the shore.

I could find no other nautical instrument amongst them than a very small pocket compass, apparently of Dutch manufacture; by this their course is directed at sea, without the aid of any chart or astronomical observation. They carry a month’s water, in joints of bamboo; and their food is rice, cocoa nuts, and dried fish, with a few fowls for the chiefs. The black gummotoo rope, of which we had found pieces at Sir Edward Pellew's Group, was in use on board the prows; and they said it was made from the same palm whence the sweet sirup, called gulah, is obtained.

My numberless questions were answered patiently, and with apparent sincerity; Pobassoo even stopped one day longer at my desire, than he had intended, for the north-west monsoon, he said, would not blow quite a month longer, and he was rather late. I rewarded his trouble and that of his companions with several presents, principally iron tools, which they seemed anxious to possess; and he begged of me an English jack, which he afterwards carried at the head of his squadron. He also expressed a desire for a letter, to show to any other ship he might meet; and I accordingly wrote him a note to captain Baudin, whom it seemed probable he might encounter in the Gulph, either going or returning.

So soon as the prows were gone, the botanical gentlemen and myself proceeded to make our examinations.

A few days later, Flinders gives us an account of what was involved in charting at least a small area in detail.

The weather was still squally on the 23rd, but in the afternoon became finer; and at three o’clock we steered south-westward, between the islands and the main, with a flood-tide in our favour and the whale boat sounding ahead . . . At dusk in the evening we came to, in 5 fathoms muddy ground, in a place much like Malay Road; it is formed by Inglis’ and Bosanquet’s Islands, and except in a space between them, of half a mile wide, we had land at various distances all round.

Inglis’ Island forms here a pretty looking cove, in which is a woody islet. In the morning I sounded the cove; and finding it to be shallow, went on, accompanied by the landscape painter, to take bearings from the steep north-east head of the island. From thence the main coast was visible four leagues further, extending in the same south-western direction; at the end of it was an island of considerable elevation, which I named Mallison's Island, and west of it another, with land running at the back. The bearings which most served to prolong the survey, were these:

- Pobassoo’s I., east cliff, in a line with Malay Road, N. 55° 0’ E.
- Moved back S. 53° W. ¾ mile.
- Mallison’s I., steep south-east head, —— S.38 25° W.
- ———, outer of two rocks on the north-west side, S.48 47° W.

We had not brought any provision in the boat; but Inglis’ Island appearing to terminate three or four miles further on, I hoped to make the circuit, and reach the ship to a late dinner. An Indian followed along the shore, inviting us by signs to land; but when the boat’s head was turned that way, he retreated into the wood, and we had no time to follow, or to wait his pleasure to come down; for a good deal of delay had been caused by the tide, and the island was found to extend several miles further than was expected, to another steep head, from which I was desirous to obtain a set of bearings. At five o’clock, when we reached the head, it rained fast, which deterred me from attempting the steep ascent, and we pushed onward; but the island, instead of terminating here, extended four miles further in a west direction, to a low point, where sunset and the bad weather obliged us to stop for the night. No wood could be found to make a fire, nor had we any tent; and from the rain, the cold, and musketoes, and our want of dinner, the night passed uncomfortably.

At day-light, I took bearings from the low south-west point, whilst Bongaree speared a few fish . . . The main coast was close at the back of, and perhaps joined the Probable Island; and to the south of it were other lands, apparently insulated,
between which and Mallison’s Island was an opening of four miles wide, which I marked for our next anchorage.

Bongaree was busily employed preparing his fish, when my bearings were concluded. The natives of Port Jackson have a prejudice against all fish of the ray kind, as well as against sharks; and whilst they devour with eager avidity the blubber of a whale or porpoise, a piece of skate would excite disgust. Our good natured Indian had been ridiculed by the sailors for this unaccountable whim, but he had not been cured; and it so happened, that the fish he had spared this morning were three small rays and a mullet. This last, being the most delicate, he presented to Mr. Westall and me, so soon as it was cooked; and then went to saunter by the water side, whilst the boats’ crew should cook and eat the rays, although, having had nothing since the morning before, it may be supposed he did not want appetite. I noticed this in silence till the whole were prepared, and then had him called up to take his portion of the mullet; but it was with much difficulty that his modesty and forbearance could be overcome, for these qualities, so seldom expected in a savage, formed leading features in the character of my humble friend. But there was one of the sailors also, who preferred hunger to ray-eating! It might be supposed he had an eye to the mullet; but this was not the case. He had been seven or eight years with me, mostly in New South Wales, had learned many of the native habits, and even imbibed this ridiculous notion respecting rays and sharks; though he could not allege, as Bongaree did, that ‘they might be very good for white men, but would kill him.’ The mullet accordingly underwent a further division; and Mr. Westall and myself, having no prejudice against rays, made up our proportion of this scanty repast from one of them.

We rowed northward, round the west end of Inglis’ Island, leaving a hummocky isle and a sandy islet to the left; but on coming to a low point with a small island near it, the rapidity of the flood tide was such, that we could not make head way, and were obliged to wait for high water. I took the opportunity to get another set of bearings, and then followed the example of the boats’ crew, who not finding oysters or any thing to eat, had fallen asleep on the beach to forget the want of food.

It was high water at eleven o’clock, and we then passed between the islet and sandy point, and across two rather deep bights in Inglis’ Island; and leaving three rocks and as many small islands on the left hand, entered the passage to the west of the ship, and got on board at two in the afternoon.

This island is twelve miles long, by a varying breadth of one to three miles. Its cliffs and productions are much the same as those of Cotton’s Island; but in the south-eastern part it is higher, and the size and foliage of the wood announced more fertility in the soil.

The construction of my chart, and taking bearings from the north end of Bosanquet’s Island, occupied me the next day; astronomical observations were also taken; and it appeared that the clifffy east end of Bosanquet’s Island, a mile north of the anchorage, was in 11° 57½ south, and 136° 19’ east. According to the swinging of the ship in the evenings, the flood tide ceased to run at eight hours and a half after the moon passed the upper meridian, whereas in the mornings it ceased seven hours and a half after the moon passed below; whether the same difference took place in the times of high water by the shore, I cannot tell; but if the mean of the morning’s and evening’s tides be taken as the time of high water, it will follow eight hours after the moon, the same nearly as in Malay Road.

At the end of the first week in March, Flinders had completed the survey of Arnhem Bay, and the hard decision had to be made.

For the last several days the wind had inclined from the eastward, and at this time blew a steady breeze at E. by S., with fine weather; as if the north-west monsoon were passed, and the south-east trade had resumed its course. We had continued the survey of the coast for more than one-half of the six months which the master and carpenter had judged the ship might run without much risk, provided she remained in fine weather and no accident happened; and the remainder of the time being not much more than necessary for us to reach Port Jackson, I judged it imprudent to continue the investigation longer. In addition to the rottenness of the ship, the state of my own health and that of the ship’s company were urgent to terminate the examination here; for nearly all had become debilitated
from the heat and moisture of the climate,—from being a good deal fatigued,—and from the want of nourishing food. I was myself disabled by scurvy sores from going to the mast head, or making any more expeditions in boats; and as the whole of the surveying department rested upon me, our further stay was without one of its principal objects. It was not, however, without much regret that I quitted the coast; both from its numerous harbours and better soil, and its greater proximity to our Indian possessions having made it become daily more interesting; and also, after struggling three months against foul winds, from their now being fair as could be wished for prosecuting the further examination. The accomplishment of the survey was, in fact, an object so near to my heart, that could I have foreseen the train of ills that were to follow the decay of the Investigator and prevent the survey being resumed,—and had my existence depended upon the expression of a wish, I do not know that it would have received utterance; but Infinite Wisdom has, in infinite mercy, reserved the knowledge of futurity to itself.

Flinders briefly touched at the Wessel Islands in October 1803 on his way back to England, and that was the end of his exploring.

Further reading. There is a considerable literature on Flinders. The best recent biography is J. D. Mack, Matthew Flinders 1774–1814 (Melbourne, 1966) and this also provides a guide to other material. Flinders's Voyage to Terra Australis has been magnificently republished in facsimile by the Libraries Board of South Australia, Australiana Facsimile Editions no. 37 (Adelaide, 1966). A definitive edition of Flinders's actual logbooks together with extracts from the journals of his associates, is in course of preparation by Dr T. M. Perry. The work of the landscape artist on the Investigator has been splendidly published in T. M. Perry and D. H. Simpson (eds), Drawings by William Westall (London, 1962).

3 Exploring in H.M.C. Mermaid

Phillip Parker King

Flinders's work was continued by a man whom he himself had interested in hydrography. Phillip Parker King was born in 1791 on Norfolk Island, where his father commanded the early settlement. He returned to England with his parents in 1796 and eventually entered the navy in 1807, just after his father, who had returned to Australia, had completed his term as Governor of New South Wales.

In 1817 the peace with France provided the circumstances to continue Flinders's work, and Lieutenant King was sent out to Sydney where he was to acquire a vessel and crew. The Mermaid, a cutter of only 83 tons, was chosen and a full complement of nineteen, including Allan Cunningham the botanist and Flinders's Aboriginal companion, Bungaree, set out in December 1817 for northern Australia. King kept much the same group of officers for three extensive voyages in this tiny boat, and their achievement in exploration is remarkable. In 1820 when the Mermaid struggled back to Sydney after her third voyage, she needed vast repairs, and as a replacement King purchased a 170-ton brig, which he renamed the Bathurst. He remarked:

1 The most useful map for this chapter is on p. 75.
By this change we gained a great addition to our comforts; and, besides increasing the number of our crew, were much better off in regard to boats; for we now possessed a long-boat, large enough to carry out and weigh an anchor, or save the crew if any accident should happen to the vessel; a resource which we did not possess in the Mermaid.

Despite the disadvantages under which he had previously laboured, King's surveying had been of a very high standard and this was continued on the Bathurst. It was in this vessel that King completed his fourth voyage (his third circumnavigation of the continent), and then returned to England in 1822. Here he finished his work on the charts and wrote up the account of his voyages which he published with a number of scientific appendices. The extract below is taken from the first of the two volumes of the Narrative of a Survey of the Intertropical and Western Coasts of Australia. Performed Between the Years 1818 and 1822 (London, 1827).

When King reached England he was still only thirty-one and had just been appointed commander. It was the beginning of a distinguished career as a hydrographer and later as a colonial man of affairs. From 1826 to 1830 he commanded a surveying voyage to South America, and in 1832 returned to New South Wales where he remained, apart from a few brief absences, until his death in 1856. The previous year he had been promoted rear-admiral on the retired list, the highest naval rank attained by any native-born Australian for many years thereafter.

King's most extensive and original discoveries were on the barren north-west coast of Australia, which he visited on each of his four major voyages. The general outline of the coast was known both from the Dutch charts and from the superficial visits of Baudin in 1801 and 1803, but King's excellent charts filled in much detail and corrected several important mistakes, particularly in western Arnhem Land and Van Diemen Gulf. As his clear and businesslike narrative reveals, he passed fairly rapidly along the coast, but landed frequently. He had a number of unfortunate clashes with Aborigines but in most cases it is difficult to see how he could have acted other than he did. In general he was afraid of the vastly superior numbers of the
Macassan praus that he met, and avoided them where possible.

On 8 May 1819 he left Sydney on his second voyage and sailed north up the east coast, adding further detail to the surveys of Cook and Flinders. From Torres Strait he crossed directly to the north coast of Arnhem Land and areas that he had charted in some detail the previous year. He took up the survey again in Clarence Strait and proceeded rather quickly past various inlets until he came to Cape Londonderry at the beginning of October.

We had now reached a part of the coast which, excepting a few of the islands that front it, the French expedition did not see: we should, therefore, have commenced its examination with more pleasure had we been in a state better fitted for the purpose; for we were rapidly consuming our stock of water without any prospect of finding a supply at this season; and this, added to the loss of our anchors, considerably lessened the satisfaction we should otherwise have felt in viewing the prospect before us.

After a calm and sultry morning, a breeze from the N.E. carried us towards the land, the situation of which was pointed out by the smoke of natives’ fires. A little before three o’clock it was seen from the deck, and, as we stood towards it, we narrowly escaped striking on a part of the shoal that extends off Cape Londonderry: our course was then directed towards some broken land in the S.W., which proved to be a group of islands, with a considerable sinuosity in the coast behind them: the eastern head of the bay was called Cape Talbot, after the then Lord Lieutenant of Ireland. Between this and Cape Londonderry the coast is very low, and defended by an extensive reef, which in many parts was dry.

During the night we stood off shore, and, at daylight, were eight miles from the islands. At nine o’clock, being calm, we anchored to the north of the group, which was named Sir Graham Moore’s, in compliment to the gallant admiral then holding a seat at the Admiralty Board. The principal island is more elevated than the rest, and has a flat tabular summit: it bore, from the anchorage, S. 19° E., three miles and a half.

The sea-breeze set in from N.W. with the change of tide; as soon as the sun’s meridional altitude was observed, we got under sail, and steered to the W.S.W.; but were soon after obliged to alter the course, to avoid a shoal on which the sea was breaking within fifty yards of us. After passing this danger, we found ourselves in a deep channel, the seaward limit of which was formed by an extensive reef connected with Jones’ Island. At sunset we anchored within one mile and a half of the shore in five fathoms and a half, soft sandy mud, off the entrance of a considerable bight or bay; which appeared to be so nearly blocked up by a reef of dry rocks, that it was doubtful whether we should be able to penetrate without going round the Eclipse Islands; these islands were so named, in consequence of an eclipse of the moon that took place in the evening; and the flat-topped mount, which is conspicuous on the principal island of the group, was named Eclipse Hill.

The next morning was passed in examining the reefs to the southward; we first landed on the south-east end of Long Island, where a set of bearings and a tolerable view up the bay were obtained. Long Island is of a rugged character, and formed principally of large water-worn masses of quartzose sand-stone, superincumbent upon a basis of the same rock. The spaces between them were occupied by a variety of plants, the examination of which fully employed Mr. Cunningham: natives’ traces and fire-places, and the remains of a turtle-feast were observed; but there were no signs of the islands having been very recently visited by the Indians: we afterwards landed upon some dry rocks that lie in the mid-channel, and, whilst I was occupied in taking bearings, the boat’s crew fished, but with little success on account of the rapidity of the tide. After this we found and examined a tolerably wide and deep channel on the eastern side of the Middle Rocks; through which, as it appeared to be free from danger, the cutter was worked the next morning, and afterwards anchored near the western side of the bay; where the verdant appearance of the grass and trees, that clothed the sides of the hills, induced me to land for the purpose of searching for water; we were, however, disappointed: large streams of water had evidently very late.
poured down the gullies; but there was not the least vestige of
any remaining.

On the beach of one of the sandy bays, the traces of natives
were more numerous than usual; for we counted as many as
forty small fire-places arranged in a straight line along the
beach; near to each were lying the stones on which the Indians
had evidently been bruising seeds, particularly of the fruit of
a new species of *sterculia*, the husks of which were strewed
about; near the fire-places were the remains of two huts; one
of them was thrown down, but the other was perfect enough to
give us an idea of its form, and for us to recognise its resem-
blance to some we had seen on the East coast.

A curious implement was found on the shore, the use of
which we could not at all conjecture, unless it had belonged
to the Malays; it was fifteen feet long and five inches in
diameter, and composed of three saplings firmly and closely
united, and covered with grass secured to it by rope twisted
of strips of bark; it might have been a fender for the purpose
of hanging between the Malay proas, when moored together, to
prevent their being injured by their sides coming in contact.

The shores and hills were thickly scattered over with large
masses of a dark red-coloured sand-stone, covered with a crust
of quartz; the latter substance was not, however, found in a
crystallized state. Every thing bore the most parched and arid
appearance; the country was certainly seen by us at the most
disadvantageous season; but, although the hills are thickly
wooded, the dwarf and stunted habit of the trees is a proof, if
we had required it, of the shallow and unproductive quality of
the soil. The smoke of three or four large fires were noticed
on the opposite side of the bay, the flames of which blazed up
as the sea-breeze set in. Recent and numerous tracks of the
kangaroo were observed in all directions. Fish were abundant,
but none were caught. Before returning on board, we visited
two other places in the bay, to make further search for water,
but with no better success; and we began to despair of finding
any upon the coast.

We weighed the next day with the sea-breeze, and anchored
in the south-east corner of the bay: in the evening we landed
on a projecting point close to the anchorage, and ascended its
summit, which was so thickly covered with climbing plants,
that it was called Vine Head. From this station an extensive
view was obtained of the bottom of the bay; and, as it was
nearly low water, the time was favourable for my purpose.
Near the anchorage was a small mangrove opening, the
entrance of which was blocked up by a dry mud bank.

When we landed we found a piece of wood upon the beach
with a nail-hole in it: it had probably been part of a Malay
proa; for a fleet of such visitors, consisting of twenty-six vessels,
on the trepang fishery, was seen in this neighbourhood by the
French in 1801; and, according to their report, annually visit
this part of the coast.

This day was spent in examining the shores of the bottom
of the bay. We first pulled up the arm to the eastward of Vine
Head, which trends in for one mile, and then examined the
bay on its western side, which was found to be both shoal and
rocky. We next rowed inside of Jar Island, whose peaked sum-
mits forms a very good mark for the channel between the Middle
and Long Rocks. In pulling towards the west side of the bay, at
the back of Jar Island, a native was perceived running along the
rocky shore towards the point we were steering for; round
which, as we passed it yesterday, there appeared to be a deep
cove or inlet. As we pulled along the shore, we were amused
in watching how nimbly the Indian leaped from rock to rock:
he was alone and unarmed. At one time we pulled close to
the shore, and endeavoured to entice him to approach us, but
he stood looking at us from the summit of a rocky eminence
close to the beach, without attending to our invitations; and,
upon our repeating them and resting on our oars, he retreated
towards the smoke of a fire that was burning behind the
mangroves on the south shore at the bottom of the inlet, into
which we were pulling; on approaching it, we found that the
native had already arrived and given the alarm to a family of
Indians, consisting of three men, two women, and four children,
who had been cooking their repast.

As soon as our approach was discovered, the women took
their baskets and moveables and hurried away with the chil-
dren, whilst the men seized their spears to protect their retreat; but as our object was not to alarm these poor savages, we pulled over to the opposite shore, which was about sixty yards across, and landed: Mr. Cunningham and I then ascended a steep hill that rose immediately from the shore, the summit of which promised to afford us a prospect of the surrounding land. The view, however, from this eminence, although extensive, did not answer my expectation: a low country, of an arid and barren appearance, extended to the southward; the northern part of the land, on which we were, appeared to be that described by the French as Bougainville Island, but it was now clearly and distinctly ascertained to be a peninsula: our view to the northwest was intercepted by higher hills than those we were upon. After taking all the bearings that the confined prospect permitted, without having very materially improved my knowledge of the surrounding country, I began to think of returning to the boat, and, looking towards the natives, perceived that they had left the tree, and were standing about fifty yards farther back, attentively engaged in consultation, and in watching our movements: besides their spears they carried short pieces of wood like throwing sticks, and one of them also held in his hand a shield. After some deliberation, they moved quickly forward towards the foot of the hill on which we were, evidently with an intention of intercepting our return to the boat, but when we began to descend the hill, they stopped, and slowly retired to their former station; had they persevered, they would have easily cut off our retreat, and as we had forgotten the precaution of arming ourselves, the consequence might have been serious. This movement of the natives made us suspicious of no very friendly intentions on their part, and hurried our return to the boat; but, the descent being steep and strewed with rocks, which were concealed by grass higher than our middles, we did not reach the bottom of the hill without several bruises.

Upon re-embarking, we perceived that the natives had again ascended the tree to watch our movements; but when they saw the boat pulling across the stream towards them, they leaped down and retired among the trees. After repeated calls, which had not the effect of inducing them to approach, we rowed out

of the cove, and, on passing a projecting point that was less wooded than other parts, Mr. Cunningham expressed a wish to collect some specimens of the plants that were growing upon it. Whilst meditating upon the propriety of landing so near to the natives, whose conduct we had already some reason to suspect, a dog, which we had before seen with them, came from behind a bush near the water’s edge, and walked up to its knees in the water towards us; the boat was backed in, and we endeavoured to entice it within our reach by throwing some food; but the animal, upon discovering that we were strangers, became shy, and, after smelling about, ran back towards a bush about fifty yards off; from which the natives, who had all the time been concealed behind it, rushed out, and with loud shouts ran towards us: upon reaching the water’s edge, they threw several stones, one of which nearly struck the boat; they then prepared their spears, when it was found necessary to deter them by firing a musket over their heads; the noise of which had the desired effect; for, struck with a sudden panic at the report which echoed through the trees, they turned and fled; and, as they scrambled off, two more balls were fired over them, which, if possible, increased the rapidity of their flight, until the trees concealed them from our view; after this we neither heard nor saw any thing more of them.

This circumstance gave the name of Encounter Cove to the inlet. On our return we called at Jar Island and walked over it, but with difficulty, on account of the confused heaps of rugged stones that were strewed over its rocky surface. The spinifex, that grew in the interstices of the rocks, was also no inconsiderable hindrance to our movements. Behind the beach was a large basin full of salt water that, in the wet season, would doubtless furnish fresh, since it appeared to have been formed by the runs from the rocks, the upper surfaces of which were hollowed out by the effect of the rain: these holes or cisterns are probably full of water in the wet season.

On the beach we found a broken earthen pot, which decidedly proved the fact of the Malays visiting this part of the coast, and explained the mischievous disposition of the natives. Before we returned to the cutter, we landed on some rocks in the bay,
at the back of Jar Island, to fish, but having very little success we did not delay, and by sunset reached the vessel.

On the 7th we left the anchorage under Vine Head, and by the aid of a breeze from the N.W. worked out of the western entrance of the bay, which appeared to be quite free from danger of every sort.

At sunset we anchored in the outer part of the entrance in nine fathoms and a half, muddy bottom. On the west side of the peninsula we passed three bays, from one to two miles deep and one mile broad; in each of these inlets there appeared to be good anchorage.

The bay was named Vansittart, after the late Chancellor of the Exchequer.

At daylight (8th) we weighed and stood out to the N.W., between Troughton Island and Cape Bougainville. Round the latter projection the land trends so deeply in to the southward that it was lost to view; but two flat-topped islands were seen in the S.S.W., which afterwards proved to be some of Captain Baudin’s Institute Isles; we were now obliged to steer down the western side of the cape, for our further progress to the westward was stopped by a considerable reef, extending north and south parallel with the land of Cape Bougainville. During the afternoon we had the wind and tide against us, so that we made no progress. Some bights in the coast were approached with the intention of anchoring in them, but the water was so deep and the ground so unfavourable for it, that the stream anchor was eventually dropped in the offing in twenty-two fathoms: where, during the night, the tide set with unusual velocity, and ran at the rate of one knot and three-quarters per hour. In the morning, a view from the mast-head enabled me to see a confused mass of rocks and islets in the S.W. At eight o’clock the flood tide commenced, and the anchor being weighed, we steered towards the bottom of the gulf; on our way to which, the positions of several small rocks and islets, which form a part of this archipelago, were fixed. At noon our latitude was 14° 7’ 15”, when the hill, which we ascended over Encounter Cove in Vansittart Bay, was seen bearing S. 88° E. The land to the southward was still far distant, but with a fresh

‘Boon-ga-ree, Aboriginal of New So. Wales, who accompanied me on my first voyage to the NW Coast’, by Phillip Parker King, 1819. This is the same Bungaree or Bungaree who sailed with Flinders. The chain probably supports a brass plate inscribed ‘Bungaree: King of the Blacks’, presented by Governor Macquarie in 1815.
sea breeze we made rapid progress towards it, and by four o'clock entered an extensive port at the bottom of the gulf, and anchored in a bay on its western shore, land-locked, in four fathoms and three-quarters, mud. In finding this anchorage we considered ourselves fortunate, for the freshness of the breeze, in so dangerous a situation, made me feel uneasy for our only anchor, which we must have dropped at night, however exposed our situation might have been: by midnight the breeze fell, and we had a dead calm.

The next day we landed on the west head of the bay, Crystal Head, where the meridional altitude of the sun was observed, and sights for the chronometers taken; in the evening we ascended its summit, and by a bearing of the land of Cape Bougainville the survey was connected with Vansittart Bay.

In the morning a young kangaroo was started by Mr. Cunningham, but made its escape; the traces of these animals were very numerous on the sides of the hills; several birds, new to us, were seen, and we also found about the bushes the tail-feathers of the *cuculus phasianus*. The summit of Crystal Head is of flat tabular form; and the sides, which are both steep and rugged, are covered with stunted trees and high grass, now quite dry: the geology of this part is principally of siliceous sandstone; and on the beach we found large detached water-worn masses of the same rock, incrusted with quartz and epidote in a crystallized state.

No natives were seen; but, from the large fires that were burning, a numerous party was probably collected at the bottom of the port.

On the 11th we got under weigh, and anchored again at a few miles further up the port, near a small rocky island, where the latitude was observed to be 14° 32' 45". In the afternoon, Mr. Roe and Mr. Cunningham accompanied me in the whale-boat, to examine the bottom of the port; which was found to terminate in two inlets, winding under either side of a bold prominent range of steep rocky hills, thickly clothed with stunted trees. We pulled up the south-eastern arm; and, having proceeded as far as prudence allowed, for from not calculating upon being absent long we had brought no provisions, we
returned on board with the intention of examining it further on the following day. In rowing back, a kangaroo was seen skipping over the hills; and an alligator was lying asleep on the beach, but it rushed into the water as we passed the spot.

The next day Mr. Roe, accompanied by Mr. Cunningham, explored both arms; and from his report the plan is made: but as they are merely salt-water inlets, they are of little importance. During the absence of the boat, the state of our provisions and water was examined, on both of which, as we had anticipated, the rats had made considerable havoc; two of the casks were quite empty, from holes gnawed by these animals to get at the water; and several were so short of their contents, that we had but a fortnight's allowance left: this discovery induced me to determine on taking the first opportunity that should offer of leaving the coast, and resorting to Timor; for, besides our want of water, several of the crew were attacked by scurvy, so that it was also necessary to visit it to procure some fresh provisions for them.

Port Warrender, which name was bestowed upon this fine harbour, is of considerable extent; the land is very rugged and rocky; but although the soil is shallow, the hills on the western side are thickly covered with grass and trees; which grew so luxuriantly in the gullies, and bore so verdant an appearance, that fresh hopes were revived of finding water; we were, however, very soon convinced of its being entirely destitute of it.

On the eastern side of the port the land is much broken, and fronted by several islands which were named after Sir John Osborn, one of the Lords of the Admiralty; among them is a conspicuous steep rocky head, like Mount Cockburn in Cambridge Gulf; it appeared to be perfectly inaccessible.

At daylight (13th) we left the port; we had very little wind during the day, and by sunset had only reached an anchorage off Point Pickering, so named after a late much-respected friend.

A bay trends to the westward of Point Pickering, which was called Walsmsley Bay;—it probably affords good anchorage.

During the night we had lightning from the N.W., and the next day the wind was so light that we did not make much progress; an anchorage was occupied during the ensuing night to the eastward of Point Biggs, half a mile to the northward of a small rocky island, in ten fathoms and a half, muddy bottom. Every succeeding day, the weather was getting more and more unfavourable for our purpose; which increased my anxiety to escape from this labyrinth of islands and shoals; for we had evidently no time to spare, in order to leave the coast before the rainy season should commence.

The whole of this gulf is admirably formed for the trepang fishery, and the animal is extremely abundant among the reefs. Both fish and turtle are plentiful, the latter are of very large size; none, however, were taken to determine its species. We have seen very few inhabitants on this part of the coast, but at this season they are doubtless divided into small detached parties, for the greater facility of procuring sustenance, and of making their reservoirs of water, wherever they may be, last longer.

The next day, after an ineffectual attempt to pass out through the islands in the vicinity of Cape Voltaire, we anchored about mid-way between three of high flat-topped form; and at night the boat was despatched to the easternmost island, to watch for turtle, but it returned without having seen any. During the night, the wind blew a moderate breeze from S.W., with dark cloudy weather. At daylight we weighed, but from light baffling winds, it was some time before we cleared the islands. The tide, however, swept us out, and drifted us half a mile to windward of a small peaked island which must be the Pascal Island of the French: this islet is of small size, but remarkable for its conical shape, and having, as it were, its apex cut off. It is surrounded by a rocky shoal of small extent.

The wind had now veered to W.N.W., and obliged our passing to the eastward of Cassini Island (of Captain Baudin); and, from the immense numbers of turtle-tracks that were seen upon its beach, we would gladly have anchored near it, had a convenient place offered; but the bottom was so deep, that we could not with safety drop our anchor. The plan given by M. de Freycinet of this archipelago is so defective, that many of his islands could not be recognised; but those which were made out preserve his names. Cassini Island is sufficiently well placed by
him, and was an useful point for the sake of comparing our longitudes. In the space between Cape Bougainville and Cape Voltaire, which was named the Admiralty Gulf, we have given positions to at least forty islands or islets.

Having now emerged from the archipelago of islands which front this part of the north-west coast, we seized the opportunity of taking leave of it for the present, and directed our course for Timor.

The Mermaid reached Kupang after some difficulty on 1 November and fresh supplies of wood, water, sheep, coconuts, limes, bananas, mangoes, jack fruit and honey were easily obtained. After a brief stay, King then sailed directly to Sydney by way of Bass Strait. He arrived on 12 January 1820, thus completing the voyage around the continent.

FURTHER READING. The best account of King’s activities is to be found in G. C. Ingleton, Charting a Continent (Sydney, 1944). The Libraries Board of South Australia is preparing a facsimile edition of King’s Narrative. I. Lec, Early Explorers in Australia (London, 1925) contains Cunningham’s journal of his voyages with King.

4 The Visit of the Astrolabe and the Zélée

DUMONT D’URVILLE

The most widely travelled of all the early visitors to northern Australia was undoubtedly Captain Jules Sébastien César Dumont d’Urville. Born in 1790, this French naval officer participated in a quite remarkable variety of undertakings, and helped to acquire for his country both Tahiti and the Venus de Milo. He began his career in the navy as a hydrographer and, after extensive experience in the Mediterranean, first came to the Pacific in 1822–5 in the Coquille. Almost as soon as he returned to France, d’Urville was sent off again, this time in command of the same vessel which he renamed the Astrolabe. Most of the period 1826–9 was spent in scientific work around Australia and in the south-west Pacific.

In 1837 after completing the publication of that voyage, d’Urville was dispatched again in the Astrolabe, this time in company with another vessel, the Zélée. They were away until 1840 and spent most of that time in Antarctic regions and in Indonesia, but briefly visited many other places including northern Australia.1 The magnificent publication of this voyage came out between 1841 and 1855, consisting of a long account of proceedings with supplementary volumes on special subjects.

1 The most useful maps for this chapter are on p. 91 and pp. 170-6.
D'Urville himself however was killed in a railway accident near Paris in 1842, and was responsible for only a small part of the publication. The sections below, supposedly written by him, were in fact prepared by M. Dumoulin, who continued the narrative of the voyage, working from d'Urville's papers.

Although the two ships stayed only a few days on the northern Australian coast and little of scientific importance was really achieved, the detailed observations of the officers and especially of their very experienced commander, who had visited other parts of the continent on several previous occasions, are particularly useful. The shortness of their stay meant that they made a few minor mistakes of detail, but the general impression is reasonably objective and the criticism very sensible. Their attitude to the Aborigines is remarkably negative, but casual visitors today often come away with the same impressions. It is a pity that the style of writing has no claim whatever to literary merit, and I found it difficult to reproduce exactly the same tone in translation.

In March 1839 d'Urville sailed through Torres Strait and decided to call at the site of the former British outpost in Raffles Bay on the Cobourg Peninsula, abandoned ten years before. Almost immediately the winds changed and after a day of calm, came round to the northwest with strong squalls. As always, once I had come to a decision, nothing further could alter it, so that despite these winds which a few days before would have kept me working in Torres Strait, I maintained a course to the west, tacking against the contrary winds. If for a moment I regretted having abandoned the alternative plan, this did not last long; for on the evening of the fifteenth, the horizon seemed to be on fire and I have never in my life seen so much electricity in the clouds; at one point on the horizon the lightning struck through the clouds in a continuous series of flashes; it was like a great conflagration from which huge rockets were shooting up, hurling their sparks into the sky. The next day, the winds, still from the west, blew furiously and many times compelled us to reef in further the already close-reefed sails. A heavy sea got up and seriously strained our poor corvettes, which if this bad weather had found them among the reefs in the strait, would without doubt have been wrecked. The frequent showers which accompanied the squalls added further to the annoyances on this wretched crossing. However the sea did supply us with great quantities of fish, and not a day passed without some porpoises being harpooned and several sharks being taken on the swivel-hook. We had scarcely had even a couple of hours of reasonable weather since our departure from Torres Strait when, on the twenty third, we came in view of the small New Year Island, a low, wooded piece of land that we soon lost to sight as we tacked out to sea in weather as revolting as usual.

Finally at dawn on the twenty seventh, the lookout signalled land stretching from the southeast to the southwest at a distance of about nine miles. The coast of New Holland presents, on this side, a great sameness; it is low and wooded. Although the horizon is particularly distinct, one observes no prominent mountain or hill in the interior. We noticed the entrance to Port Essington but left it to starboard and set a course for Raffles Bay. Some natives appeared on the western point of the bay, while about twenty Malay boats were seen coming out. At our approach all these praus hoisted the Dutch colours and a red flag, edged with a double border of blue and white. These were the trepang fishers who during the westerly monsoon come to collect a cargo along the Australian coast and on the nearby coral reefs. All these vessels were soon lost to view, and not one remained near us when, after inspecting the shore several times, we took a sounding of four fathoms at the entrance to the bay. It was necessary to anchor there and wait until our boats had picked out a way and sounded the bay. In the evening our corvettes, taking advantage of a squall from the northwest, raised their anchors and let them fall again about 800 metres from a small island. This offered itself as an admirable site for setting up our observatory in perfect safety and for giving our seamen some leave, since they could land there with no danger of coming into conflict with the natives.

Raffles Bay is large and spacious, but the anchorage is remarkably restricted by the shoals which run out, leaving little deep water. On every side the land appears low and uniform, covered with a drooping and dispiriting vegetation. We were scarcely
anchored when our boats set off to inspect the little island beside us. The next day M. Dumoulin erected his tent there to make a series of magnetic observations; M. Gourdin, to whom I had entrusted the task of drawing up a plan of the bay, positioned the poles for this purpose; MM. Demas and Montraval went to regulate the chronometers on the island of the observatory; M. Coupvent was entrusted with the exploration of the channel separating Croker Island from the mainland. On the other hand, the long boats of the two vessels were dispatched under an officer to look for an easy watering place where we could fill up our store of water during our stay in the bay. During the day they explored right around the bottom of the bay without finding a watering place. Certainly they found quite a large river, but it was only possible to cross the bar at high water and also, although they ascended its course for more than a mile, they found only muddy, brackish water.

I knew that the English had given up their attempt to form a settlement on Melville Peninsula to come and try to establish themselves at Raffles Bay, and that they had also left here after two or three years. However from the anchorage, nothing indicated where this settlement might have been and on every side the shore presented a uniform appearance. At ten o'clock I set off with M. Jacquinot in the whaler to explore the bay and look for the site of the English settlement. We had only gone southeast from the anchorage about a mile and a half when we saw a section of wall still standing, which removed our doubts about the place we were looking for. We came ashore without seeing any trace of a landing stage, but the sea was so flat that the boats could come up to the shore with no danger, under enormous trees which lent an air of coolness to the beach and which contrasted with the general appearance of the land. We then made out a space clear of timber and completely covered by long grass. This must have been the position of the fort, but there were no other remains of it, except that we saw a very thick wall in ruins, which I suppose was a powder magazine. We also saw on this likely situation the remains of an old forge and a well of brackish water. As for the gardens, which accord-

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This is not quite correct; see pp. 12–13.

The captain of the Zélée.
ing to their accounts, the English had left, we looked in vain for traces of them, but all had vanished. Without doubt the natives had made frequent visits to the place after the departure of the English and they had materially hastened the destruction of what remained. Several graves that were protected against the attacks of the natives by a simple wooden fence had not been able to escape their investigations. The nails which had served to fasten the coffins had been the aim of the natives' greed and they had not been afraid to disturb the bodies to obtain these objects.

After this visit, the various scientific activities were continued and water supplies were eventually replenished with some difficulty. In the midst of all this activity, a British cutter suddenly appeared. The officer in charge, Lieutenant Stewart, came from a new settlement, called Victoria, in Port Essington, almost just around the corner. The Macassans who had been seen leaving Raffles Bay had told the British of the arrival of two ships, and Captain Bremer, in charge of establishing the settlement, had sent a boat to investigate. There had been some rumours about French designs on the north, but after a slight moment of difficulty, it was abundantly clear to Stewart that the two French ships had come for scientific reasons and in the course of worldwide investigations. An invitation was extended to transfer operations to Port Essington, but d'Urville decided to complete what had been begun in Raffles Bay and come around afterwards for a social visit. A number of Aborigines appeared, but relations were not very satisfactory. Things went better with another group of Macassans who arrived and set up a camp beside the observatory.

Extracts from the records that various officers kept of their particular activities and impressions are printed as notes to the main narrative. One of these is the account by Coupvent of his little surveying voyage down Bowen Strait. At this stage the author was a twenty-four-year-old ensign on the Zélée. He was a careful recorder and produced quite a competent map. If his descriptions of life with the insects and his opinion of the Aborigines seem rather extravagant, they are very similar to those of the other men left in Raffles Bay, and show very clearly the visitors' complete unfamiliarity with the environment. The omissions indicated were made in the original edition to save excessive repetition.

I departed on the morning of the 29th to explore Bowen Strait and I hoped that by sounding the southern part of the channel and putting survey stations at convenient points, I would be able to make some progress in the investigation of a large bay which a section of the English account seemed to indicate: this bay seemed to offer shelter in which a great number of vessels could anchor.

I took as my starting point a small island on the southern side of the entrance to the strait. This little islet is connected to the mainland of New Holland by a line of rocks which extends for half a cable offshore around all this northern point of New Holland. Running along the coast three to five cables out to sea, I took a line of soundings which gave me everywhere four to five fathoms. The coast is low and wooded; a sandy beach a few metres wide borders the shore: this beach rests on a base of very hard rock which extends almost a cable out to sea, where a few points project from the water, particularly at low tide . . .

The oppressive heat which had distressed us during the day made us hope that sundown would bring precious relief, and that the swarms of flies which attacked us without giving a moment's rest, would then disappear for a few hours. As soon as the fires were lit, the whole crew of the boat at last took some rest after their day of toil, hoping for a quiet night; but fate had decided otherwise; we were not at the end of our troubles; the enemy had changed but it was not less formidable: clouds of mosquitoes took our fires as a place to congregate and we were literally covered with them; twenty could be crushed with one blow of the hand, but scarcely had the hand been withdrawn, than they were replaced by others. I tried moving into the middle of the smoke, but without avail; they were set on my body . . . At last I gave myself up to their voracity with no thought to a defence which I knew to be useless.

4 This may be a reference to King's account of his discovery of Mountnorris Bay in 1818, or it may refer to some account written at the Raffles Bay settlement, perhaps T. B. Wilson, Narrative of a Voyage Round the World . . . (London, 1835).
In the middle of the night, however, I noticed that the enemy, getting through my clothes, had attacked those parts of me that were covered; giving up all hope, I stripped completely and plunged into the sea beside the beach: for a few moments I felt an inexpressible well-being as my body which had been like a furnace, began to cool and calm itself; I was happy in the thought that the few hours of darkness still remaining could be spent in peace; but yet again I had failed to take account of my surroundings. Suddenly I felt a smarting pain as a gluey mass attached itself to my body; I tried in vain to tear off the creature which produced this burning sensation; the pain continued; then after having thoroughly cursed New Holland and even those who had discovered it, I did the only gallant thing and lay down on the sand, resigned to providing a feed for all the insects of this frightful land; overcome with weariness, I fell into a deep sleep.

Next day at the crack of dawn, I was up and busy taking the readings that darkness had prevented me from finishing the previous evening.

At the spot where we had passed the night the coast was still wooded, and the trees began at about thirty paces from the edge of the sea. At the moment we were leaving, we saw some natives approaching cautiously; they were the first we had seen on this woebegone coast. I encouraged them to approach, and they came up with a submissive air and presented their weapons, making signs that they were a gift to me. The arms were not very formidable; the natives explained to me how they were used and indeed the weapons clearly demonstrated how inferior these tribes were in civilization compared with the others we had seen throughout Oceania. They consisted merely of long reeds ending in a fire-hardened point: the method of throwing them seemed to lack both power and accuracy.

A flat sheet of wood ending in a small projection like a curved finger, against which the end of the projectile was rested, was used to throw them; holding the spear with the left hand, they impart a violent movement to the system with the right hand; as soon as the grip on the spear is released, it leaves the projection on which it has been fitted and whistles off; but however skilful the natives might become with these weapons, I have grave doubts about their accuracy.

I accepted their present, and gave them in exchange some knives and other trifles which appeared to cause them a lively satisfaction; but I also noted that, savages as they were, they were aware of some of the vices of civilization: the one who appeared the most intelligent of the three turned to me and pronounced the word brandy, indicating with a sign that he wished to drink some. I promised to give him some if, for his part, he showed us where we could obtain some fresh water, for the coxswain had just informed me that of the six casks of water we had brought from the ship, no more than two and a half remained. I immediately issued an order that no more was to be used without my permission: having not yet found a stream and still having two days to spend in the strait, it was necessary to put the crew on an extremely limited ration to avoid the danger of running out of water, a state of affairs which otherwise would certainly have come about under such a parching sun. The savages understood me perfectly and from their signs of joy, I saw that they hoped to drink at my expense. They pointed to the forest where I followed them with two casks; we went into the bush and after going about a hundred yards, found a faint path which soon led us to a meadow clear of trees, in the middle of which two wells had been dug to a depth of four to five feet and held a few inches of thoroughly dirty, muddy water. At our approach a kangaroo, probably led to the same place by the same need, sprang up and in a few bounds vanished into the forest. As it seemed that it would take too long to fill the two casks, I suggested to one of the natives that he come with us in the boat, and when we crossed the channel to take a line of soundings, he could lead us to the place on Croker Island where he had indicated that there was good water. This scheme also fitted in perfectly with my own plans. He accepted without hesitation and positioned himself on the front of the boat. We set off and two hours later I had fixed a survey point on Croker Island. The ground where we landed was stony and dried up; a few clumps of trees scattered here and there indicated the most fertile and
well-watered spots; it was towards one of these oases that our
guide led us. A few paces from the sea amidst magnificent, tall
grass there was a clear and limpid pool with no obvious source
of supply in this hot and arid situation; it was deliciously cool
and as I was stripped for landing in the mud, I plunged in for
a moment while the casks were filling, and the beautiful grass
which grew so strongly in this favoured place that it waved over
our heads, supplied us with shade. The feeling of pleasure that
I experienced was brief, but delightful; it can only be under-
stood by those who like me, have spent entire days under a sun
which from directly overhead, hurls down its rays on one’s
head... Our guide left us there.

The work was taking longer than I had anticipated, so that
the task of sounding eighteen miles of the strait and mapping
forty miles of coastline in three days gave me little time to lose.

We lit our fires on the beach and the seamen, while scouting
around our camp, discovered two canoes quite roughly put
together out of the bark of the trees and capable of carrying
only two people at the most, even in good weather; we left them
alone as being the property of the natives who probably lived
on the island.

Our friends of the morning had not lost sight of us, as a
canoe similar to those we had found on the beach was in the
middle of the strait coming from one of the bays we had visited
the previous evening; it came towards us and a little later we
received our guide and one of his companions who mingled
with us in complete confidence. They brought from their canoes
some mussel shells which served them as food; they offered
some of them to us and the seamen regaled themselves with
them. In order to open them, the natives left them in the fire
for a few moments and then they were soft and tasty... As
for the two natives, the only notable thing about them was their
brutish nature; their interest seemed to be aroused only by their
desire for food; they stared solidly at the seaman’s meal and
when they were given some of it, they gulped them down like
dogs devouring their prey; their meal was only finished when
no more could be obtained; then they lay on their backs and
rubbed their stomachs in front of the fire as we all left them
to get back into the boat. We were soon compelled to anchor
further out to sea as the tide fell and the boat risked being
stranded.

The next day was entirely spent in taking diagonal lines of
soundings and setting up different survey points at various
places; the work was only completed as night fell and this time
we lit our fires on New Holland, two miles from the north point;
I was no more than three or four miles from the ship, to which
I was compelled to return on the fourth day as I had brought
provisions for only three days.

After eight days at Raffles Bay, the two ships moved around
to Port Essington, though they were delayed for a day by the
Zelee running aground. In the afternoon of 6 April they
anchored some miles from Victoria, and d’Urville put off his
visit to the settlement until the following morning.

Wishing to take advantage of the cool of the morning to tour
the new settlement, I set out at six a.m. in the whaler. An hour
later, I came alongside an attractive jetty about six metres long,
built with care and solidity and furnished with ladders to help
getting up. A flag pole stuck up on the end of the jetty and
from it there waved the flag of Great Britain. An English officer,
M. Stewart, whom we already knew, was waiting to receive us,
and he obligingly offered to lead us to the governor’s house.

Victoria Town is situated on a flat piece of land about ten
to twelve metres above sea level. A wide road with a very gentle
slope has been cut in the cliff beside the beach and runs down
to the jetty; we followed it. We soon met Commodore Bremer,8
who, already informed of our arrival, was coming out to receive
us. He is a man about fifty-five years old; his expression is
pleasant and kindly, and his manners civil and engaging. He
received us with perfect cordiality and politeness, and we were
made to feel as if we were meeting old friends. He led us first
to his dwelling; it is placed on the highest point of the plateau
and the view extends over the whole roadstead, in the middle
of which the vessel, the Alligator, lay at anchor. This pleasant

8 Bremer, who had been in charge of establishing the settlement, left shortly
after this visit, handing over control to the permanent commandant,
McArthur.
situation allowed quick and easy communication between the governor and his vessel. Commodore Bremer, without leaving his house, was able to watch the movements in the harbour and at the same time the work going on ashore. The house, completely built of wood, had been made up at Port Jackson, and had every comfort that could be desired. All the rooms were arranged with good sense; drawingroom, bedroom, study, washroom, bathroom, office; nothing was lacking.

We had hardly arrived there when the sun began to rise quickly above the horizon and we hurried to set out on a tour of the settlement. M. Bremer wished to be our guide, and he led us first to the fort placed on the end of a small promontory about thirty metres from his house and about fifteen metres above sea level. It consisted of a single battery placed on the top of the cliff overlooking the roadstead. It was built of strong, wooden planks and a few ship's timbers from the wreck of the Orontes. The battery is in the shape of a semi-octagon and is pierced by four openings, of which three had cannon. This little fortification was completely open on the landward side, but covered the jetty and roadstead that it was meant to defend against foreign invasion.

As for the natives, the English seemed to worry very little about them. In the six months since they had set up their tents on the shore, the inhabitants had shown only the most peaceful intentions. Normally they roamed around the settlement observing the work without taking any part in it. However a few days before our arrival, a quarrel had broken out between these savages and the Malay fishermen who had come to collect the trepang in the bay. The two camps had come to blows and one man had been killed. Since then, the natives, worried by the consequences of the quarrel, had vanished into the interior and the English did not expect to see them again until the end of the trepanging season. Until then, more Malay praus might arrive in the harbour at any time. A camp of Bugis fishermen had been set up at the bottom of Port Essington. Like those who had come to visit us at the anchorage in Raffles Bay, they collected the trepang as quickly as possible in order to continue on their way and get back to Macassar.
The little fort we were inspecting was only a temporary structure, sufficient until the time when the colony had developed further and could build a citadel capable of defending it. In fact however, this construction was not without a certain solidity; though it is unlikely that it would ever be of any great use. One would need a strange situation indeed before any power could think of coming to attack a settlement whose success was still so much in doubt, and long before this tiny colony had grown large enough to inspire any apprehensions, these few cannon could have been replaced by more respectable fortifications.

We left the fort to tour the flat area selected as the site for the town. Raised up above the level of the sea, the air renewed itself easily enough to make one hope that perfect health could be enjoyed there. We visited the hospital where there were only four patients, three had been wounded and the other was homesick. It was a wooden building raised on piles about a metre from the ground and taking the shape of a rectangle. It was capable of holding eight or ten beds. We then visited some of the houses of the soldiers of the permanent garrison. These men, thirty-seven of them, commanded by a captain and a lieutenant, had built their own dwellings. All these houses were tastefully constructed and everything was arranged with the greatest neatness. In front of each house was a small square of fenced and cultivated ground. Four soldiers' wives had followed their husbands into these distant parts: the couples lived in small cottages which they had built. The unmarried soldiers had been mostly paired off to build the dwellings which then provided their shelter. Each of these men kept his weapons beside him; at the least signal he could rush to defend his home against any rash attack on the part of the natives. During the day, the men busied themselves with the general work of the settlement and with the cultivation of their own gardens. The barracks and buildings meant to house the military officers had not yet been completed and the men were hard at work on them.

Like the soldiers, each of the officers had built a small temporary house; certainly one of the most attractive was that of the young M. Bremer, a young man of intelligence and vigour;
finally we went to pay a visit to M. Priest, the lieutenant of the
marines. As we approached, this officer was busy tidying up the
small cottage he had built for himself. M. Priest spends all his
leisure in the study of natural history; in the course of his resi-
dence at Port Essington he has already collected a large number
of specimens which were of great scientific value on account of
their rarity and in some cases were new altogether. He did us
the honours of his house with the utmost courtesy and was
eager to show us his little museum which already possessed a
large number of objects . . .

Leaving M. Priest, we went to pay a visit to the Malay camp;
we arrived just as the fishermen were preparing to weigh anchor
and came back by way of the livestock yards. About twenty
buffaloes, a few goats, a few sheep and several draught horses
were to be seen there. The English had brought with them a
great number of fowls, but after a few days these had all taken
off into the bush where one still came across some of them in
their wild state. The settlers were so afraid of their livestock
escaping in the same fashion, that they never allowed them out
of the yards where they were kept. Every day the animals were
brought the grass necessary to feed them, but they were never
permitted to graze freely.

This part of Australia is the home for a host of snakes; one
comes across great numbers of a type of boa; the English have
often seen them slithering around their houses and M. Priest
had killed an enormous one at the door of his hut a few days
before our arrival. The presence of these dangerous reptiles
which fill the English with fear for the preservation of their
herds, is another reason compelling them to keep a very close
watch, particularly around the livestock paddocks.

We still had to visit the governor’s garden where the colony’s
attempt at agriculture was to be found. M. Armstrong, the
botanist attached to the settlement, did the honours. It is large
and well cultivated; among numerous plantations of the most
useful plants M. Armstrong particularly drew our attention to
several coconut palms to which he attached the greatest value.
It is indeed the staple food tree of the tropics; Australia is com-
pletely without it, whereas the neighbouring lands are so rich
in it; we also noticed banana plants, areca nut trees, etc.: in
short, all the plants which grow so quickly in the torrid zone. I
went away expressing my sincere good wishes for the success of
these useful undertakings on which the fate of the colony so
much depended. But I confess that I did not entirely share the
hopes of M. Armstrong, who seemed to see already in the
appearance of his garden the realization of that wonderful vision
of making fertile this great land which appeared so dry and
lacking in production.

One of the greatest scourges that the English have to contend
with is the continual invasion of their gardens, and even of their
houses, by the ants. In a short space of time, these destructive
mites have turned over the soil and consumed all the seeds
entrusted to it. The largest trees cannot escape their unceasing
activity; they are pierced in a thousand different places, their
growth checked and their maimed trunks often lacking sound-
ness, rendered useless for shipbuilding.

The shores of Port Essington, just like those of Raffles Bay,
offer no easy watering place. Nowhere does one even come across
a stream where the traveller could quench his thirst. This com-
plete absence of water which is so essential for agriculture, par-
ticularly in the torrid zone, will always be a check on extensive
plantations. It is true that there are some marshes near the set-
tlement in which the English hope to grow rice, but it still has
to be discovered whether the water, always a little brackish in
these swamps, will not rather be an obstacle to the cultivation of
this plant. It is only at a considerable depth that one comes
on sweet water. Five wells more than ten metres deep have been
dug by the English; four are completely finished and plastered
inside; they supply plenty of good quality water and provide for
all the needs of the colony. Victoria is already quite able to
supply fresh water to ships that put in there.

We had come to the end of our tour and we had visited all
parts of the settlement. Beside the sea at the bottom of the cliff
we also saw the carpenters’ and blacksmiths’ workshops, which
seemed to be in full operation. Two hundred men directed by a
leader who knew how to win their confidence by being as
efficient an administrator as he was a good officer, had com-
pleted all these undertakings in the space of six months; when
we returned to his house where he led us to sit down, I could
compliment Commodore Bremer without reserve on the happy
outcome of his perseverance and excellent administration. The
remainder of the day passed quickly listening to the lively and
interesting conversation of this excellent officer. I was full of
admiration for this white-haired gentleman who had left his
country and his family to come to this unpromising spot and
undertake a laborious and difficult task. He appeared happy in
the midst of the little colony of which he was both founder and
father; one thought alone seemed to concern him above all
others, to see Victoria prosper, and although we could not
entirely concur in the vision of the future that he held for his
settlement, none of us had the courage to try to destroy the
illusions with which this happy father seemed to surround the
cradle of his child.

At four o'clock the officers of the two corvettes and most of
the English officers repaired to the governor's house where we
sat down to dinner. Nothing was spared to make it a magnifi-
cent spread and the most unrestrained merriness was in evi-
dence. The young M. Bremer showed us the rich collection
of objects of native art which he had already been able to amass.
This young officer who has a wonderful talent for imitation,
showed us how each thing was used. The most deadly weapons
of the Australians are a type of spear made from very light wood
which they throw with the aid of a piece of wood about a metre
long, one end of which is held in the hand while the spear lies
on the other. Young M. Bremer had become very proficient in
the use of this weapon and wished to give us a display of his
skill. Then taking a long flute of the natives, pierced with a hole
into which they blow with the nose, he undertook to perform
all the ludicrous dances of the savages to the accompaniment
of the noise of this instrument. This performance was highly
amusing and all heartily applauded the actor's talent. Eventu-
ally night came on suddenly and it was unhappily necessary
to take our leave of the others, who promised to come and see
us again next morning on board the Astrolabe.

The following morning Captain Bremer and the chief officers
of the settlement paid a visit to the Astrolabe and, after a meal
on board, watched the French ships sail off to the Aru Islands
on the next stage of their voyage.

FURTHER READING. The many volumes of the publication of
this voyage are known collectively as J. Dumont d'Urville,
Voyage au Pôle Sud et dans l'Océanie . . . pendant . . . 1837-
here come from vol. 6 of the 'Histoire du Voyage', or narrative
account of proceedings, which comprises ten volumes of the col-
lected work. The best biography of d'Urville is C. Vergniol,

6 Another officer mentions that the bottles of Bordeaux wine for this dinner
were provided by the French. Archaeologists have recovered what are almost
certainly these very same bottles from the rubbish dump behind Government
House.
5 Surveying in H.M.S. Beagle

The last major sea exploration of the Australian coast was performed by the crew of the surveying ship, the Beagle, between 1837 and 1843. Though many details were left to be more exactly laid down by future investigators, no large or important gaps remained.

Before being commissioned in 1837 to survey the coasts of Australia, the vessel and most of the key officers had completed more than ten years' arduous surveying off South America. The earlier part of this work had been under the overall command of Phillip Parker King and the later stages had served to carry the young botanist, Charles Darwin, on his famous voyage around the world. It is a pleasing irony that Port Darwin was honoured with such a notable name as an obscure act of personal friendship.

In its five and a half years in Australian waters, the Beagle twice circumnavigated the continent, as well as completing several other minor excursions. Its programme marks a stage in the change from running coastal surveys to detailed investigations of particular areas. On the first circumnavigation, the commanding officer was Captain J. C. Wickham (1798–1864) who

1 The most useful maps for this chapter are on p. 111 and pp. 170–1.
and the state of preparation in which we were now in for a longer one, caused us to take our departure from Port Essington in far higher spirits than on the former occasion.

We again shaped our course for Clarence Strait, the western entrance of which was still unexamined ...

Having cleared Clarence Strait, and found it to be perfectly navigable with common precaution, (which in a slight degree enhanced the value of the discovery of the Adelaide), our course was directed for a bay to the southward, which Captain King had not examined. A very refreshing cool north-westerly sea breeze had just succeeded a short calm. Passing four miles from the western extremity of the Vernon Isles, we had irregular soundings of ten and seven fathoms. The ripplings and discoloured water are a warning that they should be approached with caution on this side.

The mouth of a considerable inlet came in sight at the head of a bay as we advanced towards it, steering S. by E. This opening began to appear of consequence as we drew near, although the singularly gradual decrease in the soundings, on a sandy bottom materially diminished the probability of its being the mouth of a river. Still, when we anchored as near as we could approach, there remained a hope of its being so.

September 8.—Early in the morning Mr. Forsyth and myself started to explore the opening. We soon discovered that it was nothing more than a shallow creek at low water. The tide here rising twenty feet, gave it the important appearance it had yesterday evening. A tall clump of naked trees was conspicuous at the east entrance point, towering above the insipid mangrove shore. We gave it the name of Hope Inlet, to commemorate the feelings it excited on its first discovery. From the south point of Clarence Strait it is distant eleven miles, and the bay in which it lies, from the shallow water at the head of it, was called Shoal Bay.

The boat being provisioned for four days, we pushed on to explore another opening above fifteen miles to the westward. The sea breeze setting in early, we did not reach it till after dark, when we landed for observations at a clifftly projection near the eastern entrance point: this we found to be composed of a kind of pipe clay, mixed with calcareous matter. We had some difficulty in landing, and then in scrambling up the cliffs by the light of a lantern. If any of the watchful natives happened at the time to be on the look out, they must have stood fixed with astonishment at beholding such strange persons, who at such a time of night, with no ostensible object were visiting their shores.

September 9.—Before the veil of darkness was quite removed, we could faintly distinguish the mouth of the opening; and the sight at daylight was most cheering. A wide bay appearing between two white clifftly heads, and stretching away within to a great distance, presented itself to our view. Far to the southward, between the heads, rose a small table-topped hill. As we pulled in towards the eastern entrance point, the river-like appearance began to wear off, more land making its appearance towards the head of the opening. On reaching this point Mr. Forsyth and myself climbed up the cliff, whilst the breakfast was cooking. From this summit we had a good view of the bay, and were delighted to find large openings in the south-east and south-west corners of it. The table hill before mentioned, stood on the point between them. To see the eastern part of it, however, it was necessary to cross [10] the opposite point, where some talc slate, pieces of which measured four inches in length, was found imbedded in quartz. The point was called in consequence, Talc Head. The other rocks near it were of a fine-grained sandstone:—a new feature in the geology of this part of the continent, which afforded us an appropriate opportunity of convincing an old shipmate and friend, that he still lived in our memory; and we accordingly named this sheet of water Port Darwin. A few small bamboos grew on this head; the other trees were chiefly white gums. I climbed to the top of one of them, and obtained thence a view of another opening in the eastern part of the harbour. It now being low water, an extensive shoal was discovered, reaching from abreast of Talc Head to the point separating the S. E. and S. W. openings, an extent of nearly five miles. This somewhat diminished the value of our discovery, as it limited the capabilities of the bay as a harbour.

We now proceeded to explore the north-eastern and largest
opening, distant six miles from our station. A large islet and a reef left the entrance only a mile wide. Expanding again, it formed two arms, one running south, the other E.S.E., between small groups of singular isolated haycock-shaped hills, about 250 feet high. Following the latter, being the largest, we found that it soon curved round, taking a southerly direction. A bank free from mangroves occurring in this bend, we availed ourselves of it, as the day was closing in, to secure some early stars for latitude and longitude. The intense pleasure afforded by traversing water that had never before been divided by any keel, in some measure compensated us for the annoyance from the mosquitoes and sand-flies, that took the opportunity of assailing us while in the defenceless state of quiet necessary in making observations. Pushing out into the middle of the stream, and each wielding a beater, our tiny enemies were soon shaken off, and borne back to the shore by a refreshing N.W. breeze.

We found it necessary to keep a sharp look out here for the alligators, as they swarmed in dangerous numbers.

The scarcity of fish, and the shallowness of the water did not hold out much hope that the arm we were tracing would prove of great extent; still many speculations were hazarded on the termination of it. The temperature in the night was down to 78°, and the dew sufficiently heavy to wet the boat's awning through. Anxious to know how far this piece of water was to carry us into the untrodden wilds of Australia, we moved off with the first streak of dawn. Ten miles in a S. by E. direction brought us to where the width and depth was not sufficient to induce us to proceed further. Besides, as we were then only fifteen miles from a bend of the upper part of the Adelaide, which must receive the drainage of all that part of the country, it seemed improbable that any other large river existed in the neighbourhood. Six miles from our furthest, which was about thirty miles from the entrance, we passed a small island. The banks on either side of the inlet were, as usual, a thick grove of mangroves, except in one spot, a mile lower down, where we landed on our return for observations. This we found to be a low clifly projection of slate formation, whilst scattered over the face of the few miles of country, which we were able to explore, were small bits of quartz; large blocks also of which protruded occasionally through a light kind of mould.

The country was a most thirsty looking level, the low brush-wood on which cracked and snapped as we walked through it, with a brittle dryness that testified how perfectly parched up was everything. A single spark would instantly have wrapped the whole face of the country in one sheet of fire. Slight blasts of heated withering air, as if from an oven, would occasionally strike the face as we walked along; sometimes they were loaded with those peculiar and most agreeable odours that arise from different kinds of gums. Still the white eucalyptus and the palm, wore in comparison with the other vegetation, an extraordinary green appearance, derived probably from the nightly copious falls of dew, which is the only moisture this part of the continent receives during the present season. The birds we observed were common to other parts of the continent, being a few screaming cockatoos, parrots, and quails, and near the water a small white egret. There was nothing of interest to recall our memories to this first visit to a new part of Australia, save a very large ant's nest, measuring twenty feet in height. This object is always the first that presents itself whenever my thoughts wander to that locality.

As the boat was not provisioned for the time it would take to explore all the openings we had discovered, and as the capabilities of Port Darwin were sufficiently great to require the presence of the ship, I determined on returning immediately to Shoal Bay.

The Beagle then moved into an anchorage from which Port Darwin and the neighbouring inlets were surveyed in more detail. Early in October it moved on to investigate other inadequacies in King's survey.

Another opening of far greater magnitude, and promising in all probability to lead far into the interior now lay before us, at a distance of 140 miles further on the coast to the south-west. By the evening we had lost sight of the land near Port Patterson, and were steering towards the opening that promised so much. A gap in the coast line, 28 miles wide, with a strong tide
passing to and fro, failed not to give birth to endless speculation as we approached the spot. I had always looked forward to the examination of this unexplored portion of the North-west coast, as one of the most interesting parts of our survey.

In consequence of light north-west and westerly winds, our approach was tantalizingly slow, and we did not enter the opening until the evening of the 9th, when we passed four miles from the north point, called by Captain King, Point Pearce. His visit to this part of the coast was in September 1819, and under very adverse circumstances; his vessel had but one anchor left, and the strong easterly winds then prevailing, with thick hazy weather, rendered his progress into the opening both difficult and hazardous: after a trial of two days, and having several narrow escapes from getting on shore, he bore away to examine the coast to the south-west, where he was repaid for his disappointment by the discovery of Cambridge Gulf.

Thus did the exploration of this wide and interesting opening fall to our good fortune; as we proceeded inwards, several beautiful medusæ passed the ship, and our hopes were roused to the highest pitch by the muddy appearance of the water. At sunset the anchor was dropped in five fathoms; Point Pearce, a clifly level projection, bearing N.W. by N. five miles, and about one and a half from a low rocky point. A bluff projection, bearing S. 65° E. seven miles, bounded our view to the southward, and a range of sugar-loafed hills, the highest being 350 feet, rose about eight miles in the rear of it.

October 10.—We were naturally very anxious to proceed, and as soon as there was sufficient light to read the division of the bearing compass, the ship was gently stealing onward in the direction of the bluff, and furthest land seen last evening to the S.E. We had not proceeded far before we discovered a distant level range, beginning to shew itself to the right of this projection, adding still more to the zest with which we pursued our search. The tide, however, making against us, and the wind gradually failing, we were compelled to anchor abreast, and distant three quarters of a mile from the north-west point of a bay two miles wide.

The bluff headland, before alluded to, forms the south-east point of this bay, and to which Captain Wickham and myself hastened instantly the ship was secured.

We found a few fossils on the side of this ridge, as we ascended, which at once induced us to name it, Fossil Head. Our view was decisive of the fact, that all further progress eastward was at an end, but to the south sand-banks and patches of dark coloured water bounding our view left still great hope. The high land terminated abruptly to the southward, whilst looking to the northward it appeared to subside in an E.N.E. direction. The base of this range was fronted by a low piece of land, stretching out on its north-west side, and forming a point
which bore S. 35° E. five miles from Fossil Head. But the most remarkable feature in the scene was an isolated flat-topped hill, having all the appearance of a bastion or fortress, rising abruptly from the surrounding plain, to an elevation of 650 feet, the upper part being a line of cliffs, greatly adds to the appearance it presents, that of a complete fortification. It bore N. 85° E., fourteen miles from Fossil Head; and the country between was very low, and intersected by a creek about midway. This remarkable piece of land is called in the chart Table Hill; an inlet trended in towards the foot of it.

We noticed several old traces of natives; the country in the neighbourhood was of a stony desolate character, yet appeared to afford nourishment for a small growth of white gums. After examining two mangrove creeks of no importance, in the north-west corner of the bay fronting the ship, we returned.

Our hopes of finding a river of some magnitude were not in the least destroyed from what we had seen from Fossil Head, and the southerly direction of the flood stream fostered our belief. Independent of these signs, we felt that we were again entering upon a new part of the continent, and the thoughts thus engendered acted like a powerful stimulant, so that we were not easily cast down.

The tide serving badly, and the day being far advanced, it was decided that we should not move the ship till next morning, when after getting abreast of Fossil Head, we steered from it on the bearing of the deep water channel we had seen yesterday. We proceeded cautiously, feeling our way with the boats a-head. After passing some distance along the eastern side of a long dry sand-bank, we were obliged again to anchor, both boats signalizing a depth of only two fathoms.

Table Hill bore N. 46° E., fifteen miles, and Fossil Head N. 15° W. It was now necessary to find a channel for the ship, which I succeeded in doing the next day, and on that following, the 12th, Captain Wickham, Mr. Bynoe, and myself, went to visit the high table range, while Messrs. Fitzmaurice and Keys were to examine the large inlet running in towards the foot of Table Hill.

By following a creek we almost reached the foot of the high level range in the boat; a line of cliffs stretched along near the summit, beneath which it sloped down rapidly to the plain. We ascended by a slight valley, communicating with a break in the cliffs, but found on reaching the top that instead of being on a level, we were standing amidst a series of undulations or low hills, forming the crest of a platform, but so blended together, and of so nearly the same height as to appear in the distance one continuous plain. It was, therefore, with some difficulty that we could find the highest part, each, until we reached it, appearing to be so. Ultimately I was compelled to climb a tree, in order to obtain the necessary angles.

The view was very extensive, a wide inlet separating the range we stood on from other high land trending southward, with great irregularity, from the base of which stretched out a long plain, similar to that which lay at our feet. The latter was intersected by creeks that could be traced by the mangrove fringe which marked their course. Many parts of the low lands were covered with a salt incrustation, and here and there were scattered trees deposited by the overflows of the water, that still appeared to flow from the southward. The sight of this drift wood and many minor appearances, was indeed most welcome, and added full confirmation to the opinion that we were now within the mouth of a large river.

To the S.W. and distant thirteen miles, were two large islands, which from the remarkable shape of two patches of trees on their northern ends, we named Quoin and Clump Islands. A small patch of low land was discovered beyond them, between which and Quoin Island appeared the proper channel. That, however, lying between the islands seemed sufficiently large for the ship. Being moreover within our immediate reach, it was determined that we should proceed by it.

A remarkable change here occurred in the character of the country, the hills being now composed of a white, and very compact kind of sandstone. In the cliffs the strata were very marked, dipping to the S.E. at an angle of about thirty degrees with the horizon. The base and sides of these heights were thickly strewn with small fragments of sandstone. The appearance presented was precisely similar to that of a new road,
after it had undergone the improving process invented by Mr. M'Adam, in whose honour, therefore, we named this M'Adam Range.

A large light coloured kangaroo was the only living thing we saw. A short green looking grass was thinly sprinkled over the country, imparting a freshness to it, which, in contrast with the aridity that had of late surrounded us, was quite delightful.

Crossing the flat on returning to the boat, I was much struck by one particular spot on the border of a creek. I came suddenly upon a number of flat stones placed in rows, one upon the other. Though altogether covering about ten yards of ground, there was no appearance of any shape in their arrangement. I am still puzzled, to determine whether they were merely the results of childish amusement, or had performed their part in some magical incantation or religious ceremony of the natives. I am the more inclined to think it was the latter, as there was a native grave near, covered with the same kind of flat stones, to the height of about three feet. We had not before observed any thing like it, neither did we afterwards. Several flights of large curlews were seen passing over the boat, and resting on the flats in its neighbourhood. Whilst endeavouring to procure some of them, I was placed in a sufficiently awkward position, running the risk of becoming myself a fresh meal instead of procuring one. I had stripped to swim across a creek, and with gun in hand was stealthily crawling to the outer edge of the flat where my intended victims were, when an alligator rose close by, bringing his unpleasant countenance much nearer than was agreeable. My gun was charged with shot, and the primitive state of nudity to which I had just reduced myself, precluded the possibility of my having a second load. To fire therefore was useless, and to retreat difficult, for I had wandered from the boat some distance across the bank, on which the water was fast rising. Thought, there was no time for, and before my companions could have reached me, the tide would have flooded the place sufficiently to enable the alligator to attack me at a disadvantage. My only chance of escaping the monster was to hasten back to the boat, and to cross the last creek before the alligator, who appeared fully aware of my intentions. It was now, therefore, a mere matter of speed between us, and the race began. I started off with the utmost rapidity, the alligator keeping pace with me in the water. After a sharp and anxious race, I reached the last creek, which was now much swollen; while the difficulty of crossing was aggravated by my desire to save my gun. Plunging in I reached the opposite shore just in time to see the huge jaws of the alligator extended close above the spot where I had quitted the water. My deliverance was providential, and I could not refrain from shuddering as I sat gaining breath upon the bank after my escape, and watching the disappointed alligator lurking about as if still in hopes of making his supper upon me. Waiting till the monster came close, I took a deliberate aim at his eye, which had only the effect of frightening him a little.

The wind, which was light, blew from the N.E. from sunset last evening until noon, being the first land wind we had yet experienced. The temperature remained nearly the same as at Port Patterson, the maximum being here 86, and the minimum 81.

October 13.—We got on board about noon, and the next day Mr. Fitzmaurice returned. He had found Table Hill to be a perfect natural fortress, accessible only at the S.E. corner by a slight break in the line of cliffs surrounding it; the large inlet terminated in a creek passing close at the southern foot of the hill, where it branched off in an east and north-east direction, and in the course of three miles, became lost at the western extremity of some low thickly wooded plains, which extended eastward as far as the eye could reach. To the south lay M'Adam Range, which declining to the eastward, was at length blended with the plain, the eye finding some difficulty in determining where the hills ended and the plain commenced.

All the soundings and other data for the chart, in the immediate neighbourhood, were collected by the 16th, when the ship was got under weigh, as soon as the tide, which here rose twenty feet, was high enough. After passing through a channel, six and seven fathoms deep, which the dry extreme of the sand-bank fronting the flat, extending off M'Adam Range, bearing S.S.E. led through, we hauled over to the westward for a swash way in the sands, extending off the north-west end of Clump
Island. In crossing the inlet, running under the south end of M’Adam Range, we found as much as ten fathoms, a depth that led to the hope of its being of great importance, perhaps indeed the mouth of a river. Passing between Clump and Quoin Islands, we anchored midway between the latter and Drift-wood Island, a proceeding which the approach of high water rendered necessary, as from the great fall of the tide we were obliged at that time to have at least seven fathoms. We were now surrounded on all sides by flat shores, and from the mast head, I could trace the low land forming the western side of the principal channel. The high land south of M’Adam Range, was found to terminate in a remarkable peak, which in the certainty of our search proving successful, we named River Peak. It was almost blended in one with a range beyond, yet the fact of the distance which really existed between them, did not escape our anxious observation; and it was indeed in the different shade of these two ranges, one being less distinct than the other, that we found ample confirmation of our hopes.

It was soon arranged that Captain Wickham and myself, should at once dispell all doubts, and that next morning, Messrs. Fitzmaurice and Keys should start to explore the river-like opening, under the south end of M’Adam Range, to which we have above alluded.

Our preparations were rapidly made, a few days provisions were stowed away in the boat, and as the western sky glowed red in the expiring light of day, the gig was running before a north-west breeze, for the chasm in the distant high land, bearing S. 20° E., twelve miles from the ship. As we advanced, the separations in the range became more marked and distinct, as long as the light served us, but presently darkness wrapped all in impenetrable mystery. Still we ran on keeping close to the eastern low land, and just as we found that the course we held no longer appeared to follow the direction of the channel, our burst the moon above the hills in all its glory, shedding a silvery stream of light upon the water, and revealing to our anxious eyes the long looked for river, rippling and swelling, as it forced its way between high rocky ranges. Under any circumstances the discovery would have been delightful, but the time, the previous darkness, the moon rising and spreading the whole before us like a panorama, made the scene so unusually exciting, that I forbear any attempt to describe the mingled emotions of that moment of triumph. As we ran in between the frowning heights, the lead gave a depth of eighteen and twenty fathoms, the velocity of the stream at the same time clearly shewing how large a body of water was pouring through. ‘This is indeed a noble river!’ burst from several lips at the same moment; ‘and worthy,’ continued I, ‘of being honoured with the name of her most gracious majesty the Queen’—which Captain Wickham fully concurred in, by at once bestowing upon it the name of Victoria River.

A glance at the map will shew that we have not overrated its importance, or acted hastily in calling it the Victoria; and it must be admitted that as the Murray is to South-eastern Australia, so in value and importance is the great river Victoria, to the opposite side of the continent.

Pursuing our course between the rocky heights, in a south-east direction, the outline of a high peaked hill, standing between two ranges, became visible, appearing, even at that time, so remarkable as to be named Endeavour Hill. The wind failing, we pushed into a small opening out of the stream, on the right hand, to pass the night.

Anxious to trace further the course of the river, Captain Wickham and myself ascended the top of a neighbouring hill before early dawn. The view which presented itself when the day broke, was fraught with every charm of novelty. A rapid stream passing between barren rocky heights, here stealing along in calm silence, there eddying and boiling as it swept past, lay at our feet. By a sudden bend two miles east of where we stood, it was hid from our view; the ranges overlapping, however, still pointed out the further course of the Victoria. The boat lay in the mouth of a creek, which communicating with another four miles further down, formed an island on the eastern side of the river, which we called Entrance Isle.

The formation of this part was a sandstone of a reddish hue, and in a state of decomposition. A wiry grass and the never-failing eucalyptus were sparingly scattered over the face of the
country, which round the entrance had a most unpromising and dreary appearance, shewing at a glance its utterly sterile character.

Taking a hasty breakfast, we pulled up the river; the tortuous nature of the first reaches, changing their directions suddenly from north to east-south-east with a depth of seventeen and twenty fathoms, produces violent eddies and whirlpools. Passing these, a splendid sheet of water lay before us, trending south-east by south, as far as the eye could reach from the boat, and more than a mile wide. In the first part of this we had a few shoal casts of the lead, but afterwards the depth was eight and ten fathoms, it being near low water. In order to catch a glance at what was beyond, and to spell the oars, we landed at a point on the east side, from which Endeavour Hill bore W. ½ S. three miles. Here the river, by taking a slight turn more to the southward, was again lost sight of. We were sorry to perceive that it was much occupied by shoals, that shewed themselves at this time of tide. The first began five miles beyond our station, commencing from abreast of a rugged ridge, on the west bank. The singular manner in which the blocks of sandstone were strewn over this height, caused it to bear a strong resemblance to old ruins. The appearance of the country had not as yet improved, though the sandstone had lost that reddish hue we had noticed in the morning, while preserving the very marked dip to the south-east.

Continuing we found the change in the direction of the river very slight, and at the end of sixteen miles it suddenly turned off to the eastward, which I was sorry to find, as its diverging from its original south-easterly direction, appeared likely to disappoint our expectation that the Victoria would prove a high road to the interior of the continent. The width had hitherto been almost two miles, but there was not sufficient depth to give us any hope of bringing the ship up thus far.

The country now began to assume a more cheerful aspect. The hills exhibited no longer the same rugged outline, and were better clothed with vegetation. From the top of one of a conical group, forming the north point of the river where it changes to the eastward, I could trace its direction but little further.

On the opposite side the hills receded, forming an amphitheatre round a level plain, through which ran a creek. On its banks, for the first time, we saw fires of the natives. Here, also for the first time, we noticed the gouty-stem trees; whilst the slope of the hill we ascended was covered with a tolerable sprinkling of grass. Kangaroos, likewise, were observed on every side springing along the turf; and a few great alligators passed up the stream, after reconnoitring our boat at the risk of a shot or two.

We were now nearly thirty miles from the ship; and a few stations were still necessary to be made to complete the survey so far. Our proceeding farther was therefore useless, especially as an exploring expedition must pass up the river; and retracing our steps we reached the ship near midnight on the 20th. The intelligence of the success of our cruise was received on board with an enthusiasm which explorers only can appreciate. Mr. Fitzmaurice had not returned, which favoured my surmises that he would find a river.

October 21.—Mr. Forsyth having collected all the necessary material for the survey near the ship, we shifted our berth this afternoon into deeper water, between the south end of Quoin Island and another small islet to the south-west, which from our operations on its south-eastern corner we called Observation Island. The weather was very remarkable in the evening—dark patches of clouds appearing in the western horizon, from which vivid lightnings flashed, and loud peals of thunder roared. The frightened scream of the sea-birds evinced how seldom nature puts on such an aspect in this place.

Before proceeding further with the ship, it was necessary to feel our way with the boats. Whilst this was going on, Captain Wickham determined on pushing up the river in the gig to ascertain if it was fresh sufficiently near to water the ship from, when she had been taken as far up the Victoria as it was possible. He left next morning on this more than interesting trip. The same afternoon Mr. Fitzmaurice returned, having, as we had suspected, discovered a river that carried his boat thirty miles in an east direction from the south end of M'Adam Range. Towards the upper part it was scarcely half a mile wide; but
for an Australian stream was remarkably free from bends, pursuing a straight course between rocky heights, with a depth varying from two to seven fathoms. Many shoals occurred towards the entrance, where in some places it was more than two miles wide. This river was named Fitzmaurice River after its discoverer; and the mouth or inlet of it, after his companion, Keys Inlet.

In sounding the channel, I found that when the hill Captain Wickham and myself were first on, behind Entrance Isle, was in a line with the north end of the high land at the south side of the entrance, it formed a good lead up. In consequence we named it Leading Hill, and the end of the range alluded to, Indian Hill, from our constantly seeing smoke near it. A flat of three or four fathoms at low water extended across the channel, with River Peak bearing between N. 35° E. and N. 64° E. I visited Indian Hill, but failed to meet with any of the natives, although I saw their fires not far off in the hills to the southwest. It is a ridge covered with blocks of sandstone, with a few trees here and there. From its summit I had an extensive view of the low land stretching away to the northward, and forming the western side of the channel. It appeared so cut up with creeks as to form a mass of islands and mud flats, which appeared from the quantity of drift timber, to be frequently overflowed, and partially so apparently at high spring tides. The farthest high land I saw bore west about twelve miles.

I left here a paper in a bottle, giving an account of our proceedings, and should have been sorry to think, as Wallis did when he left a similar document on a mountain in the Strait of Magellan, that I was leaving a memorial that would remain untouched as long as the world lasts. No, I would fain hope that ere the sand of my life-glass has run out, other feet than mine will have trod this distant shore; that colonization will, ere many years have past, have extended itself in this quarter; that cities and hamlets will have risen on the shore of the new-found river, that commerce will have directed her track thither, and that smoke may rise from Christian hearths where now alone the prowling heathen lights his fire. There is an inevitable tendency in man to create; and there is nothing which he con-

templates with so much complacency as the work of his own hands. To civilize the world, to subdue the wilderness, is the proudest achievement to which he can look forward; and to share in this great work by opening new fields of enterprise, and leading, as it were, the van of civilization, fills the heart with inexpressible delight. It is natural, therefore, as I traced the record of our visit and deposited it on Indian Hill, that I should look forward in a mood very far different from that of Wallis, to the speedy fruition of my hopes.

October 27—The winds for the last few days had been from W.N.W. to N.W., light after midnight to near noon, then moderate and sometimes fresh. The tides, as they approached the springs, increased their velocity, occasionally coming down in bores at the rate of four and five knots. Captain Wickham returned this morning, having discovered the river to be fresh about seventy miles above the ship. For some distance it had not decreased in size, which was very delightful news. I had been several times on the point of inquiring on this subject; but fearing an unfavourable reply, hesitated. Now my hopes were at their highest pitch, and I was quite impatient to start on an expedition up the river.

On the 29th the ship was taken under my guidance up the river, as far as the commencement of the long southerly reach. As the shoals in that part had not been sufficiently examined, we proceeded to do so in the evening, and two channels were discovered; one between a bank, dry at low water, and a covered patch of one and a half and two fathoms, and the other between the covered bank and the east shore; the latter, although the narrower, I found to be the better. The tides set direct through it, and to keep close to the bank is a simple and sure guide. The least water is four fathoms, half a fathom more than was found in the other, the direction of which crossed the set of the tide when the bank on the west side became covered. Next morning we moved the ship three miles further up into a bight on the east side from which Endeavour Hill bore W. 13° S. two miles and a half.

The Beagle was now nearly fifty miles up the Victoria, and might have gone seven miles further, but a valley holding out
a hope that we might find water by digging, and the distance at which the river was fresh being too great for us to think of completing our stock from it, we anchored abreast of it. Whilst on shore getting observations for the errors of the chronometers in the afternoon, I could not avoid soliloquising as I gazed on the ship lying surrounded by lofty rocky heights, that towered above her masts till they appeared mere sticks. The contrast forcibly presented itself between the comparative insignificance to which she was reduced by the elevation of the hills around, and the majestic appearance she was accustomed to bear when among the low lands of which we had seen so much. The sight reminded me of early years of wandering within the narrow arms of the sea in Tierra del Fuego, save and except there were not the forests of ages to hide the nakedness of the land, which even there was clothed to the water’s edge.

My companion reporting the instruments in the boat broke the reverie I was indulging in; and on returning on board I found every one busily preparing for the expedition up the river.

Captain Wickham left on the following morning with a watering party, and the next day Stokes followed him in an attempt to follow up the river as far as possible in boats. Together they reached the limit of boat transport about seventy-five miles further on, from where Stokes and a small party proceeded on foot for another three days. In general, Stokes was greatly impressed by the potential of the Victoria, though from his account it is rather difficult to see why, and certainly later visitors roundly condemned his judgment.

The return trip down the river was accomplished uneventfully, and it was only when the Beagle was just about to depart that Stokes had the misfortune to be speared by the Aborigines while taking some readings on shore. The event was commemorated by the name Treachery Bay, and Stokes’s recovery by Providence Hill. After a few days’ delay the Beagle then sailed south to Perth.

FURTHER READING. The best account of the activities of H.M.S. Beagle is in G. C. Ingleton, Charting a Continent (Sydney, 1944). The Libraries Board of South Australia is preparing a facsimile edition of Stokes’s Discoveries in Australia.

6 The Voyage of the Forlorn Hope

J. P. STOW

Nothing illustrates quite so well the atmosphere of confusion, quarrelling and disorganization that surrounded the disastrous attempt by South Australia to found a settlement at Escape Cliffs as the circumstances leading up to the remarkable voyage of the Forlorn Hope.1 The first party under B. T. Finniss arrived in June 1864 and almost immediately got into such difficulties that a request for help was sent back to Adelaide. In December R. H. Edmunds arrived with a fine, new steamer, the South Australian, in charge of the second party which doubled the population of the settlement to just over eighty, nearly all government officials or employees. One of the three private individuals who arrived in the second party was Jefferson Pickman Stow (1830–1908), a member of a prominent and influential Adelaide family, who had come as the agent for a number of land order holders and as correspondent for several newspapers.

The first ship to arrive after the Wet in 1865 was H.M.S. Beatrice, a surveying vessel which was sent off to look for a better site than Escape Cliffs, thus further demoralizing those meant to be working to establish that settlement. A fortnight later, on 20 April, a passenger and cargo vessel, the Bengal,  

1 The most useful maps for this chapter are on pp. 10–11 and pp. 170–1.
arrived and nearly half the population took this opportunity to depart. About thirty left as passengers for Singapore, taking also Stow's newspaper reports. However, as he explains, Stow and six companions decided to set out by boat for the Western Australian settlements. Edmunds asserts that they were so inexperienced that he was responsible for providing sextants, teaching someone how to determine latitude and even suggesting that tracings of charts might be of some help. This seems a little hard to believe, but it certainly was a remarkably foolhardy adventure. The name chosen for the boat indicates a good deal of grim jesting about the chances of success, but the scoffers were probably as ignorant of what really lay ahead as the voyagers themselves.

BOAT VOYAGE FROM ADAM BAY TO CHAMPION BAY.
ALONG THE NORTH AND WEST COASTS OF AUSTRALIA

My last letter closed on the 5th May, and I fear its contents were anything but cheering to those interested in the Northern Territory. I am able now to give you news of the party, of whom I was one, that sailed from Adam Bay in the Forlorn Hope. On the departure of the Bengal, about fifty persons were left in the settlement. Of these, about forty were intending to leave by the first opportunity. It was well known that the time elapsing before the next advices from Adelaide would be wasted. The universal depression occasioned by the disappointed hopes and dreary prospects of the settlers and members of the expedition was relieved by the excitement of the two days on which the Forlorn Hope left the Cliffs and the Narrows. The main object of most of the members of the crew of this little craft was, of course, to return to Adelaide; but several, including myself, wished to visit different parts of the coast of our own territory. After this was effected, we were to proceed to Camden Harbour, and if a vessel was there bound for Swan River, Melbourne, or Adelaide, to sail by her; if not, to continue coasting till we fell in with a vessel, or reached Fremantle, when the voyage of our boat was to end. We thought we should meet with numerous places of shelter about the coast and among the islands, but found, to our cost, how little we knew of the character of both.

A few, and among them sailors, prognosticated a fatal issue to our voyage; but the unutterable disgust with which we contemplated the prospect of months of forced inactivity, determined us to venture. We purchased the boat on the 4th from the Bengal, and brought her on shore. She was 23½ feet in length, 6 feet across the beam, and 2 feet deep. She had two masts and sprit sails, to which we added a jib. On the 5th we had wash boards added to her, and a little decking and tarpaulin on the bows and stern, thus guarding as far as possible against shipping water, and at the same time making lockers for our provisions. On the 6th, after the departure of the Bengal, we got our luggage and provisions on board. We had 200 lbs. of bread and biscuit, some cheese, 20 6-lb. tins of beef, a few medical comforts, some cakes, about 70 gallons of water, and some firewood. We carried as little luggage as possible, and a chest with photographic apparatus belonging to Messrs. Hamilton and Hake.

In the course of the afternoon all preparations were completed, and the people of Adam Bay collected to bid us farewell. At 10 a.m. on the 7th we went on board, and I may as well give here the passenger list:—J. P. Stow, Arthur Hamilton, and Wm. McMinn (surveyors), John White and James Davis (seamen), and Chas. Hake and Francis Edwards, men of the survey parties. Messrs. Hamilton and McMinn were to determine our course, and John White, an experienced boatman, who had been in the pilot service in Victoria, and was well-known at Port Adelaide, was to have the management of the boat. Francis Davis was also an able seaman. We had maps from Melbourne, tracings from the charts of the captain of the Bengal, two sextants, and several pocket compasses. We took leave of our fellow-victims on the banks of the Adelaide, and on pushing off were encouraged on our way by great and continued cheering, while parting volleys were fired from carbines and revolvers. Some of the camp, including G. McMinn, C. Hulls, W. Stow, and others, accompanied us for some distance in a dingy. They hoisted a blanket for a sail, but not being able to steer very close to the wind, we took them in tow, and sailed down the river against the tide, through the mouth, and for some miles towards Point Charles,

* This man's name was probably James Davis, as above.
across the bay, leaving the Beatrice and the Cliffs far to the right. Soon we approached the open sea, and it was necessary for the dingy to return. What a parting that was on the waters of Adam Bay between friends and brothers!—some embarked on an adventure full of novelty, and not destitute of peril; others doomed to months of weariness and monotony.

We passed the Vernon Islands early in the afternoon, taking the inner channel, and going over shoals. Good winds most of the day. After sundown weather looked threatening, and we had a stiff breeze; but about 7 p.m. the weather cleared, and the wind abated. We had pleasant breezes most of the night. How beautiful when the moon rose, and spread its silvery light upon the calm water. We became sentimental. The everlasting ocean could never really become monotonous; one could never tire of gazing upon its broad expanse and watching it in its various moods. Waking and sleeping, in dreams and reverie, the first night passed away.

At daylight on the 8th we saw the mainland, and during the day sailed over a reef marked on our chart, and passed the entrance of Port Paterson, coast low and dreary. Native fires all along the coast. At about 8 p.m. were stopped by reefs, and turned to the west, when we were again stopped and anchored. At 1 a.m. on the 9th, at low water, found ourselves surrounded by reefs, and were thankful for our escape from shipwreck. At high-water the reefs were all out of sight, and we sailed pleasantly enough for three or four hours, when the wind shifted, and we went to seaward till the sea became so rough that we tacked to the east and ran in shore, anchoring about 11 a.m., two miles from a sandy beach, free from breakers. Heavy rain and wind. Remained at anchor till the morning of the 10th. We had a rough sea and high wind with a good deal of rain. We were saturated with rain and spray, and some of our bread was injured. An uncomfortable night, but all slept a good deal—some soundly. At 7.30 steered for the mainland. At 3.30 Cape Blaze bore S.W., distant about 8 miles, and a fine range of hills—I should say 40 miles distant S.E. ¼ E. Sailing very near the coast. Plenty of fish, and among them kangaroo fish, so called from the fact that they leap along the surface of the water on their tails. Heard snipe and plover on shore; sandflies visited us from the land. At 5 p.m. sighted the peak of Peron Island. The sea became rough, and not knowing the passage into Anson Bay, where we intended to call, we made for the shore, and anchored at 10 p.m., about 2 miles from the land, in 6 fathoms water. During the night the wind was cold and violent, with a rough sea. Our anchor being light, we drifted 8 or 10 miles to the north-west. At sunrise, on the 11th, we were out of sight of Peron Island, but we soon sighted it. The peak of the island first becomes visible, appearing like a solitary rock, but soon the rest of the island shows itself, and afterwards the smaller island. Winds light and variable, sometimes dying away altogether. There being a dead calm, anchored about 8 p.m. Numerous fires on the island and along the coast. Heard natives cooeying and wild dogs howling.

On the 16th, shortly after daylight, saw the Barthelemy Hills. Calms and light winds all day till about 4.30 p.m. Steered for what looked like an opening in the bight, between Cape Dombey and Cape Hay. On approaching, found this appearance of an opening which we hoped would prove to be a river, was occasioned by a break in the line of bushes that grew along the coast. This spot is left blank in the Admiralty charts. About dark, we anchored in 1½ fathoms at the sandy beach. There was a large mangrove creek close to us on our right. Just before dark, saw large flights of cockatoos. During the night heard birds and the howl of the dingo on shore. Mosquitoes troubled the early part of the night, but they died or became torpid as the cold increased.

17th.—At sunrise noticed other mangrove creeks in the distance on each side of us. Landed, walking through soft mud, and afterwards got the boat on hard sand. Numerous tracks of natives and dingoes on the beach. At breakfast a dingo made its appearance, and we thought of shooting it, till it was suggested that it belonged to the natives. It made cautious approaches, now and then lying down, and watching us. It had a cord round its neck. It took no notice of the report of firearms. At last it sniffed food, and its advance became very rapid till we threw it some meat. After tasting this it ate out of a plate
and then from our hands, and finally showed its gratitude and the delicacy of its habits by cleaning all our dishes and cooking utensils, and remained at our fire all day. At about 8 a.m. Mr. McMinn, White, Davis, and I started for the south point of the range south of the Barthelemy. We steer east, and at starring crossed and rounded a number of salt creeks, about which were numerous tracks of natives. We saw fishing-weirs across the creeks, with small openings, and near them matings or nets with which, we suppose, the natives closed them as they wished. After getting clear of the creeks and mangroves we came to a hard plain, with grass and rushes; the grass wiry, but better than we had seen on the coast before. Much of the plain had been burnt. Before us was the range trending from south to north, or north-west, the Barthelemy Hills to the north of the end of the range, and other hills beyond in the same direction. We had a beautiful south-east breeze; the day was mild, and altogether like a May day in South Australia. We walked on briskly, elated with the idea of soon being on high hills, and having a view of good country. About 2 miles from the sea we came to a fresh swamp, and walking through it soon came to another, and then found the swamps continuous. We walked 2 miles through water, and then turned northward to some distant timber, hoping to find there dry land that would lead to the Barthelemy Hills, whence we hoped we could travel along the range and return by a different route. When we reached the first clump of timber we found it a mere island in the midst of the swamp. One of the party dropped into a hole up to his shoulders in mud and water, and was rapidly disappearing when he was pulled out. After this we found the water invariably deeper when we came to timber, which was principally paperbark. We waded through rushes and reeds or small bamboos till our party began to separate. We then went for a considerable distance through tall flags, several feet over our heads, till the water reached to our waists, and deepened so rapidly that in a few steps we should have been reduced to the necessity of swimming, so we reluctantly returned, seeing water in every direction. Logs were floating about, and leeches abounded. I have no doubt we were on the edges of a lake, and that the water we walked through con-

tracted as the dry season advanced. We had a view of at least 100 square miles of swamp.

On the 18th. at daylight, out of sight of land, going across Cambridge Gulf, with a high sea. Rough all day.

19th. About two hours before daylight saw land. Passed Cape Bernier, and sailed along the coast. About Cape London-derry it is a fine bold coast—high cliffs, and sometimes ranges of hills coming to the water's edge, with mountainous country in the background. All on land looked dry, and had that desolate appearance which the Australian coast generally wears in the summer season. Passed Cape Bougainville, and in the evening, as the navigation looked dangerous from the number of islands and breakers we tried to find shelter under an island about 12 miles from the cape, but got on a reef with less than three feet of water on it. As we were endeavouring to get clear of this danger, a heavy breaker came rolling on. The boat answered her helm beautifully, went head on, and rode buoyantly over the surf. We then head reached north-east, keeping a watch. After standing out for some miles the water suddenly became smooth, and we struck on rock. Soon after we saw breakers all around and land at no great distance. Bump, bump, grind, grind, went our poor boat on the rocks; we tried hard to get her off, but she continued to catch on the reef. Our situation was now critical. We were a dozen miles from the mainland, with no chance of escape in case of shipwreck, which seemed inevitable for the soft wood of which our little vessel was made could not long stand such severe usage. We believed our voyage of life was about to end with that of the Forlorn Hope, and it seemed that the motto on our flag would have a mournful significance. At last we got clear, and sailed back towards the island we had left in the evening, and anchored in 2 fathoms.

20th. A heavy sea broke our rudder this morning, and we anchored and repaired it. Sailed in various directions, trying to avoid the numerous reefs and shoals, till at last we resolved to go eastward till we got outside them, and then still work round all these dangers—making a detour of 80 or 90 miles. The wind being against us, we ran down to the eastern side of Vansittart
Bay, and found safe anchorage off a sandspit, at 5 fathoms, about half a mile from the land.

21st.—Got under sail at daylight; but as everything foretold rough weather we sought shelter, and anchored in 4 fathoms at Troughton Island, a quarter of a mile from the shore. We had a fine view from here. To the west, the cape—a round hill with a spit of land running out; to the south, the shores of Vansittart Bay, Troughton Island, curving round and partly obstructing the view; and behind all, in the distance, on the mainland, high ranges, and an immense quantity of smoke ascending from them.

22nd.—Started at daylight with a gentle breeze, smooth sea, and balmy weather, steering north till towards evening, when we ran west about 15 miles.

23rd.—After a fine night’s run we struck at 3 a.m. on a reef. Got the boat off, and anchored till daylight in 7½ fathoms water. At dawn were close to three remarkable rocks. All the forenoon among shoals and reefs. Tacked in all directions, and at length, to simplify matters, sailed over a shoal. Rowed a great deal. Plenty of turtles and fish about. Heavy dews at night. Quantities of porpoises. General course south-west.

24th.—Passed islands marked on the charts as south of Casini Islands. Passing islands all day.

On the 25th and 26th still islands, islands, islands. After leaving Cape Bougainville we passed at least 500, of every shape, size, and appearance. Some are several miles in extent; others are mere detached rocks; some have stunted vegetation; others look quite bare; some look like detached portions of hilly ranges; some conical; some round or oval, and flat-topped; some slope to the water’s edge; some are bold and cliffy; some smooth; some diversified with sandhills; some are rugged and uneven, with large rocks piled together in a wild and fantastic manner; some exhibit a sandy beach; others are guarded by barriers of reefs. Infinitely varied as these islands are—wild and picturesque, grand sometimes almost to sublimity—there is about them all an air of dreariness and gloom. No sign of life appears on their surface; scarcely even a sea bird hovers on their shores. They seem abandoned by nature to complete and everlasting desolation. The barrenness and silence were more depressing to us from the circumstances of our position. We had thought to find shelter among so many isles, safe anchorages, when the storms rose and the sea raged, but the islands were more inhospitable than the wide ocean. There was deep fathomless water up to their shores, except where we were on treacherous reefs. Whatever wind blew we were compelled to drift, and were often forced out of our way by furious currents and eddies. It was a relief from weariness, anxiety, and danger, when we escaped from this archipelago. We tried to get into Camden Harbour through Rogers’s Straits, but failed, being puzzled by islands, and baffled by breakers and eddies.

On the 29th felt at daylight considerably uncomfortable. Our provisions were out; we had been trying to catch fish, but although there were shoals they would not bite. There was no appearance of game on shore, and no sign of a settlement. The appearance and the bearings of the coast, islands, and channels were so utterly different from the description on any chart, that we had the greatest difficulty in determining which way to steer for the harbour, and some of our party became thoroughly sceptical as to its existence. At last we rowed through a narrow and tortuous passage between islands; and soon, to our great relief, we saw a boat in the distance. On coming alongside we found a surveyor (Mr. Cowle) and party. They had a remarkably dull and despondent look that rather surprised us, expecting to meet everyone looking happy in so thriving a settlement as we supposed Camden Harbour to be. We soon heard the worst news. The sheep were nearly all dead, and the whole settlement was a failure. We remained five days at this unfortunate settlement, and gained ample information respecting its history, and the character of the land in its vicinity. The harbour is most beautiful. It stretches to the west for eight miles to where it is entered by three channels coming through reefs and islands. It is bounded on the south by the high rugged hills of the mainland; the loftiest eminence being Mount Lookover; on all sides are bights and inlets, while high round-topped islands complete the picture. The rise and fall of tide is 37½ feet, and
at low water islands and forests of mangroves are made visible that were out of sight a few hours before. The country was wild and rugged. Dark and irregularly-shaped hills that seemed to be composed of masses of loose rocks. Stones everywhere; but upon every spot of soft ground, and among the rocks, there was a luxuriant growth of rank grass. Some of it was kangaroo-grass, but in quality utterly different from that of the southern colonies. Far away were bold mountains and ranges, and leading to them a succession of hill and valley, but all of the same stony character. The trees were scarce and stunted, the most remarkable being the Baobab, or gouty stemmed tree. The air during our stay was remarkably clear, and in the morning quite bracing. We visited the settlers, who were encamped about two miles from the Government camp. They were all ruined, and intending to leave by the first opportunity. They gave dreadful accounts of the weather at the time of their arrival. There had been several deaths from sunstroke: in one case a man was picked up dead in the bush; in another a settler, after spending a day on shore, returned to the vessel by which he had arrived, and expired in a few minutes. It must be remembered that in these cases of coup de soleil the parties had not landed many days, and probably did not take the precautions necessary to guard themselves from the effects of a vertical sun. The effect of the heat upon the sheep probably exceeded anything of the kind ever before witnessed. Their feet seemed burned with walking on the stones. All night they were in agony; their panting almost amounted to roaring. The extraordinary heat was probably increased to a great extent by the refraction from the rocks. At this time there was little grass; but when it did grow, and even after it had arrived at maturity, it was worthless. The few sheep that were left fed on it greedily till their stomachs were enormously distended, but they still fell off in condition. I saw the flocks at grass, and never, upon the worst run after the worst drought in South Australia, have I seen such wretched objects. They did not weigh more than 18 pounds, and the sight of one killed and dressed I shall not readily forget. The Government sheep, however, had not lost condition to any great extent, so that there was probably something in the management; but the fact that they had not improved was sufficient to condemn the country. The settlers’ horses had to be fed with corn and bran, although they did no work and the grass was abundant. The Government horses were low in condition. They had done some exploring, but certainly in South Australia horses would do three times the work and look in fair order. A more unfit spot for stock of any description could not be found anywhere. There is probably good country inland, but too far off, and the route too impracticable for it to be connected with Camden Harbour. One settler found and took on lease a small piece of country with good grass and useful timber, eight miles from the camp, but such spots were very rare. The whole scheme for settling Camden Harbour was rash and ill-considered.

Some few weeks before our arrival the settlement had been visited by Malays. There were about 300—in seven proas and 30 canoes. They were a wretched looking lot, and for firearms had but a few old rusty flint-muskets and two or three small rusty cannon. The natives drove them away from the watering-places, and killed one of their number. These are the formidable pirates against whose attacks it was supposed the party at Adam Bay might have to maintain a desperate defence. At Port Essington the Malays were afraid of the natives, who were remarkably harmless.

On the 3rd June we took leave of our host, from whom we had received every assistance in preparing for the continuation of our voyage, and every attention to our comfort that courtesy and kind feeling could suggest. We took with us Her Majesty's mail and a multitude of messages to people in Perth. On leaving the landing at the camp we sailed over to the wreck of the Cailliance. Here several of the Victorian settlers who had purchased the wreck had their tents erected on the shore, and were busy in preparing to burn the hull as the only way to get the copper from her. We purchased a cable, and, soon after sailing, an enormous column of smoke arose from the wreck. The Cailliance was on fire as if in honour of our departure. Had that vessel been at Adam Bay a cutter would certainly have been made from her for the majority of the party to escape by.

On the 5th no land in sight.
On the 8th, about 4 a.m., the ironwork of our rudder broke; lowered sails, and put out a steer oar; sea high and rough. Sea moderated after noon, and we mended the rudder and baled out the boat. Some of the party unwell; two having cramps, another bilious, another with dysentery, and a fourth very sick, but ate very well. Wind variable, and high at night.

9th.—The sea getting worse till after daylight; a dreadful cross sea that our sailing master, White, said was enough to swamp all the boats that ever were made. At sunrise the sight was terribly grand—the long swell, the mountain wave, the deep hollow, the white foam—as far as we could see, the scene was one of wild disorder. When upon the crest of a mighty sea, we saw ourselves to descend into a deep hollow like the extinct crater of a volcano. Down we went, high seas foaming all around us. The bowsprit just kissed the water, and the Forlorn Hope rose like a duck upon the next wave. The storm did not increase after sunrise, and at 10 a.m. showed signs of moderating, and before noon we had all canvas set. Latitude 17° 14' 35"; wind S.E. by S. Porpoises following us, and shoals of fish about. Yellow snakes with black spots floating on the surface; jelly-fish abundant. In the afternoon the wind rose till it increased to a gale. The sky had a hard, cold appearance. The waves awfully high, and we shipped some heavy seas; one in particular sunk the boat low, and we had to bale for our lives. We passed an awful night, expecting every minute to be our last. Half drowned and bitterly cold; constantly bailing; laying to with a leg-of-mutton sail.

10th.—At daylight the scene was frightful, and we longed for a ship to deliver us from our peril; but we knew that we were out of the track of all vessels. Snakes floating on the billows. About midday the storm showed signs of moderating, and we hoped to make sail again, but as evening came on the wind rose to a gale, and we found we had to pass another night of suffering and peril. One of the party was seized with shivering fits. We had no medicine, but administered rum and essence of ginger; rubbed his feet and covered him up in his bed; blankets, clothing, and everything saturated with water. Night clear, and the cold biting.

11th.—Sunday. We had passed through a night of tempest, danger and pain; the storm worse than ever, the waves not higher, but we had cross seas, with the billows breaking over the boat and dashing her round. The invalid suffered very much, and—poor fellow!—we were unable to cook, or do anything for him but give him the rum and ginger. As the morning wore on, the tempest still raged. There was an awful feature in the storm that morning. The waves were high and steep, and as two of us sat watching the horrible scene we saw an immense sea approaching almost perpendicular, and a few feet at the summit quite so, and of a bright green colour and capped with foam. ‘We shall never get over that,’ both exclaimed; but there is no craning at those fences, and on we went. As we expected, the top of the sea broke over the boat, nearly upsetting her, and dashed her down the steep descent, and the mass of water surging under dropped us down on the other side. ‘Bale, quick!’ was the cry, and we prepared for the next sea. We had three of these walls of water, with their green tops and crests of foam; and it seemed a miracle how we escaped from such danger. Each time the boat was dashed down in the same way, and a quantity of water thrown into her. At noon we were once more deluded with the hope of the gale lessening, and we changed our leg-of-mutton sail into a double-reeded foresail. We took latitude 17° 86' 32". In the evening the sea and wind increased, and we were obliged to take in canvas. The waves broke against us from three different directions. We were now so exhausted that, although in such danger, we could sleep, and even the man at the helm kept continually dropping off and waking with a start. We were cramped and tortured with rheumatic pains, caused by being so long wet and remaining in the same posture. During the night we cut down the mainmast and let it float away; we could not unfasten it and take it down without moving about and probably upsetting the boat.

12th.—Morning broke upon us still battling with the storm. Awful as the danger was, there was a fierce and almost pleasing excitement in seeing the gallant way in which the Forlorn Hope rode over the mountain billows, or recovered herself after being dashed against by cross seas. During the day the storm abated.
A few Boatswain-birds came round us. We ran all night under a close-reefed foresail.

13th.—Our situation still looked more hopeful, we could see over a greater expanse of wild sea and white surf. The breeze was strong, but we were getting under the influence of the land, and with a south-east wind the sea moderated fast as we approached the shore. We began to think that our worst danger was over, and to feel proportionately thankful. No men, probably, were ever in greater peril for so long a time. Fortunately we had moonlight—the sky, night and day, wearing a hard glaring appearance, with scarcely ever a sign of cloud.

14th.—About 10 a.m. saw smoke in the direction of land, and at 11.15 saw land itself. Latitude at noon, 19° 45' 54". The coast low and barren-looking. Along the shore white sandhills with little vegetation. Endeavoured to land in the evening to dry our clothes, but there were heavy rollers that rendered it dangerous, so we stood out, and anchored in 4 fathoms.

19th.—Sighted Cape Lambert, which we reached about 2 p.m., and entered Nicol Bay, sailing between the mainland and Bezout Island. The coast bolder than any we had been accustomed to for some days. The hills appeared to have a good deal of ironstone about them. The rocks at the shore were rough and strange-looking—some washed into arches and concaves, others into the most rugged and fantastic forms, with multitudes of excrescences like stalactites. Patches of sandy beach appeared, and in places reefs jutted out from the shore. At 5 p.m. we were hugging the land on the south side of the bay. We sailed principally by solid rock of the colour for some distance of copper-ores. We almost fancied we could see the green and yellow carbonates. The land at the other side of the bay plainly visible. Plenty of turtles. Jelly-fish of a peculiar shape, like mushrooms, with a horsetail attached. They were of different colours. Snakes following us. At about 4.30 heard a cooey, and saw natives on the summit of a rise. They motioned to us to come to them, and we steered towards the beach, but could not land on account of rocks and the swell. Tried to communicate with the natives, but we were unintelligible to each other. We were obliged to

turn away, and when we did so they all gave a tremendous groan. There were about twenty men, women, and children. On our moving up the bay one ran along the top of a hill to watch our movements. About sundown we fancied we could see tents, and just after dark saw a light, when we cast anchor. Fired two barrels of a revolver and were answered by three distinct signal-lights, when we fired another barrel in reply, and rested satisfied we had found the settlers. Latitude at noon, 20° 39' 6". During the night we began to doubt whether the settlement was not a native one.

20th.—At daylight all doubt as to whether we had found civilised beings was removed, for we heard a cooey, and immediately afterwards saw a native inviting us ashore. As however, the shore was some distance from us, and we had a fair wind, we pushed on, thinking the settlers must be higher up the bay, as we had seen no sign of a landing-place. We passed islands, rocky points, and long stretches of low shore fringed with mangroves.

On the 22nd, after going on shore in Nicol Bay, sailed at 2 a.m., and rounded point after point of the mainland, and an island running north of it, till a little before 8 a.m., close to the north point of the island, we saw a small sandy bight, and determined to land and get a view from the hills. On nearing the shore we saw a native, who ran along the beach, and then among the rocks, making great gesticulations. We spoke to him, and made signs that we were going to land, when he ran to meet us, and three or four other men made their appearance, with four boys. Two of the men had spears, and shook them at us; but as we approached nearer, they laid them on the beach. Not knowing how many might be in the background, we loaded all the firearms, and running the boat ashore, two of us landed, one having a revolver in his belt. The rest of the party stopped for some time in the boat. Eight natives met us, and were friendly enough. An old man kept in the distance, and did not come to us during the day. He was probably behind the times, and the slave of antiquated prejudices against foreigners. With this anticosmopolitan was a remarkably fine dingo, large, broad-chested, and in good condition. We found the natives knew
nothing of the settlement, but they had seen white people. They used of their own accord about eight or ten English words, including water, baccy, sugar, by-and-by, and thank you. They begged for food, but that was too scarce with us at that time. We gave them knives and tobacco. They offered us fish ready cooked, but we were afraid they would expect us to pay for the meal with interest, or it would have been welcome. They appeared to have some notions of the habits of business men, for it was not till evening that they offered to introduce us to their families—an invitation the necessity of proceeding on our journey prevented us from accepting. They showed us water in the rocks nearly at the summit of the hills, about three-quarters of a mile from the boat. We took in a full supply in six journeys. The natives showed us some of their drawings on the rocks. There were sketches of fishes, turtles, lizards, and different kinds of birds, including emus. One native made a sketch of a turtle on the sand. If the performance would not have satisfied a critical eye, it had at any rate the merit of being dashed off with a free hand. One of our party then drew the outline of a horse, which sorely puzzled them. One of the men stood more than six feet, and most of them were above the medium height. All were badly shaped and skinny. In the evening we prepared to start, and not having been able to find any signs of a settlement, were determined to make for Champion Bay. We had about 60 lbs. of flour, 22 lbs. rice of the worst quality, and two or three pounds of oatmeal and maize. We determined, after finishing the two latter articles, to put ourselves on three pints of flour and rice per diem for the whole of us. Having taken in wood and water, we went on board, and lay at anchor for the night.

23rd.—At daylight weighed anchor, and rounding a point steered W.S.W. for what appeared an opening ahead of us. After four or five miles got into shallow water—1½ to 2 fathoms. Passed several low, square, rocky islets, and a grassy island. Tried an opening to the north abreast of us. On reaching it found it very narrow—not above 20 yards wide. The current was very strong—at least eight miles an hour. Sometimes there were three fathoms of water, and then rocks three feet from the surface. We lowered sail on approaching, but the current was so powerful the only course was to go through the channel. We backed water with the oars, and shoved the boat off the rocks as she rushed through like a race-horse. We then found that instead of being in the open sea we were surrounded on all sides by islands and reefs, except to the east, the direction from which we came. We turned in that direction, and the wind being against us pulled till nearly midday, when we were past last night’s anchorage, and had a full view of our old landing-place. Cooked oatmeal and flour. We lit the fire in a camp-oven, and boiled in a bucket. We boiled everything, to make it go further. About 1.30 took to the oars again, and continued pulling till after 4 p.m., when the wind enabled us to sail. At sunset there was a strong current against us, and we anchored between Legendre and Delambre Islands, in 11 fathoms water. Both islands are rocky but grassy on their surface. The passage between Legendre and Haay Islands appeared impracticable on account of breakers. A north-west breeze during the night made us anxious; we could not help thinking of the much dreaded North-west Cape, and feared the most dangerous wind had set in.

24th.—At daylight found to our joy that the wind had shifted to the S.E., and that we had probably taken leave of Nicol Bay with its dreary and desolate-looking scenery.

The remainder of the voyage to Champion Bay (Geraldton), where they arrived on 8 July, was relatively uneventful. The arrival of what was at first thought to be a shipwrecked crew created such interest in the distant settlement that the party was comfortably accommodated in both the hotels before the suspicion that they might be escaping convicts was raised. However the clearance and mail from Camden Harbour satisfied the ‘functionary’. ‘In the evening several of us visited the Mechanics’ Institute, and buried ourselves for hours among the colonial, but, of course, more particularly the Adelaide, journals.’

When Stow eventually reached Adelaide, he and others created such a furore that the government decided to recall Finnis and to send an experienced explorer, McKinlay, to gather more information.
Stow’s account of his voyage appealed wonderfully to his mid-Victorian audience, and was published in a number of other colonial newspapers as well as the South Australian Advertiser for which it was written. It was also put out as a pamphlet and when this was read as a paper before the Royal Geographical Society in London, the President compared the voyage with that of Bligh when set adrift by the mutineers of the Bounty. When it was pointed out that sailing eastwards to Cape York would have saved a thousand miles, he replied that ‘they had already taken that route in the voyage from Adelaide to Adam Bay, and they went like true geographers, to explore new lands.’

FURTHER READING. The original newspaper account of this voyage was published in the South Australian Advertiser in August and September 1865. Probably in the same year this, together with some additional remarks on the Perth region of Western Australia, was published as a pamphlet, Voyage of the Forlorn Hope and Notes on Western Australia (Adelaide, n.d.). The original account was read as a paper before the Royal Geographical Society in London on 27 November 1865, and reprinted in the Proceedings, vol. 10 (1866), pp. 34–52.

In later life Stow wrote another account, giving considerably more detail on the history of the settlement at Escape Cliffs, The Voyage of the Forlorn Hope 1865 (Melbourne, 1894). Though containing some fine abuse of the site and the management of the settlement, it lacks the immediacy of the earlier account. More recently, another version has appeared, F. Clune, The Forlorn Hope: A Sea Saga of the Sixties (Melbourne, 1945), but this is no improvement on the original. J. A. Ferguson, in an unpublished bibliography in the National Library of Australia, lists another account of the voyage published in 1884, but neither he nor I have been able to find a copy.

The first of the two minor quotations is from the remaining portion of the original account. The second is from the published discussion following the paper in the Proceedings of the Royal Geographical Society.

7 McKinlay’s Expedition from Escape Cliffs

F. HOWARD AND R. H. EDMUNDS

In mid-1865 the South Australian government was presented with a crisis in the management of the Escape Cliffs settlement. The reports filtering back, by means of J. P. Stow and others, roundly condemned the administration of the Government Resident, B. T. Finnis, and his choice of a site for the settlement. With remarkable credulity, the government despatched orders recalling Finnis immediately and sent up at the same time an exploring party to look for a better site. The Ellen Lewis, bearing this variety of benefits for the settlement, arrived on 5 November.¹

The exploring party was under the command of John McKinlay (1819–72), a Scot who had come out to Australia as a young man. After considerable pastoral experience in western New South Wales he had moved to South Australia where, in 1861, he was chosen to lead a party in search of Burke and Wills. This expedition, mainly through arid country, he appears to have conducted with considerable skill. He was therefore an obvious choice to send north four years later, but this was to a very different environment.

McKinlay’s instructions ordered him to proceed from Escape

¹ The most useful map for this chapter is on pp. 170-1.
Cliffs to the Liverpool, Roper and Victoria Rivers (a grand tour indeed), and from his travels recommend a better site for a capital. His second-in-command was to be R. H. Edmunds, the leader of the previous year's relief party, who was still at the settlement. Edmunds may have been somewhat soured by being passed over in favour of J. T. Manton as Acting Government Resident to replace Finniss (though he later sided with Manton), and in the general atmosphere of bickering and petty jealousies it did not take long for him to fall out with his leader.

For more than two months McKinlay waited around, partly for H.M.S.S. Beatrice to return so that a meeting place could be arranged on the Liverpool, and partly because of illness among his men and horses. Meanwhile he quarrelled with Manton; the sheep that were to provide food for the expedition died off; the horses got no better and the wet season approached. Eventually in the middle of January 1866 the party of fifteen men and forty-five horses set off in 'boisterous and showery' weather.

In the midst of this shambles it is a relief to be able to record that there was at least one person capable of good sense and efficiency. Captain Howard of the Beatrice submitted a report on his return to Adelaide which sets out clearly his part in the unfolding drama.

H.M. Surveying Schooner Beatrice, Port Adelaide,
26th September, 1866.

Sir—I have the honor to forward the following account of the proceedings of the Beatrice during the present year:

We arrived at Adam Bay,² from Sourabaya and Coepang, on the 28th of December, 1865. I then received your instructions to proceed to the Roper and Liverpool Rivers, with provisions for Mr. McKinlay and party. I also received the bills of lading for the provisions sent up from Adelaide for our use. I could not receive on board the provisions themselves, as we had completed to six months at Sourabaya, and so left them in the Government store.

During the month of January we received on board a supply of provisions for the exploring party; and, on the 16th, assisted in swimming their horses and conveying stores across the Narrows.³

Before parting, Mr. McKinlay and myself arranged a place of meeting at the Liverpool River, and also the date he wished me to be there, viz., the 1st of April, when I was to wait for his arrival. We also arranged that the schooner should fire a gun at 8 p.m. every evening, to direct the party to our anchorage when they had arrived at the river.

The Beatrice sailed from Adam Bay on the 28th of January, and arrived in Mountnorris Bay on the 30th, and at once commenced surveying operations, which were continued, whenever the state of the weather would allow, till the 10th of March, by which time we had examined the main coast line from Bowen Straits to Pt. Brogden, also the principal islands in the bay.

The natives were very friendly. Several spoke English, and remembered the names of people at Port Essington.

During our stay, two Malay proas arrived in the bay, and established themselves at Copeland Island. The Malays put up their curing-house and boilers, and commenced their fishing for trepang at once. Each proa had about fifteen fishing-boats, manned by a crew of six or seven men, one or two of whom were generally Australian natives. The Malays seemed a quiet set of people, and took little notice of us. The proas hoisted Dutch colors when first we approached.

Buffaloes are numerous, and we succeeded in obtaining several not more than half a mile inland. The natives say there are pigs also on Coburg Peninsula; and some of our men, who got lost in the bush for a time, say they saw a pony.

After leaving Mountnorris Bay we coasted along to the eastward, making a track survey as we proceeded. We saw numerous Malay fishing-boats off the east side of the Goulburn Islands and in the bays to the eastward. Off Cape Cuthbert we got a spurt of the S.E. trade, and met several proas running to the westward, under Dutch colors.

We arrived in the Liverpool River on the 25th of March, and had continuous heavy rain till the 2nd of April, after which time the weather became generally fine.

³ This was at the mouth of the Adelaide River, where a subsidiary town was being surveyed—in a mangrove swamp.
We surveyed the Liverpool River, and, taking the schooner up into fresh water, proceeded up as far as we could get in the boats.

The natives on the west side of the river never came near us, and those on the east side attacked Mr. Guy, whilst taking observations on shore for the survey.

On the 18th of May, having previously buried two bags of flour under the sandhills, S.E. of Pt. Hawkesbury, with letters, &c., marking the spot, we left the Liverpool and worked along the coast to the eastward, carrying our track survey as far as Cape Stewart. We returned to our anchorage on the 24th of May, and found the flour, &c., untouched.

On the 11th of June, having only fourteen days' provisions left on board, we weighed, and steered for Adam Bay. We had seen or heard nothing of Mr. McKinlay or his party. I left another letter at the sandhills, informing McKinlay that we would be back in the first week of July. We arrived at Adam Bay on the 18th of June. Found that they had heard nothing of McKinlay, and that no vessel had arrived. The party, being out of meat, had begun on our salt beef.

We started on our return to the Liverpool on the 25th of June, having completed to fifty days' provisions. I stated before sailing that, should Mr. McKinlay not have been to the Liverpool during my absence, I should proceed on to the Roper River; but the information I afterward received caused me to alter my route.

On the 29th of June we anchored in Mountnorris Bay, for the purpose of getting a buffalo, and whilst there a native, calling himself Bob White, of Port Essington, volunteered to accompany us to the Liverpool River; and, as I wished to conciliate the natives there, I took him on board.

While passing the bay west of the Goulburn Islands, Bob said that he had heard that Mr. McKinlay and party had been stuck up by the floods at a place called Arrah. Arrah appeared to be the 'Tor' of Captain King—a tall pillar of rock standing out of the plain, and visible from the sea. I therefore pushed on for the Liverpool River, in hopes that the party would be able to reach there in the present state of the country.

We arrived at the Liverpool River on the 3rd of July, and took up our old anchorage south of Entrance Island. As we rounded the island, Bob White recollected the place; he had been there in the service of the Malays, and understood the language well.

We tried to open communication with the natives the first day, but they fled as usual.

I visited the sandhills, and found the things buried untouched; so we had nothing to do but wait. So on the 9th of July we took the vessel up the river to fill up with water, and there succeeded in getting the natives on board through Bob White.

One native declared that his brother had come from Arrah only a fortnight before, and that Mr. McKinlay was still there. So I arranged with Bob that he should take a letter whilst the vessel remained at the Goulburn Islands. But when we arrived there the natives told us Mr. McKinlay had gone down to the mouth of the East Alligator; so I sent Bob over from Mountnorris Bay to that river. He came back without finding anybody, and the same night a canoe came off, and reported that Mr. McKinlay had just arrived at an island on the west side of the Coburg Peninsular in a large boat, also that he was coming to Port Essington to shoot buffalo. Bob told us, too, that they had cut up all their horses in small pieces to eat, as they had no provisions. I dispatched Bob across the isthmus with a letter, and weighed next morning for Van Diemen's Gulf, taking a native with us to point out the island. Owing to light winds, we did not get to the island pointed out as Eudalgoor, where Mr. McKinlay was reported to be, for some days, and by that time I had found our pilot was misleading us for his own purposes, and, as I expected, we found no traces of white men; so I landed the black, and proceeded to the East Alligator River, where we obtained information from the natives that the party had gone to the westward. We made sail accordingly for Adam Bay, where we arrived on the 31st July, and found the exploring party had arrived on the 5th.

At Adam Bay I received your instructions to return to Adelaide, and left on the 14th of August, with Mr. McKinlay and three of his party.
We called at Coepang for provisions and letters, and left on the 26th of August, arriving here this day.

I have the honor, &c.,

FREDERICK HOWARD, Master Royal Navy.

To Sir Dominick Daly, Governor-in-Chief, Adelaide.

At least some of the puzzling information that Howard had received was true, but he can hardly have guessed the extent of the fiasco. The most detailed account of what had happened is contained, not in McKinlay's journal (most of which was probably written up afterwards) but in that of his surveyor and second-in-command, Edmunds. However this journal, some of which is reproduced below, should be read with caution, since Edmunds is hardly an impartial recorder. On at least one occasion he and his leader were not on speaking terms, and it is probable that the fault was fairly evenly distributed on both sides. Furthermore it is difficult to decide exactly when Edmunds wrote his account, how to reconcile the various differences between his and his leader's accounts, and precisely what the relationship is between the manuscript as we have it and his field journal. To make even his final manuscript more readable, a little more punctuation has been added and a very few obvious errors of expression corrected.

Four and a half months after starting, the expedition had progressed very little more than a hundred miles from Escape Cliffs, and having endured the worst of the wet season held up by overflowing swamps and flooded creeks, the party was now approaching the escarpment country near Oenpelli.

Tuesday, 29th May.—Everyone up by starlight, men looking for horses, the grey pony probably lying dead somewhere. He has been one of the pluckiest of our horses, but lately through poverty and weakness almost useless. We are determined not to wait longer for him, and started at 8.15 a.m. Just as we were ready one of the men found the poor grey pony in the creek dead. He had apparently gone to drink and had fallen in a shallow hole and was too weak to extricate himself. The first part of the journey through high grass 8 or 9 feet, then on a bearing of 4° 30' to 5° for about 4 miles. Very rough travelling now between high detached rocky, some lofty peaks to all points of the compass, a perfect maze, timbered, parts sandy and some boggy places. For about 1½ miles our course was N 30 W crossing two well timbered creeks, drainage N and West, then via a plain swamp and lagoons close by on N at ¾ mile. On this soft flat had to change course to N 31.30 E to camp 2 miles. Total distance today about 10 miles ... We arrived here at 3 p.m. pretty well used up. McKinlay and Thring managed to scramble up one of the peaks to obtain a view of the country and returned at sundown. McKinlay requested me to walk with him away from the camp. He wanted to speak out of the hearing of the men. Then he said, 'You take one of them and climb one of the peaks and look at the country. It made me turn sick and giddy. I have done all a mortal man can do, but fate is against us. I don't feel equal to do anything tonight, but in the morning I shall tell the men I can do no more and each must do the best he can for himself.' I remonstrated with him but he seemed determined and we returned to camp and after supper turned in, not to sleep but to argue ... [The next four days were spent in argument and reconnaissance.]

Sunday, 3rd June.—I read Service this morning, the sermon from 107 Psalm. After the service Ryan, Horner and Hulls came to ask me if I thought McKinlay would return. I asked them why they asked such a question and they said because they did not think he would. I pointed out to them that if he had [perished, deserted] he had left us all there was to eat and told them to go away and not entertain such foolish ideas. McKinlay, Glen and Thring returned a little before 3 p.m. They had with great difficulty found a way through the swamps and found a large river, larger than the Adelaide, with steep impassable muddy banks, full of alligators. This is the river we can see from the peaks here washing the perpendicular bases of the rocky hills. It is intended to go to the river which McKinlay declares to be a new one and has named it the Alexandrina. I am very doubtful about its being a new one. Tree marked MK 39—. [Several days were then spent in moving the whole party up to the river.]
Saturday, 9th June.—Glen, Ryan and Crisp returned with the horses and as everything was ready a start was immediately made N x W 1/4 W through dense fan palm and scrub; at 1/4 mile passing the end of a boggy swamp which stretched away on our left; 2 1/2 miles further on same course to some thick timber and scrub, then N x E 1/2 E nearly 2 miles. Then a zigzag course N and easterly for 2 1/2 miles to the river. Camp 41 about 4.30 p.m. A party of 17 natives followed us to camp and intimated their intention of looking us up again in a sleep or two. I shot at and hit a large crocodile fair in the head but he got away. McKinlay said this evening that he intended to make a raft and go down the river. I asked him what he intended to make it of. He said saplings. I asked him if he expected it to float, as the timbers about here are gum and what was he going to fasten it together with. He said, 'Float, yes; and we'll tie them together with tent lines and the tether rope.' I told him that in the first place I had seen no timber to make a raft of that would float, (there were no bamboo on this river); if we had everything with which we could construct one, it would be absolutely unmanageable; that we should be at the mercy of the current to drift up with the flood and down with the ebb, if we were not left on some point and see the thing break adrift while we helplessly looked on; we should never reach the coast and if we did, we should be in very much worse position than we were here. He asked why we should be worse off. 'Because we could not travel along the muddy mangrove shores in any direction.' The river here is about 150 yards wide. It is neap tide now, but the flood marks on the steep muddy banks show that the spring tide rises from 12 to 14 feet with about a three knot current, and the river is plentifully supplied with crocodiles, some of them very large. Tonight McKinlay commenced about rafting down the river again and I tried to point out the impracticability of the thing and told him I would not go in it, my life was as dear to me as his and I would not fool away our men's either. Then he accused me of thwarting him in everything he proposed and wanted to know why the Hell I did not propose something better. I then suggested, if he were determined to reach the coast, we should build a sort of punt, by building a frame work of saplings and pegging on paper bark to the sides and bottom and caulking it with the blue clay on the river bank. The idea seemed to strike him and he asked me to draw a sketch which I did thus, 20 feet long by 8 feet wide and 2 feet high. This he thought would not be high enough and asked me to let him have a pencil and paper in the morning and he would try his hand at a drawing.

After a lengthy argument as to the size and shape of the punt, McKinlay suggested that the hides of the horses, cut into squares and sewn together, would make a better boat than bark, and this plan was adopted.

Monday, 11th June.—The men are busily employed cutting saplings for the framework of our boat which I select. God speed us or what remains of us will be eaten by mosquitoes, they are simply terrible. Today I fixed my position on the chart and from a rocky hill about a mile south of us I traced the river for some miles to NW and apparently to the westward of some rocky hills about 10 miles down. It is impossible for it to flow in the direction indicated by the blacks. I am certain this river is the East Alligator. This evening I told McKinlay and gave him my reason and showed him that if it flowed as they pointed out it would follow the coast line something like the Coorong in S.A., but he would not have it and got angry and said I must be a fool if I thought I knew better than the natives bred on the country. I pointed out to him that they may have misunderstood him and pointed to another river, but he would not have it so. Within the past 33 days I have lost in weight 33 lbs., McKinlay 54 lbs. and all the men are getting pretty thin. I am so far the best of the lot so far as weight goes. We are all very weak; our hair has ceased to grow and our nails very thin and quite soft. The want of salt is worse than hunger. It is amusing to hear the men relate the splendid feasts they have had in their dreams. The bush men do not like the idea of our water journey. Killed two horses today and are jerking the meat for sea stores. A lot of natives here again today, some of whom were new, approaching cautiously.

Tuesday, 12th June.—Progressing with the boat frame. Ryan and Tuckwell are our builders under my supervision. They are
very handy fellows and work well. It will be full moon on
27th and I am anxious to catch the spring tides to launch her.

Wednesday, 13th June.—There are natives in the neighbour-
hood about us but they do not appear to want our company.
Men boat building and drying meat.

Thursday, 14th June.—The natives are burning the country
all round us, our camp is very badly chosen in case of attack,
we are camped on the steep muddy bank, backed up with a
dense scrub within 20 yards, in fact blocked in except one side
(south) where the scrub recedes from the river and the river
bends to the east making an open plain. We camped here to be
near the saplings to save labour and our strength and most of
the men are shoeless. Two horses killed today, very poor, it
seems an awful pity to kill the poor brutes. Some natives
appeared on the opposite side of the river and hailed us. Some
came over but left their women behind. They need not have
been afraid. A Venus would be perfectly safe and pure amongst
anyone of us.

The camp continued to receive visits at least once a day and
sometimes more frequently from a growing number of Abo-
rigines. Finally on 26 June a crowd of more than a hundred and
fifty had collected and an attack was made on the exploring
party, under cover of a blazing grass fire. There seems to have
been no immediate reason for the attack, but undoubtedly some
of the Aborigines would have experienced the deteriorating
relations at Escape Cliffs and they might have seen the possi-
bility of some easy plunder. A few rifle shots soon drove off
the attackers, but the Europeans did not venture out of the camp
area again. A message was cut on a tree for the information of
any search party and a bottle buried containing an account of
the expedition and a farewell letter from McKinlay to his re-
cently married wife. Another day's work saw the punt almost
ready for launching.

Thursday, 28th June.—Today the punt was turned over and
the hides were put on and laced on to the top rail with strips of
hide and our heavy canvas tent, which I had often tried to per-
suade McKinlay to abandon, laced in a similar manner over the
hides. It was fortunate that he never took my advice as the hides
were so frail that they would have given way as soon as they
became soaked in the water. The oars were made of small
saplings with wooden pieces of the pack saddles pegged on for
blades. A steer oar was a sapling chopped thin at the blade. We
stepped a mast and made a sail out of one of the calico tents
and some canvas bags to carry water for drinking. We could
not finish it in time to launch at high water. As the bottom was
too frail to bear our weight in moving about I had some small
whip stick saplings cut and laid them all over the bottom with
one crosswise at short intervals nailed down with horseshoe
nails to keep all in place and some paddings from the pack
saddles on them. For a lead for sounding I bent an eye in a
piece of round iron tapered to a point at one end which had
been used to hammer horseshoe nails when shoeing, thus,

with a piece of tent cord made an excellent lead and in case
we should have to bring up at any time, filled a pack bag
with the old horseshoes and the iron from the pack saddles
and tether rope for an anchor. Everything is now ready for
launching at high water in the morning. Some of the men are
anxious and others dread the water. I tell them it is a pull for
life and the best energies of all are required. We have suffered
much, latterly the want of salt and fat has been much felt, a
piece of salt suet would be a great treat to all of us. We are
rather a disreputable looking crew, anything but presentable.
We have 850 lbs. of jerked horse which we shall have to eat as
it is, as there is no means provided for cooking it. Weather con-
tinues foul.

Friday, 29th June, 1866.—If Providence permits us to reach
civilization again this day will not be forgotten. We successfully
launched our punt without accident at 10 a.m. Put all on board
we intended to take and threw everything else into the river. It
seemed an awful pity to cast fine saddles into the water and a
fine expedition ending in such a disastrous failure. The last act
was to shoot two dogs who were the only ones to survive. The other five had at different times remained behind and I suppose died from exhaustion. It seemed cruel to destroy them, but we could not take them with us. At 11.15 a.m. we commenced our voyage on the first of the ebb tide. The punt leaked and kept two bailing with a pannican, but as the canvas gets well wetted it will take up. As we pushed off the men’s faces wore rather a melancholy look. There was no cheer nor anyone to wish us ‘bon voyage’. The men were divided into two watches of an hour each, the oars were manned and I took the steer oar, and commenced a survey of the river by compass bearings and estimated distances. On starting, before and within hearing of all I said to McKinlay, ‘I want you to note that we are going down the East Alligator River.’ McKinlay replied, ‘If you continue to think so, you are very verdant.’ The bushmen are very awkward with our very awkward oars, which gives me plenty to do to keep her steady in the current. The natives followed us some distance down the river. The river continues its westerly trend. Late in this afternoon we came to the rocky ridge which I had observed from near the camp and breaks off at the river which passes west of it as I thought. Some of the rocks stand out from the banks into the river. On the opposite bank a large tributary joins and has formed a large sand berg in the middle of the river, on which I saw some birds. The sun’s rays were glittering the water so that I could not see which side to steer. The current was carrying down 3 knots an hour and I found the water shoaling rapidly and unevenly, one cast giving two to three feet and the next 18 inches. If we touched any rock or the bottom, it would be a case with us, so I jumped out, at the same time calling upon others to do the same to try and guide the punt. But we soon found we could do nothing that way, so I called them all on board and take to the oars so as to give me steerage way and make a dash for it. Luckily I managed to escape the rocks and the sand berg and was relieved when we got into deep water. It was a narrow escape from wreck. Generally 3 or 4 crocodiles followed us, but when they approached too close a shot from a carbine increased their distance. We had to anchor during the flood tide. Our water bags leaked during the day and we were without water, the river here being salt at all times of the tide. Exposed to a bright tropical sun without a drink did not improve our condition. We brought up at a likely looking place near sundown and luckily found water in a shallow paperbark swamp about a mile away. We had supper and set a watch for the night, especially on our boat in case of crocodiles should be attracted by the hides covering the boat. At 7.33 p.m. I obtained an observation to the star Arcturus, which gave the latitude 12.7.41S, and then tried to get a little sleep.

Saturday, 30th June.—All were up before daylight filling an airbed, which had been brought to assist us to float over unfordable rivers if it had been necessary. It took a long time to fill through the small valve, but it held a good supply without leaking. Also filled our canvas bags for present use. I find the river broadening out in fine reaches and pointed it out to McKinlay and asked him if he was now satisfied that we were on the East Alligator and while talking we saw some porpoise a long way down the reach. He would not then give in but remarked, ‘We will see further on.’ I told him we should not see porpoise far from the sea. The river here was about a mile broad and widening. We got under way at 10.25 a.m. with a smart breeze right down the reach. We hoisted our sail for the first time and went spanking along, got soon into a choppy water which made our craft creak and twist a little. A small peak we had passed bore from us 113° 30’ and the highest point in the low rocky range passed yesterday bore 109°. At 0.45 p.m. were abreast of the fresh water river shown on the chart and at 2.45 p.m. were abreast of the point forming the western entrance to the river which was here about 5 miles broad. I named this point Cape Farewell. We were now fairly at sea. I shaped a course between Field Island off the mouth of the South Alligator some miles. Abreast of the eastern side of the river mouth shortly after 1 o’clock at night and although very dark observed that the strong ebb was carrying us back although we were pulling hard. I told Young to get a sounding and found only 10 feet with a muddy bottom. As it was only half ebb I said, ‘Let her drift a little into deeper water,’ when McKinlay woke up
and said, 'What the devil for? We only draw about 6 or 8 inches.' I told him that I had ascertained the time of high and low water and that we should be aground in an hour or so. Then he displayed his gross ignorance by saying before the men, 'How do you know? You were never here before,' but during the argument we had drifted into 11' 9" when he said to Young, 'Put the bag over. I won't go out any further,' and it was done. Just before daylight we were laying on the bottom, soft mud, in three or four inches of water. It is very sickening to be with a man of this kind. The muddy shores in many places have oyster reefs as sharp as knives. If we had settled on one of these, we should have been lost. The shores here are shallow mangrove flats. Last night I got a cold in my right eye. It is now very much inflamed, using it through the night has not improved it.

According to McKinlay's account, Edmunds has run together the events of 29 and 30 June under the heading of 29 June, and transferred the events of 1 July to 30 June. He then has no entry at all for 1 July.

Monday, 2nd July.—I suggested to McKinlay before daylight that we should hang on here until the last of the flood tide, run up the river with it and down with the first of the ebb to avoid rough water, and he agreed. But soon after, one of our sailor men, Tuckwell, came aft and said, 'There is a splendid fresh breeze coming right down the river. If we hoisted the sail it would counteract the flood tide.' I said, 'No, we have arranged what to do. You look after the other end.' McKinlay took Tuckwell's view and said, 'He is right. What do we want to go up the d—d river for? We have had enough of them. I have if you haven't.' I pointed out that this was wind against tide. He replied, 'Oh, Hell! We'll try it. He is a sailor and perhaps knows as well as you do.' So anchor was weighed and a start made before sunrise. We were not long before we began to see the mistake and at about 3 miles in a very nasty rip, expecting to go to pieces every minute. Seas broke into the boat and there were various exclamations such as 'My God! Another sea like that will send us to the bottom.' The oars were double banked and the wind increased to a very strong breeze. We however got 'Craft built by Mr R. H. Edmunds as it lay at Escape Cliffs. Photo by Lieut Guy RN', 1866. One of the men is said to be C. Hulls.
The arrival of McKinlay and party at Escape Cliffs, 1866. There were in fact fifteen men in the boat, which is that shown in previous plate. Artist unknown.
over it safely. The river mouth is fully 5 miles wide. It was a great relief to me, and I was pretty nearly done up steering, trying to keep her up to the wind. The mouth of the West Alligator we crossed during the afternoon some miles seaward of it. Our landsmen are, although better, still very awkward pulling and McK's words to some of the men not choice. So I relieved Hulls from 6 till 8.30, getting him to pull with me now and again, and then being dark, I relieved Tuckwell at the steer oar till one a.m., steering well into the bight of the bay about 28 miles across. In giving Young instructions how to steer as above while I tried to get an hour's rest, McKinlay woke up and wanted to know what I wanted to go into the bay for and told the man he had better steer right across. This was stupid interference, if he had only noticed for a month or more that the morning breeze commenced from the south each morning strongly and followed the sun, veering easterly until it approached the meridian. Thus by steering well into the bay we should have a fair breeze and relieve the men at the oars. He however thought Young was following his instructions, but he was not. The only compass we had was a prismatic which they could not understand, nor could I see at night without striking a light. I knew the position of certain stars and he steered by them. My eye is very badly inflamed.

Tuesday, 3rd July.—The morning opened with a fine moderate breeze which enabled us to hoist sail and relieve the men who had been pulling all night in spells of an hour each. The wind increasing to half a gale at 10 a.m. as soon as we made the point we downed the sail and double banking the oars, pulled dead in for the shore. But in spite of our hard work, we were blown about 8 miles to sea before the wind slackened and we were pretty well exhausted and we suffered greatly from thirst. The water in the air beds became so impregnated with the rubber or vulcanite used in its manufacture that it was impossible to drink it. Under a tropical sun and the glare of the sea, our condition was deplorable. The lumpy water we got into rather astonished McKinlay and now he wanted to follow the coastline. The hides now began to stink so badly that one could not exist below the gunwale and sharks and saw fish played
about us too much to make matters at all comfortable, especially
at night. They either grabbed or ran against the oars and sent
the man spinning several times. I now shaped a course so as to
go between an island lying west about 2 miles off Cape Hotham
with reefs extending a considerable distance all round it. Our
boat is getting so rotten that I am afraid to venture outside for
fear the morning breeze will carry us out to sea and into lumpy
water again. I am afraid she would not stand another buffeting.
I am astonished how she has withstood what she has. We kept
along all night with nothing to disturb us except the sharks
whose fins above the water made phosphorescent tracks all
round us. My eye is still bad. I bathe it as often as I can in the
sea.

Wednesday, 4th July.—I hope today to reach Cape Hotham.
We cannot eat the sinewy dried meat without water. We wash
our mouths with it and take agulp which gives a nasty and
peculiar feeling in the throat, and chewing the meat it jams
between the teeth and makes them ache. We are all getting very
weak. Tuckwell, one of our best men and a seaman was taken
bad this morning. He could not rest on his rump bones or
elbows, knees or any prominent bone. Poor fellow, he would
not give up if he could help it. The strong current carried us
over a sunken reef very plainly seen in the clear water which
rather startled me. I think they extend further south of the
island than the chart shows. However we got over safely, but
had to bring up at 7.30 p.m. for about an hour and a half. The
tidal current between the cape and the island runs like a mill
race during the early flood. There is a reef extending from the
cape in a curved form for about 3 miles. I am afraid to go out-
side it but as the tide rises here about 20 feet I ventured over it.
Keeping the lead going, we crossed it soon after midnight in
fairly good water.

Thursday, 5th July.—Early in the forenoon I pointed out to
the men the blue outline of Escape Cliffs. It seemed to the poor
fellows too good to be true and they asked was I certain, and
on telling them there was no mistake, then they talked about
what they would do, such as, ‘Let me get alongside a loaf of
bread I'll astonish them’, ‘If they have nothing cooked, I'll eat
the jolly cook’, and so on. About 10 a.m. we pulled in for some
blacks in canoes fishing. It took a lot of persuasion to get them
to come alongside. We understood that they were camping at
or near the settlement and they spoke of Mantoni (Manton),
Dicka (Watson) and others. There was a lot of natives on a
sandy patch and an opening in the mangroves. McKinlay tore
a leaf out of his notebook and wrote, ‘On board the “Pioneer”.
Will be at Cliffs in about an hour. Please have dinner ready’;
folded it and gave it to one of the canoe men to get it taken up,
which they did but did not deliver it. But they made such a
commotion that it brought out John Davis and others to see
what was the matter. Seeing a black with a clean piece of paper
folded, took it from him and read the above. This puzzled them,
no-one dreaming of us coming to the settlement by sea. Then
some supposed it was a wrecked crew and all sorts. We arrived
soon after 11 a.m. We were hidden from view until within a
few yards of the Cliffs by a high bank of mangroves. It was a
fine sight to see whites and blacks on the edge of the Cliffs, the
blacks with spears poised thinking us enemies and some on the
beach below the Cliffs who rushed into the water to help us in.
Directly the punt touched the beach it literally fell to pieces. It
could not have lived another night at sea. We mounted the
Cliffs and Dr Milner ordered us a glass of porter each. Some of
the men from excitement could not speak. We were all nearly
used up. I had no rest whatever for the past three days and
nights and did not now feel sleepy. Some kid chops were cooked
for us, but instead of eating a loaf, I don’t think many ate more
than an ounce or two. After another drink, I had a smoke, a
luxury denied me a long time. Everyone was exceedingly kind.
I learned that the ‘Beatrice’ had waited 70 days off Cape
Hawkesbury and the Liverpool River, that she had returned to
the Cliffs for another 50 days stores and had returned to cruise
between that and the Roper River.

When his party had sufficiently recovered, McKinlay filled
in a little more time with a boat voyage to the west, this time in
a rather better boat. Edmunds was most reluctantly persuaded
to accompany him. They failed to reach any definite conclusions
about the best site for a capital, and returned to Adelaide with Howard in September.

By this time there had been a bewildering number of short exploratory trips by various people from Escape Cliffs. All condemned the original site, but no one could suggest any obviously better, though Port Darwin was considered a possibility by some. Thoroughly discouraged by all this depressing information, the government at last ordered everyone back to Adelaide, leaving behind all buildings and those stores not immediately required. Everything was still remarkably intact when Cadell visited the site nearly a year later, but the site still lies deserted today.

Further reading. Howard’s report was published as South Australian Parliamentary Paper no. 79 of 1866–7. McKinlay’s account of his activities are to be found as Papers nos 82 and 82A of the same year. The Libraries Board of South Australia is preparing a facsimile edition of these two papers. The extracts by Edmunds are from an unpublished manuscript of his in the South Australian Archives, headed ‘The Settlement of the Northern Territory by South Australia’. It appears to be mainly a fair copy of his actual journal. The best account of the Escape Cliffs fiasco is in B. Threadgill, South Australian Land Exploration: 1856 to 1880 (Adelaide, 1922), but it is a topic inviting a much fuller treatment by historians.

8 The Last Voyage of S.S. Ellengowan

Alfred Searcy

The passing of the era of initial exploration and settlement in northern Australia did not see the end of the danger and adventure, particularly for those men whose work, whether private or in the service of the various government administrations, took them away from the comparative comfort of the towns. At first sight it may seem strange that a Customs officer should be among such men, but at a period when virtually all transport of goods in and out of northern Australia was by sea, and when the Australian colonies were erecting tariff barriers between each other as well as against outsiders, the work was rather more demanding than it might seem.

Alfred Searcy (1854–1925) was born and brought up in South Australia. After a few years as a young journalist he joined the Customs Department in Adelaide in 1873. In 1882 it was decided to extend the full South Australian Customs regulations to the Northern Territory. Darwin had had special tariff regulations since 1880 and for some years before that had been a free port. Searcy volunteered for the position of Sub-Collector, to be in charge of the new arrangements, and he seems to have fulfilled his duties with considerable dash and efficiency. In particular he organized the collection of licence fees and duties
from the Macassans on a series of adventurous voyages which he clearly enjoyed immensely. After fourteen years in the north, he was compelled by the ill health of his family to return to Adelaide where, as an official in the Parliament, he wrote up his experiences on the back of address slips to members of the House. These were published in various forms, but the fullest and most reliable is In Australian Tropics (London, 1907), from which the following extract is taken.

LAST TRIP OF THE S.S. 'ELLENGOWAN'
A HAZARDOUS VOYAGE

On June 20, 1886, I started on a cruise which certainly for discomfort, excitement, danger, and hard work beat any other trip I had on the north coast. Information had been received that a ketch called the Budgeree, with a large cargo of stores, had left Thursday Island for Borroloola, M'Arthur River, without having first cleared at the Custom-house. In fact, the master had defied the authorities. So I took advantage of the first trip of the rehabilitated steamer Ellengowan, which was under contract to carry mails to our gulf ports, to try and catch the ketch and bring the master to justice. The clearing out of the ketch from Thursday Island, in conjunction with the fact that the man I had arrested at the M'Arthur River the previous year had reopened his store, made things look a bit suspicious. I had with me Mr. H. Pinder, in case there was any navigating to do, as he held a mate's certificate. Among the passengers was the late Corporal Power, officer in charge of the native police at the Roper.

The Ellengowan, a steamer of some 30 tons net register, was built in Christiania about 1866. For some time she was employed on the New Guinea coast in connection with the mission work. Somewhere about 1880, the vessel was bought by the Sugar Company on the Daly River, but almost immediately afterwards she was wrecked in the river, where she remained for about four years. The steamer was eventually raised, and purchased by Mr. C. S. Copeland, who had her overhauled, and he and others thought she was thoroughly repaired.

1 The most useful maps for this chapter are on pp. 10–11, pp. 170–1 and p. 172.

If my readers will take the trouble to follow the experiences of the steamer during her forty days' absence from Port Darwin, they will realise that it was hardly possible for a vessel to be in a greater howling mess than the s.s. Ellengowan was. The worst feature of the case was the fact that most of the trouble might have been prevented if honest labour had been put into the work of repairs. There can be no doubt the engineer who passed the machinery, and the master mariner who examined and passed the hull, did their work, to say the least of it, in a most perfunctory manner. I had a sort of presentiment that the voyage was not going to pan out well, so I did what I never did before or since prior to starting on a cruise, I arranged all my private affairs as far as possible in case anything untoward happened.

Upon the strength of the reports by the 'experts', Mr. Copeland accepted the contract to carry mails to the gulf ports. One strange thing about the machinery, when the steamer was raised and the mud cleaned out of her, was that it was almost as bright as the day the vessel went down. There was something good in Daly River mud apparently. The preliminaries prior to starting were not encouraging. The first engineer engaged filled the boilers chock-a-block with water, then lit the fires. The fact was discovered in time, and the engineer got a passage ashore. After great difficulty the owner succeeded in engaging two men as first and second engineers, and two splendid fellows they proved. But for their untiring energy and watchfulness, and the seamanship of the master (Captain Macredie), none would have been left to tell the tale. The engineers' names were Ben Griffliey and Shaw. Griffliey, the chief, was nearly stone deaf, he having lost his hearing while in the Arctic regions. I think he served under Captain Nares. Just before we started it was found that somebody had forgotten to withdraw a plug of wood from a valve hole, or whatever it is called, in the bottom of the steamer. A man dived underneath and fixed that properly. When we finally started soon after daybreak, there was a light south-east breeze, so it did not come home to us that we were like a half-tide rock on account of the boat being so deeply laden. As hour after hour passed away, and we
merrily logged off our seven knots an hour, we congratulated ourselves on the satisfactory state of affairs. We expected to have a quick trip; but alas! the ‘best laid schemes of mice and men gang aft agley’, and so it was with us. We passed the Vernons all right, but when we reached the open water on the other side we found the wind had increased to a regular gale, and raised a short choppy head sea. By the actions of the chief we noticed that everything was not running as smoothly as we could wish. However, nothing very alarming occurred until five in the afternoon, when we were well on our way to Cape Don. Then the engines stopped short, not to go again until repairs had been effected. We were lying exposed to the full strength of the south-east gale and the heavy sea raised from the full depth of Van Diemen’s Gulf, with the coast of Melville Island under our lee.

All night long we were at the mercy of a raging, relentless sea. We were gradually set into the coast of Melville Island, and if we had struck there it would soon have been all up with the steamer. It was not an inviting prospect, for if we were cast away, the chances were small of any one reaching the shore through such a surf, and then again the outlook of any one succeeding in getting ashore was not cheerful, for... the niggers on the island were fierce and treacherous.

The engineers were at work all through the night. Some of us passengers assisted by holding them up while they were at work, for the rolling and tumbling of the steamer was terrible in the extreme. The machinery having been screwed up, packed, washers inserted in many places, and some portions lashed together with wire and rope, it was at last supposed to be in a fit state for another try. I am not exaggerating.

The great thing that troubled me during the night was hunger, so at daybreak, when released from my position as a support, I crawled to the locker where some tucker was kept, and with my sheath-knife yanked off a great chunk of ham and of bread, and having jammed myself in between two skylights proceeded to consume the provender. The skipper, catching sight of me, exclaimed, ‘You are — well all right.’

One great roll the steamer made threw a tin of castor-oil into the chief’s face, a quantity of the beastly stuff going down his throat. He had a bad time for a bit.

Soon after daybreak the engines were going once again. Until 3 A.M. next morning we hammered away trying to get round Cape Don, during which time it was necessary to tighten up things in the engine-room several times.

Finding that we were losing more by leeway than we made, the boat’s head was put in the direction of Cape Hotham, the nearest shelter. This was reached about 8 P.M. on June 21. The engineers made a thorough overhaul of the engines, etc., and we found among other defects that the machinery had not been properly fitted and keyed. The whole of the bearings had too much play. Some of the bearings of the shaft had never been bolted down, nor had the donkey-engine been fastened to its bed. The forepeak we found to be nearly full of water, which came through an opening in the plates. These we tommed down, and made water-tight. There were several rivets missing.

In the face of all this we might reasonably have returned to Darwin, but we decided otherwise; and, as repairs had been effected, a fresh start was made. From this time until we reached the Roper, fourteen days afterwards, it was one incessant tinkering and repairing of some minor defect in the machinery, while at least every twelve hours we had an absolute stoppage owing to the giving out or breaking down of some more important part of the engine. For the first two or three days we accepted the position cheerfully enough, cracked jokes at any one’s expense, taxed one another with having forgotten to pay the washerwoman before starting, or with being the Jonah who was causing all the trouble. Then as the days wore wearily on, some of us felt very much inclined to cast lots to see who really was the Jonah and cast him overboard, but doubting the presence of whales on that coast with sufficient capacity to entomb any of us, the idea was never put into practice.

So as not to be too far from the land in the event of some irreparable accident happening to our very erratic engines, or to the well-worn hull that carried them, we kept close inshore,
making the course as short as possible by steering from head-
land to headland and not coasting all the bays we passed. The
first night out we lost nearly all the lubricating oil. The balance
was soon used up in the engine-room, all the kerosene having
been taken possession of by that department. Of course we
were living on tinned meat, but before we had a show every
bit of fat was rendered out of it for the engines. The same
thing happened with the sardines and all the tinned butter. I
subsequently remembered that there were two cases of axle
grease in the cargo. These were quickly dug out, and the con-
tents used after having been mixed with the kerosene. It was
not by any means an ideal lubricant, but having nothing else
we had to use it.

On the night of June 24, when many miles off the land, the
steamer having drifted out owing to a breakdown, it came on
to blow a vicious, bitter gale from the south-east, and raised a
heavy sea. The engines once again being persuaded to go, we
headed for the shore. At 2 a.m. the skipper called me on deck.
What a cheerful outlook it was, to be sure! The night was
intensely dark, the bitter south-easter right in our teeth, with
driving rain, and our old boat wallowing about, creating a
mass of white foam all around her. The decks were constantly
awash. When I reached the skipper he yelled in my ear, 'It is all
up with us, we cannot make the land.' I might mention that we
were nineteen all told on board, ten of whom were Europeans.
The skipper and I settled that at the first sign of foundering
the Europeans were to take possession of our one small boat,
and in it to try and weather the gale. If the worst came to the
worst it meant a fight for life, and probably bloodshed, so I
saw that my revolver was in good order, and kept it at my belt
the rest of the night. However, it was destined that such a
contingency should not arise, for the engines held together
sufficiently long, and the gale taking off a bit, we managed to
struggle under the land at the Blyth River.

All this time the pumps were at work, for this iron steamer
was leaking badly. The engineers took advantage of the spell
and tied things together again. Our fresh-water supply being
nearly exhausted, a party landed to search for some, but did
not succeed in finding any.

We made a fresh start at daybreak on June 26, intending to
run through Brown Strait. Owing to the south-east wind and
heavy sea this was not deemed safe, so a course was shaped
for Cape Wessel. Keeping well under the lee of the islands for
shelter, we passed the cape soon after midday on June 27, and
then felt the full force of the wind and the accumulated
strength of the long rolling waves which had gathered force
in their passage from the other side of the Gulf of Carpentaria.
The result was that our engines at once refused duty, and we
lay there, tossing about at the mercy of the wind and waves.

Amongst our passengers was one whom I will call the 'selfish
man'. During all our struggles he never once offered any as-
ance, and would collar any man's tucker to save himself the
trouble of getting it himself. When we broke down off Cape
Wessel, where the steamer rolled so badly that it seemed she
would turn turtle at any moment, I made a snug place where
I could jamb myself while I fed. I then crawled to the locker
and secured some tucker. Upon my return I found the selfish
man had taken possession of my snuggery. It was just what I
wanted—an excuse to use strong language to somebody. I doubt
if the selfish man ever before had heard such a variety of
elegant names and phrases. I wound up by threatening to chuck
him overboard if he did not shift promptly, and I was in such
a towering rage that I believe I should have attempted to put
my threat into force if he had not done as requested. Repairs
had hardly been effected before the eccentric broke, but the
engineers connected the other one, so we were able to keep the
engines going. There was the disadvantage that we could not
go astern, but had to keep moving ahead. By this time our fresh
water was just exhausted. We discovered that one of the tanks
leaked, while the wretched cook had been extravagant enough
to boil the spuds in fresh water. We accordingly resolved to put
into Melville Bay (Gulf of Carpentaria), where I knew the
Malays had a camping-ground (Limba Pandria), and get a
fresh stock. On June 28 we anchored in the bay, but not at the
camping-place. We were not able to pull round to it on account
of the strong wind and heavy sea. However, we were lucky
enough when we landed to strike good water, apparently

Limba Pandria is a corruption of the Macassarese, Lembana Panrea or
the Tradesman's Bay. See p. 183.
permanent. As fresh nigger tracks were very numerous we kept a sharp lookout, but we did not catch sight of any aborigines. As the engineer feared our stock of coal would not last much longer, it was decided, when we started on June 29, to shape a course inside the islands, so that we could have a little protection, and if necessary seek a sheltered spot and cut firewood. Soon after starting, our cranky old engine jibbed again. We had to keep clear of the land, so there we lay with a nasty sea and thick heavy weather, drifting to leeward, while the engineers were straightening matters for another start. Repairs were effected at daylight on June 30. We kept going nearly all day, and then something else went wrong—the air-pumps and piston-rod this time. We managed to get under the land, and anchored off Chasm Island. The engineers were busy all night and part of the next day repairing, and we made a start about midday for Connection Island, inside of Groote Island, where we anchored at sundown. That night I had a great haul of fine red schnapper. Our water was finished, so we landed on the island next day (July 2) to hunt for some, and at the same time to cut wood. By digging we found a little fresh water, but it was thick and muddy. We kept at the wood-cutting all day.

I noticed some very pretty orchids on some of the trees, but had other things to attend to than go botanising.

The intense heat and the bad water did not make things cheerful. Then we had to get the wood into the boat, which was not pleasant work. The island was surrounded by a coral reef, and there were some hundreds of yards of this to walk over. Then we had to wade out into the water on account of the surf. It was awfully hard work, and the coral cut our boots to pieces. While we were on shore the cook's galley caught fire, but before much damage was done the flames were got under.

The selfish man again became apparent. He would not cut or carry wood, nor dig for nor carry water, but simply loafed. It was dark when we again reached the steamer, weary and worn out, but ready for our food, for we had not had any during the day. Fish had been cooked for supper for the shore men, but the selfish man had made such inroads that we had to go short.

Another start was made that evening. We shaped a course for Maria Island, on the mouth of the Roper, and next morning reached the little bay where the Springbok discharged some coals in 1871 or 1872. To our great delight we found that the coal, which had lain for some fourteen years exposed to wind and weather, shine and storm, had in no way deteriorated. We set to and shipped about five tons, having to carry it down to the boat in brandy cases. It was nice sort of coal-humping. Snakes and centipedes seemed to appreciate that coal heap as a dwelling-place.

On the morning of July 4 we stood across to the mouth of the Roper, and with the assistance of Mr. Pinder, who I have mentioned had been on the river for some time in the Young Australian, we speedily found the channel, entered the river, steamed twenty miles, and anchored. The engineers immediately commenced to repair the usual damages, besides which there was something wrong with the shaft. Next day we steamed up the river until within about three miles of the Wilton. We ran on a sandbank, which convinced us that being in a steamer that could go astern was rather an advantage. Wekedged her off all right, however. Next day the steamer was taken up to within four miles of Leichhardt's Bar to discharge cargo. We were here four days discharging and repairing damages.

The delight of being able to revel in an unlimited supply of fresh water after many days of pickle was something to be remembered.

The bunker lid being off one day, I saw daylight through the ship's side for a space of over a foot in length. This could only be stopped by building a trough and running cement in. Whenever the steamer stopped we could hear the water running into her from the stern gland. Several sore places were discovered, but by dint of keeping the pumps going we managed to keep the boat fairly free of water.

During that time I stopped principally at the shanty at the Bar, where there was plenty of life. A constant stream of overlanders, comprising good honest men, brumby hunters, cattle duffers, horse thieves, and nondescript outlaws, were passing
through, it being in the height of the Kimberley rush. One of these, Mr. Hugh Fraser, took telegrams from me to the Elsie for Port Darwin, to ease the minds of our friends, for we were twelve days overdue, and owing to the constant stream of people, word would quickly have reached them if we had arrived at the Roper. Police were stationed at Mount McMinn, and the store was now licensed, so things were not exactly the same as when I previously visited the Bar. The old storekeeper was dead, and another reigned in his place. I saw Fraser buy six tins of curry powder; when he had departed the storekeeper told me the contents were rotten—cheerful for Fraser when the time came for him to make himself a nice savoury curry. The storekeeper, who thought he had done a smart thing, was a kind of mean beggar. In fact, he was the selfish man I have referred to. I remember him in Darwin once entertaining in one of the hotels a lady passenger by one of the China boats. On his asking what she would have, the lady replied, 'I think I'll take a glass of wine.' The mean man, who was Scotch, rejoined, 'I'll no' shoot champagne.' No backblocker would have behaved as he did...

Having done all we could to the steamer, a start was made for the M'Arthur on July 11. We were brought up short by running on a shelf of jagged rock near the Wilton. If this had happened a length ahead it would have ripped the side out of the steamer. We floated off at high-water, and resumed our voyage. However, we were on discoveries bent, for that same evening we ran on a sandbank where the chart showed three or four fathoms. We tried hard but unsuccessfully to get the steamer off, and had to wait six days until the tide floated us off.

During the time the Ellengowan remained aground in the Roper our position was extremely uncomfortable, for owing to the very sharp lines of the vessel, she lay on her bilge at an angle of forty-five degrees, and everybody had to crawl about on hands and knees. We sat on the outside of her to have our meals. The master, to occupy the minds of the crew, I suppose, started them chipping the sides of the vessel. One chip was sufficient, for such a flake of rust came off that it seemed as if the whole side would follow.

Before we left the landing, where all the cargo was lying, by some mysterious means a case of preserved meat found its way on board. If it were ever missed, no doubt somebody else got the credit, for there were plenty knocking about who deserved it. It may have been the English swear words, used by the Chinese cook when he fell down the cabin steps with that case on his shoulder, that caused the meat to go so quickly, for go it did. It transpired that this was all there was on board, so we were soon on the short commons of tea and flour. We made repeated excursions ashore, but had poor luck with the game, which was very scarce for some reason at that time. Our bag was one kangaroo, a native companion, and several pigeons.

To get within shot of the pigeons I had to work my way through a belt of mangroves, and then on my stomach crawling for some distance over 'devil devil', or Bay of Biscay country. The pigeons were worth the work.

During one of our walks ashore we sighted some niggers, who rushed away at once. However, we managed after a great deal of bother to make friends. One old man was full of 'Bungawah Lowrie'. Captain Lowrie was in command of the steamer Young Australian which was wrecked... We were walking along, when all at once the old man caught hold of me and hauled me back, saying, 'Look, Bungawah.' Another step and I should have been on the top of an immense yellow snake, the bite of which, as far as I could understand, was very bad. It was the snake, however, that went this time, for I shot its head off. The old man immediately annexed it, no doubt thinking that bungawahs are useful at times. I did not begrudge him the snake. Bungawah means boss, captain, or chief.\(^5\)

I think one of the best fires I ever started was near where we were aground. Pinder and I were wandering round looking for something for the pot, when we struck a patch of jungle. The country adjacent had evidently not been burned for years, for there seemed to be feet of dry undergrowth. The temptation was too great, so a match went into it, and we cleared. It was a truly wonderful sight. The evening was perfectly calm, a

\(^5\) A word derived from the Macassarese, Poenggawa, meaning a leader or the captain of a ship. The derivation is ultimately from Sanskrit.
The Darwin region and western Arnhem Land (map continued over page)
wall of flame about fifty feet high rose up and it soon spread quickly, and cleared the ground for fresh growth. In country where the tree fern (Cycas media) grows plentifully, after a blaze you get a very good idea of the rejuvenating properties of fire. Immediately after it is burned you can see nothing but black posts all covered with beautiful green caps formed by the fronds of the palm.

A bamboo jungle on fire is a grand sight, and the noise made by the bursting of the hollow sections of the bamboo can only be compared to what one could imagine the rattle of musketry in a big engagement would be. Another plant to make a big blaze is the Pandanus (screw) palm. On the calmest of days set fire to a clump of these palms, and the roar and rush of the flames would make one imagine a furious gale was raging. In the dry season the vegetation is generally fired by the natives for hunting purposes. I have seen some forty miles of country in a blaze at once. This conflagration was started by the natives. At night it presented a grand spectacle. Every now and then the flames, when they struck a patch of screw palms, or ran into a dried-up lagoon containing withered reeds which towered up many feet, would soar to a great height. When out hunting we often started fires to clear the country of the grass, which generally ran from six feet to ten feet high. We were always perfectly happy when we originated a blaze, because we had the knowledge that we were too far away from anywhere for the fire to do damage.

On July 18 we steamed down the river for a bit, when it was discovered that the shaft was bent, and that the bearing supporting it had nearly worked its way through the side of the ship, and consequently had to be cut right away. The shaft being bent no doubt explains why the bearings were not bolted down in the first instance. After this little matter of detail had been attended to, we steamed out of the river to Maria Island for more coal. While at the bar a quantity of Leichhardt pine was cut and taken on board for use in the furnace. How pleased we were to find that it would not burn! It was all thrown overboard. This pine is remarkably bitter, and excellent bitter cups can be turned out of the timber.
In readiness for the coal a lot of canvas bags had been made, so it did not take us long to ship ten tons. I thought bags were better than brandy cases for carrying coal.

While on the island we saw immense numbers of bronze-winged pigeons, and that was our share of them. On the morning of July 20 we anchored off South West Island, at the newly discovered entrance to the M'Arthur.

In spite of the fact that all hope of catching the Budgeree had gone, we immediately started in the steamer's only boat, a small dinghy, with six persons, blankets, provisions (such as they were), etc., for the township of Borrooola, a distance of forty miles. To get into the river we had to carry the boat for about half a mile over a very soft mud flat. When I was at the M'Arthur previously we used another entrance, the one opposite to Centre Island. Consequently the river for a considerable portion of the way was new to me. Foolishly, we did not take the tracing of the new entrance with us, for there was one on board; so we were not sure whether we were in the proper entrance. We pulled all day long, and still I did not recognise any landmarks. During the afternoon a nigger hailed us from the left-hand bank, yelling, 'Borrooola, trrrr; Borrooola, trrrr,' and pointed in a certain direction. We were cross and tired, and would not take any notice of the black fellow; but we were sorry enough afterwards for our indifference. I recognised the man as one I had met before on the river, and a most extraordinary-looking fellow he was. If you stood at the back of him squarely you could see him looking round the corners of his head without moving. For feet he had heels only, the rest of the pedal extremities, I suppose, at some time having been burned or cut off.

We pulled on and on until 9 o'clock at night, and realising that we were in narrow waters, it came to us as a shock that we were where we ought not to be. In fact, we were bushed in Batten's Creek. There was nothing for it but to land, which we did, and hauled the boat up a little. It was decided to camp on the top of the bank. One of the passengers said he was going to walk to Borrooola. We told him he could walk to Halifax if he liked. He started into the bush, and we rolled ourselves up in our blankets, dog tired, careless of niggers or anything else. Some time afterwards we heard the steps of our mate returning, and then a crash of branches. He had apparently walked over the bank, but with great presence of mind he yelled, 'I am going to sleep in the boat.' At daybreak we roused out, perishing with cold, for our blankets and clothes were wet through with dew. The only tucker we had was a sort of bread, so seeing some 'gales,' I had a shot at them, and knocked one over. O the disgust! for not twenty yards away in the grass there had been a great flock of Burdekin ducks, which we had not spotted. My shot, however, settled the matter. I picked up my bird and soon had it in the coals. While eating it I told the other fellows if they wanted game for breakfast they had better hurry up and get some.

During our journey up the river I noticed some fine patches of Cypress Pine. I am not certain if I have mentioned the fact before, but this timber is very valuable, inasmuch as it is white ant proof—in fact, it is the only timber known which those pests respect. It is short-grained, rather hard to work, and full of resin of a highly aromatic character.

We pulled back for some hours, during which time we had a try at another opening, but it proved a cul de sac, and were just making up our minds to try and reach the steamer again, when the Malay boy cried out, 'I see schooner,' and there, sure enough, she was. Now we realised how it was that we had made such a howling mess of things. Just before reaching it on the way up, Pinder and I were pulling and Copeland steering, and to avoid a reef of rocks Copeland had hugged the right-hand shore, thus opening the broad entrance to Batten's Creek, which we thought to be the continuance of the M'Arthur. If anybody had for a moment looked up, the schooner would have been seen, but when the other side was made she was shut in. If we had only interviewed the nigger we would have saved ourselves a fifty miles pull. From where we camped Borrooola was only about seventeen miles distant. The sight of the schooner put new life into us, and we made the dinghy hum over the three miles to where the craft was anchored. This was the spot where old M'Led was camped
the year before. I immediately boarded her, put the broad-arrow on the mainmast, intimating that I seized her in the Queen's name, and with almost the same breath said, 'For God's sake give me a bottle of beer.' The beer was forthcoming, and good it was. I found that I knew the master well, he being an old Port Adelaide man. The mate was also the owner of the ketch. He only had a coasting certificate, and had to ship a deep-sea master when he left the colony in which his certificate was issued.

There was a number of passengers on board, several of whom had fever very badly. In the little cabin was a poor woman unconscious, a victim of fever. This was truly a most pitiable case. She had left her home in Queensland to nurse her daughter, the wife of a manager of one of the stations on the tablelands, through a sickness, and when on her way home was struck down with malarial fever. The poor woman died two days afterwards, while the ketch was still in the river.

After a good night's rest I entered into business, and found that the master was solely to blame, the owner of the craft being at his mercy. This, in conjunction with the fact that she had so many fever patients on board, decided me to inflict commensurate fines, covering all our expenses, which the owner gladly paid. He had to sell a large quantity of stores to raise the money. Fortunately he had plenty, and it was easy to get customers amongst the out-back people camped on the bank of the river. I must say that he treated us royally during our stay on board, and we were fit for good tucker. The day after our arrival, Copeland, a Malay seaman, and the two passengers started for the settlement with the mails. Next day Copeland returned with the Malay, and reported that the settlement was in a state of chaos, owing to the absence of police, and for hundreds of miles round the M'Arthur the district was in a state of terror. This was no exaggeration, for the crimes committed were beyond description. All the outlaws of Queensland made for the Territory, for they had nothing to fear; in fact, this country was a sanctuary for every ruffian in Australia. Just before we arrived an unspeakable crime had been committed in broad daylight in front of one of the stores. The man in charge of another store offended a mob of these ruffians, so they stood off a few yards and emptied their Winchesters into the building, regardless of the fact that a man was there. He escaped from what almost might be regarded as certain death by throwing himself on the ground behind a galvanised iron case. I was told it was a common practice for these outlaws to blaze through a store like this if they were not satisfied with the treatment they received from the owner.

It must be remembered that in these out-back places the population was entirely floating, here to-day and gone tomorrow. Numbers of the fellows, many good, honest men, came in from out-beyond with large cheques, great hardships and privations having been undergone to earn the money. That was the shanty-keeper's opportunity. Unless the unfortunate fellows were staunch teetotallers they had a poor chance of getting away until they had been lambed down to the last penny. Then they could go to Hades. Needless to say that shortly after this a magistrate and police were stationed at Borroloola, to the great satisfaction of the respectable residents and travellers.

Malarial fever was very bad on the river.

The owner had brought from the settlement for the use of our boat a quarter of beef. On account of the hot weather it was necessary to salt it down at once, which Pinder and I did, with the assistance of some station people who were camped on the bank of the river. The local residents also supplied the salt. I might mention that duty on the cargo landed by the ketch had been collected for us at Thursday Island; also that there was no connection between my man of the previous year and this craft. On the morning of July 23 the Budgeree sailed, and we made a start for the steamer at 2 P.M.

Copeland and his men were done up with their long pull from the settlement, so Pinder and I had to do the first spell of rowing. We pulled until dusk, when we landed and boiled the billy. Then came a weary pull of several hours, the night being pitch dark. We got mixed up in some of the mangrove creeks, but an occasional glimpse of the Southern Cross let us know that we were making to the nor'ard, and therefore must reach the sea in time. It was weary, weird work, the only sounds, besides the
splash of our oars, being mysterious cracking noises in the mangroves, and now and again the splash of some great brute tumbling into the river. Soon after midnight we reached the open sea, but we had no idea where we were. There was not a sign of the steamer. There was nothing for it but to wait for daybreak; so, having no anchor, an oar was driven into the mud and the painter made fast to keep the boat afloat, for we could hear the alligators wallowing and bellowing on the mud-bank adjacent. It blew from every point of the compass during the night, and heavy rain fell, so it can be imagined what a time we four had in the little boat. *Three Men in a Boat* were nothing to it. At daybreak we caught sight of the steamer some four miles distant. After a terrible struggle over the mud flats, having again to carry the boat for a considerable distance, during which journey I knocked over a couple of ducks, we finally reached the steamer, thoroughly played out. The captain told us that the barometer had fallen one inch during the night.

A start was immediately made for home. During our absence the engineers had been hard at work. Our luck seemed to have turned, for during the run home we had hardly a ripple on the water, and the steamer did not break down once. We brought a little fat from the M'Arthur for the engines. When off New Year's Island we spoke the schooner *Griffen*, but not a drop of oil could we get. We sighted a big school of black fish, which could, no doubt, have supplied the oil, but they didn't. We called in at the Revenue Station, Bowen Straits, and secured some kerosene and salt buffalo, and arrived home on July 29. Just as we were entering the harbour something went wrong with a pump in the engine-room. I shall ever remember Captain Macredie for his skill as a navigator, and the untiring dexterity and energy displayed by Ben Griffey and Shaw.

The *Ellengowan*, at the request of the South Australian Government, was inspected by some experts, and the remark of one of them after an examination of the steamer gives an idea of their opinion of the vessel. 'Good God! the idea of men going to sea in a thing like this.' Shortly after our return the *Ellengowan* was turned into a quarantine vessel, and plenty of pumping was required. Captain Marsh and the late Mr. J. H. Ser-
9 The Route of the Macassan Trepang Fleet

DAENG SARRO

About 1950 there was still living in the village of Bontorannu, just south of Macassar in the Celebes, an old man, Daeng Sarro, who could remember his trips to Australia with the annual fleet of trepangers. The following account is what he could recall of the route taken, and since the last Macassan prau came to Arnhem Land in 1907, the details must refer to a period about forty or fifty years before the account was written down. Although, from the beginning of the nineteenth century and probably earlier, Macassarese and Buginese seamen had copied and adapted to their own use European maps of the Indonesian archipelago (including parts of the Australian coastline), most of the extensive geographical knowledge of these people was derived from well remembered personal experience, as is so clearly the case here.1

The main reason Daeng Sarro came to Australia was commercial, to collect and preserve the trepang, or bêche-de-mer for sale to the Chinese. In the course of this, it was hardly possible to avoid fairly sustained contact with local Aborigines, and Daeng Sarro was probably typical of most of his companions in his knowledge of them. Long afterwards, he was able to supply much information about their way of life and even made copies of their weapons and other artefacts. It will be seen below that he remembered many Aboriginal personal and place names.

This account, which was collected by a Dutch scholar, Dr A. A. Cense, and his Indonesian associate, Abdurrahim, was originally published in Dutch as an appendix to an extremely useful article describing the Macassan voyages to Australia, A. A. Cense, 'Makassars-Boeginese Prawaart op Noord-Australie', Blijdragen tot de Taal-, Land- en Volkenkunde van Nederlandsch-Indië, Deel 108 (1952), pp. 248–64. The information about Daeng Sarro is also contained in the article. This appendix has been slightly adapted in translation and, where possible, the modern names of geographical features have been added in brackets after Daeng Sarro’s names. These geographical identifications are based partly on a list of Alfred Searcy’s, partly on names known to Aborigines today and collected by myself and others, and partly on the descriptive nature of some of the names themselves. A number of uncertainties still remain, and there is some evidence that Daeng Sarro himself made a few unimportant mistakes. Where a Macassarese name has a literal meaning, this has been rendered into English.2 However personal names (and a number of places are named after people), together with the Macassarese titles, Karaeng, Daeng, Kare and Pua, in most cases have not been translated. Similarly Aboriginal names have been left in the form in which Daeng Sarro remembered them.

THE ROUTE FOLLOWED BY THE TREPANGERS FROM MACASSAR TO AUSTRALIA AND THEN ALONG ITS COAST, AS DESCRIBED BY DAENG SARRO, RESIDENT OF BONTORANNU NEAR MACASSAR

Starting from Macassar, the route went down through the islands, past Salajar, Wetar, Kisar, Leti, Moa and then south sou’east for four days to Melville Island.3 From our point of arrival, we went on eastwards for a day to Deep Bay. Another day further on was Karaeng Mangngemba, a place which had

1 The most useful maps for this chapter are on p. 38, pp. 170–1, p. 172 and p. 189.

2 I would like to thank Dr Cense for his very considerable help and advice in this matter.

3 The original has Port Darwin, meaning the area in general.
a beautiful white beach stretching away to the east and a row of casuarina trees, and where the natives were very aggressive. Another day's sailing brought us to Ma'ne's Bay and Sandfly Bay. At both these places the native people were unfriendly. [All these places are probably on Melville Island.] Beyond Sandfly Bay, we sailed for a day to Mud Bay [near Cape Don] and then for half a day to River Bay [Tre pang Bay]. In this area, the people were peaceful and the men prepared to work on board the ships, collecting trepang in return for food and tobacco. From here, we would continue for a day's sailing to Pearl Bay [Port Essington], beyond which lay the following places, each about half a day's sail from the next: the Flagpole [the beacon on Smith Point], the Old Englishman [the deserted settlement in Raffles Bay] and the Sea Strait [Bowen Strait]. Here lived the English commandant, Robinson, another Englishman named Djong [John] who was married to a Marege' [Aboriginal] woman called Daeng Te'ne or the Sweet One, a certain Roni (son of an English father and a Marege' mother) and a Malay named Tenga.

From the Sea Strait, it was some three hours' sailing to Noisy Cape [Point David]. After that, the following places are up to a day's sailing on from each other: Djawa' Bay [Mountnorris Bay], One Day Bay [Malay Bay], Kangkong or Spinach Island [Grant Island] an uninhabited island used to replenish stocks of water and vegetables. Then we would sail south sou'east to Pandjang Bight [Aurari Bay], Waira [North Goulburn Island] a large island, then to Pua' Rengga [Brathwaite Point] a populous settlement whose chief was called Mamborona. This man's grandsons, Gammi, Buntala and Mondo, once sailed back to Macassar with me. After leaving Pua' Rengga' we sailed on to Morongga [Mooroongga Island], a large camp where we used to stay for one or two days. By leaving this camp at about three in the morning, we could reach the entrance to the Long Strait [Cadell Strait] by daylight, and here on the right, was a bay called Shell Bay, and on the left, a place called Takkerena [Elcho Island Mission], where we usually lay up for a fortnight or so to clean and prepare the trepang which had been collected. Here, red pigment was found in large quantities, and the local chiefman, known as Taradiki, was circumcised. Passing through the strait, we reached an island known as Tjampalea', after a species of shellfish [Alger Island], where turtles were found. Setting forth from here, one reached Kulira. Large ships, however, could not pass through the strait here, and so passed Kulira by. Farther to the east, one reached the island called Parku [Inglis Island or near by], known in Macassarese as Pua' Duda', with its large camp called Manunu [on the opposite shore near Cape Wilberforce], where the natives were given tobacco and strong drinks in return for tortoise-shell, bezoar stones, mother-of-pearl and horn. Going on once more, though in fact we usually sailed out and gathered trepang in the immediate area for anything from a few days to a fortnight, and sometimes as long as a month, we next came to Ruku' Bay [outside Melville Bay], where trepang gathering went on for five to ten days, and then to Mannjarranga [Melville Bay], which we called the Tradesman's Bay. Near here lay the islands known as Jewel Island, Chevrotain Island, the Sandbank and the rock Togo-togo. There was also a large camp called Kunjangara [on Drimmie Head] and an island known as Pulula.

Sailing southward from here, one reached the area known as Father Birdlime [Mount Dundas] with a place called Kornmar [Miles Island] nearby, and then Bapa' Bay [Port Bradshaw].

4 E. O. Robinson was a trepanger and trader appointed by the South Australian government to collect Customs duties and fishing licences from the Macassarese captains. He performed this annual task at his camp in Bowen Strait from late 1884 until his retirement in 1899. See pp. 24 and 178.

5 Presumably both John and Roni are two of the various trepangers and knock-about hands, who frequented the area from the mid-seventies.

6 Tingha de Haus (or de Han) was a native of Timor and originally came to Darwin in about 1872 in the service of the first Government Resident. He started trepanging near Bowen Strait about 1884, and later held a pearling licence for a lugger as well. Despite the time he had been in Australia and his good reputation, he seems to have been prevented from renewing this licence in 1899 on the grounds that he was 'an Asiatic alien'. He died in 1907 or shortly before.

7 These three names are those of various kinds of fish.

8 The Macassarese, Salla' La'bu'a, is preserved in the Aboriginal name of the area, Djelelapu.

9 See Pobassoo's remarks to Flinders on p. 68.

10 Aborigines say that this is Truant Island, but the description suggests a number of sites on the west side of Arnhem Bay.
where there was a settlement called Karkaranga. Here too, lay the island known as the Fireplaces for Boiling the Trepan [Wobalinna Island]. At a place called the Bay of Karaeng Mangngellai [Gray’s Bay], where the local chief was called Onggopa, the fleet used to stay for a month. Here there were three camps known as the Big Tamarind Tree, Renggang village and Dompu village. In Djawa’ Bay [Trial Bay], trepan was also gathered from a certain reef. Next we used to spend a fortnight on the island of Daeng Muntu’ [Isle Woodak]. Farther to the south lay the camp Father Nai’ and a narrow strait near New Bay. Then came the camp, the Black Guru, the island Batjo’ Oni [Bickerton Island], the point called the Big Stone [North West Bluff, Groote Eylandt]. The camp Waripa and Mangrove Bay [Bartalumba Bay], where my father was buried. A little further on lay Poison Island [Yaranya Island]. Farther to the east again lay Mangko’ Bay and an island called the Old Cooking Places [both on the east side of North West Bay]. Sailing northwards from here, one came to Pantjana Strait [east of Chasm Island], which was very rich in trepan. Beyond there one came to places called Songsonga, Loose Talk, Tjarap, a rocky place known as Nalìa, a rocky island called Aroro, the islands of Wandamadje [Jagged Head], Wurpulmadje and Iningalumadje [all around Jarragba (Tjarapi), a peninsula projecting to the north from Groote Eylandt], and the bay called Shark Bay [Little Lagoon at Umbakumba], where very large trepangs were found on a sand bar. Sailing southwards again, one then came to Black Fish Bay [coast at Angurugubira Lake]. Beyond this lay the island of the Great Daeng [one of islands in Dalumbu Bay], with the two places called Kare Bilu’ and Kare Toru’ and the stretch of shore called Kalotoro. My father had been very good friends with the chieftain of the Great Daeng, a man called Bangkala’, and they treated each other like brothers.

To the south of this island lay the camps of Pungondang and Father Drum [on the south coast of the Gulf of Carpentaria], and near these, along the stretch of coast known as the Leaning Mangroves, trepan was collected. From here we used to sail eastwards to the Strait of Hassan’s Father and the camp called Daenna i Si’dé’ or Si’dé’s Brother-in-law [in the Pellew Group]. This was an anchorage from which short trips were made to camps such as the Guru, the Taker of Life, Sampu Bay or Karaeng Mangngembu. Two very large tamarind trees with the name ‘i Kadere’ Daeng Makkulle’ cut in the bark of one, were used as a landmark here. After another three days’ sailing in an easterly direction, one reached a very dangerous muddy channel called the Upside Down Water [Forzyth Islands in the Wellesley Group], and there, on a sandbank, an iron box full of provisions had been left for any unfortunate seaman who might be wrecked near by.

**Further Reading.** For more information on the Macassans see D. J. Mulvaney, *The Prehistory of Australia* (in press) and P. M. Worsley, ‘Early Asian Contacts with Australia’, *Past and Present*, no. 7 (1955), pp. 1–11. I am preparing a comprehensive account of the Macassan trepang industry and its archaeology.

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11 These last two names are both those of suburbs of Macassar, Kampong Renggang and Kampong Dompu. The people of Kampong Dompu (in Macassar) originally came from Dompu in Sumbawa. There is still an Aboriginal camp in Gray’s Bay called Cumbaringa.

12 The Macassarese, Batu Lombo, is preserved in the Aboriginal name for the area, Badelumba, which is also seen in Bartalumba Bay near by.


14 This name may really apply to a place on Bickerton Island.

15 In Macassarese, Daeng Lombo, hence Dalumbu. Compare with footnotes 8 and 12.
One of the most distinctive things about the expansion of missionary effort in northern Australia has been the concentration on coastal areas. This simplified enormously the problems of transport and communication in the days before air travel, and since pastoral development had found little use for the coastal strip it meant that, in general, the missions were left to themselves. Though the coastal environment supports a relatively heavy Aboriginal population, the siting of permanent mission stations has often presented difficult problems. The normal problem of obtaining water in the Dry and maintaining access in the Wet, while not going too far from good land, has been compounded by the growth of the settlements and such unexpected factors as the proximity of a number of the new mineral discoveries.

In 1907 Bishop White of the Anglican diocese of Carpentaria sailed across the Gulf from his headquarters on Thursday Island to look for a site for a new mission on the Roper River.\(^1\) After a storm in which their lugger had to run for shelter under the west side of Groote Eylandt, the Bishop and the Reverend A. R. Ebbs, secretary of the Church Missionary Association of Victoria, sailed up the river and selected a site a few miles below the old-established police station. The mission eventually had to be moved to a better site nearby on account of the floods, but it has endured and two other Church Missionary Society missions have been founded from here, on the Rose River and on Groote Eylandt. The choice of their sites is described below.

The Reverend H. E. Warren was ordained priest in 1911 and after two years as a curate in working-class Sydney, was appointed Superintendent of the Roper River Mission. For nearly twenty years he laboured here and on Groote Eylandt. A visitor to Groote Eylandt in 1925 describes meeting him:

tying the boat to the pier, we approached the sawmill. We were met by the tall, spare form of the Mission superintendent, the Rev. H. E. Warren. He was clad in blue overalls and sprinkled with sweet-smelling pine dust... Tanned from fifteen [sic] long years of Northern residence, his hands were scarred with toil, one realized that here was a man with the zeal of a Christian martyr, and with a practical capacity rarely exceeded. His welcoming handshake and words of greeting were genuine, but one eye was on the pile of pine logs and the throbbing engine.

In 1932 ill health compelled him to move to a parish in Tasmania. The Reverend A. J. Dyer also spent many years in the north, mainly on Oenpelli Mission in western Arnhem Land.

In 1933, despite his move to Tasmania, Warren, once again with Dyer, returned to the western shores of the Gulf of Carpentaria and played a leading role in the dramatic events arising out of several murders by Aborigines in the area. The sanctioning and success of the attempts at peaceful conciliation marked a new stage in the official treatment of Aborigines, though progress only came in the face of furious argument. In the following year, while the public debate still continued, Warren died in a plane crash in Bass Strait. In 1934 also, Dyer was forced by ill health to leave Oenpelli, although right up until his death in 1968 he continued to write and give lectures about his experiences in the north.

This account by Warren of one of the many early mission trips was read as a paper, with accompanying lantern slides, before the Victorian Geographical Society in 1918 and published in the Victorian Geographical Journal vol. 34 (1918), pp. 8-17.

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\(^{1}\) The most useful map for this chapter is on p. 189.
I left Roper River Mission Station on Monday, November 20, 1916, at 7.30 p.m., in motor launch 'Evangel', taking with me Mr. A. J. Dyer, and Daniel and Umbereary (blacks), and Alec half-caste; also stores for one month, and twenty tins of kerosene. Anchored at Kangaroo Island at 10 p.m., and slept on board after prayers.

Tuesday, 21/11/16.—Left at 5.30; reached mouth of river at 1 p.m. Tide low and rather heavy sea—raining afternoon, evening and night—anchored inside until morning. Boys caught crabs for supper. Both Dyer and self feeling off colour. Mosquitoes and sandflies very troublesome.

Wednesday, 22/11/16.—Left river at 5.10 a.m. Steamed out four miles, then ran north by east. Reached Edwards Island at 10 a.m., when engine clutch jammed, and it took half an hour's work to clear it. Wind and sea now too much for us, so we put into river behind island, anchoring two and a half miles up at 12.45. After dinner walked to the lagoon one and a half miles away, and found plenty of good water there still. Blacks had pulled up the mulberry-trees we had planted there last trip—evidently to get the jam-tins they were in. Shot a duck, which we had for supper. Mosquitoes very bad. Slept ashore.

Thursday, 23/11/16.—Up at 5; left 5.10. Reached mouth of river, and stuck on bank several times, but got off and left river at 5.45, steering east by north for Rose River. After breakfast met two canoes, with about 12 or 14 men and boys in them, under full sail—said they were going to the Mission Station. Took them in tow, as we were just off mouth of Rose River. Met two more canoes. Then sent all four on ahead, while we sounded for the channel. Reached natives' camp on beach at 9.30, but after landing and speaking with all present—over 100—decided to go right into the river. Here we anchored at 10.15 a.m. After lunch walked down to see the bush houses and idols reported by Dyer, and found two rough bush houses, and in one were two idols wrapped in bark and buried. Got two boys to dig them up, which was much against their wish, and I took a couple of
photos of them. They are about 8 ft. 6 in. high—one heavy and one lighter, made from two straight trees carefully shaped oval. The one representing the female had a roughly carved face, and the larger male figure had two holes bored for eyes, and each was highly coloured and ornamented with remains of rag. There were many coloured paints on them—evidently all native material. Each had a large cross on the neck part of the image. The idols were said to have been made by a full-blooded aboriginal named Jack.

The Rose.—There is a fine soakage for one and a half miles along the back of the beach here—good drinking water and an excellent site for a small station. Walked over to the billabongs to the north of our camp, and found, about one and a half miles away, a fine chain of fresh lagoons—plenty of lilies and ducks, etc. The holes extended for miles, but can hardly be permanent, as the deepest part I noticed was not over 4 ft. The blacks have a large camp here also. At 4.30 Mr. Dyer and self each had a service with pictures. Umbereary and Rupert helped him, and Daniel and Alec assisted me. He had 34 men and I had 37 women and children; but we could not persuade all the natives to come and listen. After service I dressed some half-dozen wounds—one man's leg dreadfully eaten away; one baby seriously ill; but I could do nothing for him, as he was only a few weeks old. Dyer slept on boat; I slept ashore.

Rose, Friday, 24/11/16.—Up at 6.45. After breakfast Dyer and self each had another service with pictures—people seemed very interested. Cooked some ducks, and shot some more. Then Dyer and self went to choose a site for future house. Decided on a spot near the idol houses, 50 yards from good water in plenty; lovely soakage with plenty of ferns; ought to grow coconuts and bananas well. A little clearing will give a fine view of the sea. Boys say no floods here and no mosquitoes. The blacks use this as their favourite camp-ground. Dyer took photos of idols, and we again buried them. Back at camp 1.30. Rested till 4 p.m., when we cooked for tomorrow and Sunday. Blacks brought us a large turtle. Boys asked to be allowed to corroboree. I agreed to this, and many of the natives painted themselves. Some boys asked to be allowed to come to the station. Patched up some more sores, then slept on boat. Mr. Dyer developed photos, but all were failures.

Saturday, 25/11/16.—Got away at 6.15. Some boys are going to station in canoes, so I sent letters back by them. Promised to take more boys back with us as we return. Paid in tobacco for canoes borrowed, and left river at 6.30. Ran on till 2.15, having had breakfast and service on board, also lunch, and landed at Woody Islet at south-west corner of Bickerton Island. Here we got about 200 turtle eggs. Coral bottom here. Camp A1. Left 2.45. Ran up Bickerton Island coast, and crossed big bay on north of island to where we saw some smoke on extreme north of island. Several canoes came out to meet us, and we landed at 4.45. Camp A2. Quickly about 40 blacks appeared and sold us some turtle-shell for tobacco; also sold us a canoe for hatchet, nails, wire, beads, fish-hooks, tobacco and flour. While cooking meal, we explained our reasons for visiting them; all seemed friendly; many Groote Island men among them, easily distinguished by the cut of their beards. Boys slept ashore. Dyer and self and Alec slept on board. Used up four tins of kerosene to here.

Sunday, 26/11/16.—Had service on beach with pictures; about 30 present, and they took the keenest interest, many making comments and chattering about them. Rupert and Umbereary assisted by interpreting readily. After service I went for a long walk into the island; saw a few lubras running away, also a few children. Country all sand, with occasional outcrops. Cypress, pine and stringy-bark timber. One old man asked me to take his son back to the station, and, as the son was ready, I agreed. Lunch 1.30, then I stayed on board while Dyer went in another direction into the bush. Flies very troublesome. No mosquitoes. Plenty of fresh water. Permanent soaks just behind beach, but very poor country.

Monday, 27/11/16.—Paid up purchase goods for canoe. Two more old men came and asked me to take their boys to the station. Evidently our boys have been singing the glory of the life there. Left at 9, and took five extra boys on board; ran three miles down east coast of bay, and landed at A3, and explored
country for several miles, but found bare rock and little grass or feed. Plenty of cypress and messmate timber. Ran down to southern end of bay to Camp A4. Took Mr. Dyer to top of cliffs, perhaps 300 feet high, and gave him a swim in the natural rock baths there, 50 feet long and fed by a spring. Found plenty of fresh water, but think it may be rain catchment. Walked to the other side of island, taking two and a half hours over the mountains, and returned in less than 20 minutes through a beautiful green gully all the way. Rupert knew this track. Not suitable country for a station. Boys caught great numbers of fish to-day. Very little game. Have seen no animals and few birds.

Tuesday, 28/11/16.—At daylight Dyer and self walked across island again, through the gully, and saw many miles of good grass flats at the head of the Southern Bay, but found no water at all. Dyer and I agree that this is the best pasture country we have seen so far, if water can be obtained by digging, as is possible. Might be suitable for a station, but do not recommend a station on this land at all. Dropped the three boys we had taken from Camp A3, when we arrived again at that camp at 10.30, and then headed for Woodah Island. At 11.15 a terrific thunderstorm came up, and we had to turn back and anchor at our Saturday camp, A2. Over an inch of rain fell, and all got very wet; but we spent the afternoon fishing. Cleared up at 4.30, and we ran round to an island on the extreme north point, with caves in the rocks. Here we got quantities of fish and shell-fish. Dyer feeling very ill, and has been miserable all day. Camped ashore at A5.

Wednesday, 29/11/16.—Up at 4.30. Got away at 4.50. Steering for Woodah Island just seen in the distance. Sea calm; big swell on. Reached island at 6.30. Landed on west side at southern end at 7 a.m. Camp B1. Had service and breakfast; then went with Dyer across island—very poor, sandy country. Bad water here. Left at 10 a.m., seeing fires up coast. Touched rocks twice while leaving anchorage. Anchored at 10.30 behind first big point, B2. Went ashore with Dyer, and walked to other side—not more than 200 yards wide here. Very poor country. Left again at 11.45 and ran to next camp about halfway between big western cape and northern end of island. Camp B3. Here we had lunch, and met the old man and boy spoken of by Mr. McLennan. Dyer and self walked to other side, and found a good flat, which is evidently a large swamp in the 'wet'. Has still two feet of water in centre. Could easily be made permanent. Good flats here, with fair grass, but not very extensive. On shore at eastern side are good sandy grass flats, with fair growth of grass. Found a little creek bed running to sea from billabong, which is one large soakage and permanent good water. This would make an excellent garden, and goats and a few cattle would do well here. Bay on east side not suitable for steamers—no shelter. Dyer and self agree this is the best site for a place for a missionary to teach from we have yet seen. Left at 3.30 with the old man and boy on board for a camp reported to be at north end of island. Reached north end at 4.15, and finished fifth tin of kerosene. Could see no camp or blacks, so went round to east side. Big swell on, but ran on till we met some blacks. Put the old man and boy down, and ran on again to Camp B4, where we had been to this afternoon. Deep water, but little shelter, except from south east. Found plenty of good water. Had fish and turtle eggs for supper; then a long twice interpreted talk to five blacks—all there are on the island, so they inform us. Bought some spears and shell for tobacco, flour and fish-hooks. Dyer slept on 'Evangel', and I slept on beach. Today we named our two boys from Bickerton Island 'Bent' and 'Brown'. Calm night, but big swell.

Thursday, 30/11/16.—Up early, and got off at 5 a.m. Ran till 6.30, when we anchored at eastern cape at Camp B5. Dyer very ill through eating too freely of a fruit like a pomegranate. Went for a long walk, and found plenty of grass and good feed on a nice flat, with thousands of wild 'cocoanut' palms. Got off again at 8, and crossed to Nichols Island (Camp B6), where Mr. Dyer and the boys got some dozens of turtle eggs, while I did some repairs to the engine. Left again at 9. Steered for Burney's Island. Reached north point of Bickerton Island at noon. Big swell on—boat rolling heavily. Steered for Bustard Island, and got into channel between Connexion Island and Groote Island. Here the current was running three or four miles an hour south-
ward, and we had much trouble to get round the corner out of it. Steering north again, with many reefs and rocks showing, we had to stand well out; then steered east for the next bay. Here we found a small uncharted opening, with good deep water opening into a circular bay about one mile by three-quarters of a mile in diameter.

Here (Groote Island) we camped on a sandy beach, and anchored in 12 feet at 3.30—C1. The country is entirely different from anything yet seen—great ridges of rocks and green gullies in between. Found plenty of ferns and tree-orchids, and very large paper-bark timber. Decided to camp here today, so had lunch and supper in one. Boys got fish. Found fresh water in the rocks. Boys chose to sleep on shore, but seemed doubtful about it. Have been talking all day of wild blacks. Dyer has been sick all day; cannot eat. At 10 p.m. the boys came out to the launch in terror, leaving all their belongings ashore. They were almost speechless with fright, and could only say, 'Coolab black-fellow come up.' When I enquired how many, they stated that they hadn't seen them, but thought they could hear them. Then they covered their heads up and slept peacefully all night. It was certainly an uncanny night, the half-moon was just setting, the wind moaning in the pandanus palms, and the breakers roaring on the shore outside. Anyone might think queer things in such surroundings.

Friday, 1/12/16.—Up at 6.30. I walked round the bay with three boys. Good grass flats, excellent pasture for cattle; best stringy-bark timber seen yet, some 100 feet high and perfectly straight; found a good permanent spring just opposite the entrance; got some nice tree-orchids in bloom. After lunch I stayed with the boat, and Dyer went round the beach to the flat we noticed yesterday, and reported that much timber, suitable for canoes, grew there, but no water and no good soil. At 4.30 caught a number of fish. After supper six blacks turned up.

Saturday, 2/12/16.—Up at 5. Left at 5.15, with four extra men to be dropped in the next bay. Ran out in heavy sea, in which our canoe broke away. Landed men in next bay; then ran up the coast to the channel between Winchelsea and Groote Islands. Through this and into North-West Bay, where we ran to the southern beach, and anchored at 8 a.m. for breakfast—Camp C2. Dyer and self went for a long walk; saw many kangaroos and many miles of fine grass country, with excellent timber. Big stretches of this country evidently about here. After breakfast I went some four miles east, and found a big swamp that the boys call a billabong; but evidently it was spring country; nearly dry, except by digging, when plenty of good water was available. Shot some cockatoos. Noticed some strange birds here. Timber large on sea front, and trees I had not noticed before, and this morning they had a very steamy, tropical smell. Found native wells near beach, with ample water. One of the men we landed this morning turned up, having walked overland to tell us that wild blacks were after us. Our boys seemed very scared. No fear of any deserts while on this island. After service on beach, we took the Groote Island boy and named him 'General'. He seems to have consumption badly. Then we left for the northern end of North-West Bay. As we passed the island in the centre of the bay, the boys told me that the Malays once had a house there. Noticed several large tamarind trees about. Ran on till 12.30 when we camped in a little bay—C3. Between Camps C2 and C3 I noted two rivers. Boys said we could not get launch in, but I fancy we might have done so. Behind C3 salt pan country—no water, stony ground, little grass. Cleaned up boat, and got off at 3.15. Followed coast closely, looking for opening marked on chart, but could not find it. Boys say none here. Arrived Camp C4 at 4.50, and found good water in a spring on beach. Got into coral trying to find anchorage on island opposite; scraped bottom, but not seriously. Took us till 7 p.m. to get moored in channel again. Dyer and self went up to the top of a range of rocks here, and got a very fine view. Saw the big round mountain (Mt. Ellie) in the centre of island, and a beautiful view of little bays and islands round here. Had supper, and the boys slept on land—C5. Mr. Dyer stated his intention of doing so, too. I strongly advised him not to do so on account of what we had heard this morning.

Sunday, 3/12/16.—No blacks seen all day—seem to be few about. The four blacks we left yesterday arrived in a canoe during the night, and were waiting with turtle-shell at daylight.
Monday, 4/12/16.—At 5 a.m. filled up three bags shell grit for fowls, and left at 5.25. Umberecy asked that we call this island Advent Island, as we had spent Advent Sunday there. I willingly agreed. Took the blacks and their canoe in tow, and reached Winchelsea Island at 6.30. Left Camp D1 at 8. Explored island about there, and found it rocky and barren. Left there and landed on an island to the north—D2. Found no turtle eggs. Engine refused duty here, but soon started again. Ran down west coast till 10.30 to Camp D3. Found near here some dry billabongs and a little putrid water. Off again at 11.30, and ran down to south end of island. Country very poor. Landed 1 p.m. at extreme southern end—D4, where the Malays had a large camp at one time. Many large tamarind-trees there, and plenty of fresh water. There is also a small burial ground here. Explored a mile or two of country: plenty of water and good grass; got many big tree orchids. Found several kinds of wild fruit. Got away after lunch at 3.15. Stuck on sandbank till 3.35, when we entered the channel between the islands. At 4.50 we were abreast of Advent Island, with a heavy sea, and everything very wet. Got round north-west corner, and anchored after dark in a most wonderful bay of islands. There must be easily 100 islands within a circle of three miles. These were not noted in my chart. Boat rolling heavily all night. Camp C6.

Tuesday, 5/12/16.—Up at 5.30. Boys got 50 pounds of fish. Left at 6.40, steaming east. Ran along coast close inshore among scores of islands, rocks and sandbanks, and found that what is charted as the north point of Groote Island is only a chain of islands. Got through, and ran into Port Langdon for breakfast at 8. Camp C7. Boys ate 40 pounds of fish between them for breakfast. Had service, and got off again at 10.15. Ran on a sandbank between two small islands while heading south for smoke at lower end of bay. Got off and ran to camp at C8, where we saw the smoke. Found fresh tracks and deserted camp; barren sandhill country. Left again at 11.45, and ran round southern end of bay to a little creek, dry at low water, where we met many blacks. Camped here—C9—at 1.30 for lunch. Boys went away and returned with six blacks. After lunch I went to some springs just near, and saw acres, perhaps

This seems to be Finch Island, named by Flinders.

miles, of great paperbark-trees festooned with ferns, and fern-palms growing in endless profusion among them. This was in a marshy jungle. Thousands of pearly shells along the beach, but I do not think they have great market value. Took several photos of a deformed man. Left for a camp higher up the bay at 4 p.m., taking two cases of ferns with us. Stopped at a little creek—C10—and got fresh water by digging in the sand. Went on again till 5.45, when we anchored off a little creek—C11. Six more blacks came up after tea, making eleven here now. Have not seen any women or children on the island yet, except a few running into the bush.

Wednesday, 6/12/16.—Finished ninth tin of kerosene. Left at 5.30; ran round bay to point on north-east of Port Langdon. Took another boy on board, who professes to know all there is to know of the eastern side of the island. Struck a long sand-bank that took one and a half hours to get round. Camped at North-West Point for breakfast at 7.45—Camp C12—but did not get away again till 10.5, as the boys did not turn up. Got 75 turtle eggs and some fish. Left for southern end of island. Got round East Cape with sea smooth, and ran down east coast. Saw dozens of turtles' tracks. Let the boys ashore at C13, and they collected about 800 turtle eggs in half an hour. Ran on till 2.30, when we saw smoke, and found a beautiful spring of fresh mineral water bubbling out on the beach—C14; also two blacks who had walked across from our camp last night—C11. Between Camps C13 and C14, we noticed and remarked on most peculiar sandhills. They were a bright pink in colour. Heavy timber nearly all the way, and plenty of green grass. Had lunch on board, and got off at 3. Ran down coast close in till 4, when the boys said there was a creek, but we could see no opening, though marked on our chart. The big mountain is plainly visible, and dead west from us. We turned in, and found a channel with 10 feet of water in it and a strong tide, 300 yards from bank to bank. Ran up it for one and a half miles, when it opened into a big bay, oval in shape, and shallow, except in parts. Here we anchored at Camp C15. Fresh water in plenty by digging in sand behind beach. Boys caught many sharks and stingrays.

Thursday, 7/12/16.—Started after breakfast for the Central
Hill. After half a mile walk, we struck a fine fresh-water river, 50 yards wide and six feet deep, with cool water on surface, and water over 100 degrees temperature about three feet down, and sometimes in places too hot for the boys to keep their feet in. Traced this river three miles, and found it to be a beautiful creek 10 feet wide and fast flowing, coming from the mountains. Saw many beautiful ferns, refreshing waterfalls and beautiful fish. Walked on level country till 10.30, when we were almost at the foot of the mountain. Climbed it, and had a magnificent view. Could see the east coast, Port Langdon, North-West Bay and Bickerton Island, as well as all the centre of this island, which is barren granite rock; but all flats are heavily wooded, and there is good grass among the timber. We named this mountain Mt. Ellie, in honour of Mrs. Warren, whose birthday eve it is, and carved the name in the granite rock with an axe. Our aneroid barometer shows 600 feet. Left here at 12; arrived boat at 3.10. Got off at 3.25, and ran to river mouth at 4.20. Dyer in charge of boat. Camped for night—C16. Mosquitoes very bad; caught fish.

Friday, 8/12/16.—Left at 5.30. Got clear of river, and headed south. Finished tenth tin of kerosene. Saw five canoes full of blacks, who were in terror of our approach. We almost overtook them near a billabong, where we were to land; but they landed, hid their canoes, and disappeared into the bush. Anchored at 8.20—Camp C17—and 26 blacks appeared from the bush screaming and shouting. We did not know whether they were friendly or not; but they turned out to be willing enough to receive us, but were dreadfully afraid of Dyer and self. Had breakfast here; then a picture service for all, in which they all seemed very much interested, and made many remarks. Persuaded a young boy to come with us, and named him 'Gregory'. They took me half a mile inland, and showed me a large fresh-water swamp, but probably not permanent in a dry season. Got away at 11.20. Had lunch on board at 1.30. Ran close in round coast to extreme east of island, then south to Cape Beatrice. Wind fresh and sea rather rough. Passed Cape Beatrice at 4.30; then hoisted sail and used engine. Travelled till 6 p.m., when we anchored in a beautiful harbour, circular in shape, and about 10 miles west of Cape Beatrice—Camp C18. Had trouble with engine.

Saturday, 9/12/16.—Got away at 5.5 a.m. Heading west, passed Low Island at 6.30, and found very strong current running east. Finished twelfth tin of kerosene. Passed South-West Cape at 11 p.m. Here we ran into a heavy storm with much wind and rain; got all below, and under canvas, except self and steersman, and we came through safely, though it was a near thing once or twice. The water here is full of coral and we could not attempt to run ashore. Arrived off mouth of creek at 1.10. Entered creek, and anchored at 1.35 in a blinding rain storm; everything wet and cold. Mosquitoes very bad. Camp C19.

Sunday, 10/12/16.—Up at 7 a.m. Had a good sleep, as all were very tired. Found that the tide had fallen eight feet, and left the ‘Evangel’ high and dry and almost capsized. Another few inches would have done it. No blacks appeared.

Monday, 11/12/16.—Boys got plenty of fish. Breakfast at 8.15, after cleaning up the ‘Evangel’, and re-shiping stores, cargo, etc. Left to explore creek at 9.20. Dead low water. Anchored at 10, and walked up the creek some three or four miles—miles of the best grass we have seen; fresh-water creek is running strong, and waterfalls with a drop of six feet. Permanent water, flats easy of cultivation and irrigation by natural fall, and we believe, would grow almost anything. Yams growing wild in profusion. Both Dyer and self agree that this is by far the best place we have seen in our whole trip. Here is ample water, water power, natural irrigation, and very best timber for building, all within two miles of the sea. Found beautiful ferns and orchids and wild flowers, and got back to lunch at 12, getting out of river at 12.30. Mr. Dyer suggests that this place be called the Emerald Creek. Storm came up as we left, but we headed south for a creek we saw on Saturday. Arrived there—C20—at 1.30, and spent till 3.15 getting in. Very wide mouth, but shallow entrance. Had lunch while trying to get in. Found it extended inland only a few hundred yards, and was a salt arm of the sea. Left at 3.50, and headed north.
again. Ran till 5.15, when we entered another deep creek, but with a poor, shallow entrance. Can hardly discern the opening when half a mile away, but boys knew it. Ran up it for five miles, and camped on account of shallow water—C21.

Tuesday, 12/12/16.—Up at 5.30. Ran up river to fresh water, then anchored and proceeded on foot; found a magnificent fall of water, and big volume coming over, but probably swollen by recent rain. Signs of big floods here, high over banks, and they are 50 feet above river level. Left anchorage at 9.40, and ran down till 10, when we went ashore on a sand bank on a falling tide. All boys—nine of them—and Dyer and self got out, and dug a channel with our hands a distance of 100 yards. Then, with engine going, and all pushing, we got through, after an hour's hard work. Camped for lunch at 11.30 at mouth. Had plenty of fish. An old black arrived with turtle eggs. Got off at 1.20—just over bar—and headed north against a strong current. At 2.15 engine failed; anchored for 15 minutes for repairs. Finished thirteenth tin of kero. At 3.15 ran into a little bay to examine a creek, but found little fresh water—C22. Ran on to west cape of Groote Island, and landed the boy we picked up at Camp 23. Left again at 4.20 for Connexion Island. Sea calm—very oppressively close—storms about. Reached the island at 5. Tried three different bays for an anchorage, but all full of coral. Finally, anchored 100 yards from shore on west side of E1. Found ourselves within 20 yards of coral almost on surface. Great storm then got up before we could up anchor, and blew straight on us from south-west. Got out another anchor. Dyer and self had the roughest time of our lives from 6 till 8.40 p.m. Kept engine going till it was swamped. Umbereary and Rupert came out from shore at great personal risk to help. Umbereary got on board, but Rupert was driven back. Mountainous seas breaking over us all the time, and heavy rain and wind terrific. All very cold, but pumping helped to warm us—everything wet. At 8.40 wind and sea moderated, and we got a little sleep. At 3.30, sea and wind got up again, and made things very unpleasant; but we got boat pumped dry and engine going waiting for daylight at 5 a.m., when we stood out and faced it for Bickerion Island. It was just as much as our engine could do to stand up to it. Very heavy sea, more storms coming up: ran behind an island at 6.40 for shelter—A6. Did not get out again till after breakfast at 9. A canoe full of blacks arrived with turtle shell for us, for which we gave tobacco. The island at one end is a solid mass of coral fossils. At 9 cleared out for south end of Bickerion Island, but met terrific sea, and were afraid to turn, so had to face it. Here we pulled the bows clean out of our canoe. After securing it again, we pulled the towing cleats out of the launch, and had to leave the canoe with three boys to find their own way ashore. Ran into Camp A7, where some half-dozen blacks came to meet us; then, when canoe came up, ran to head of bay behind island—A8. Here we had lunch, and got out two anchors, as wind was terrific. Camped on island in big cave. Very windy and stormy all night.

Thursday, 14/12/16.—Up early, but went to bed again, as wind was blowing a gale. After breakfast, I gave the boys a holiday, while Dyer and self walked across the island. We started for the Eastern Bay, but the boys got bushed, and landed us on shore of the Northern Bay. Left 9.10, and arrived back 3.45, having walked not less than 16 miles. Very tired; had supper of fish. Wind dropped at dark to quiet breeze, but sea still strong.

Friday, 15/12/16.—Wind at 4 a.m. very strong, died down at 8. Got off at 9.40, and passed island at mouth of bay at 10.40, but found sea outside too heavy to face, so ran west for Woody Islet. Canoe broke away twice, so had to abandon it, with two boys in it, and orders to follow on. Shipped much water, but got safely behind island at 12.30, and anchored. We are both wondering how we did not get swamped twenty times while coming round this morning. Had lunch, then spent some time repairing engine and pump. Boys got 150 turtle eggs and some fish. Got out two anchors, and all prepared to spend a rough night ashore.

Saturday, 16/12/16.—Off at 5.50. Sea choppy. Steady southeasterly breeze. At 8 wind had risen, and we were looking for shelter. Boys told us of a river—evidently the Minnie—and
we tried to get in at 10.45, but were almost capsized in the surf, and only just managed to turn and get out again. We have had to keep a boy on the pump without stopping a moment, as, once it stops, it will not start again. Had breakfast at 11, then service. Travelling at half speed we had to tack in, as the launch will not face a beam sea. Canoe broke away twice. Swamped once, but we still have her remains towing behind. Once tow rope fouled propeller, and twice clutch jammed. Everything seemed to go wrong till 11.45 this morning, when we left the river mouth; and we had many narrow escapes from being swamped. Got through the reefs off the big point safely at 2.30, and ran into Rose River at 4 p.m., where we found a dozen blacks with a fresh turtle. We had ducks and turtle for supper. This has been the most trying day, and, to me, one of the hardest of my experience. Umbereary had not left the tiller since 5.45 this morning, and Rupert and Daniel have taken turns between watching and pumping ever since that time.

Sunday, 17/12/16.—All natives have gone to look for supper. After dinner, Dyer and self went for walk to see site of proposed new house, and found it only 150 yards from beach. To-day is extremely hot, with nice south-east breeze, and we found the little sand hill close to site we picked upon last time far better both for getting the wind and as a lookout than the flat beside it. Walked two miles to a blacks’ camp, and had service for over a score of natives. Here I saw the first blind aborigine we have met. I have met also the old man with the paralysed legs. Bought some fresh dugong, and back to supper at 9. Bed, 10. Beautiful calm night.

Monday, 18/12/16.—Up at 4. Just managed to get over the sandbanks on the rising tide, saving ten miles. Passed Edwards Island at 9.30. Finished sixteenth tin of kero. Could see clearly Maria Island from the rocky point near here. Blacks in canoes came to meet us and tell us some boys had gone on to the Station. Reached Roper mouth at 1.40, but took till 4.20 to find channel and get anchored in mouth. Got away again on rising tide, and ran to No. 1 Camp. Got some fish here for the Station; left here again at 6, and ran till 11.45, when we anchored at Long Billabong for the night. This is by nearly three hours the fastest trip of the river we have made. Finished the eighteenth tin of kero.

Tuesday, 19/12/16.—Up at 6.30. Cleaned up ourselves and the boat, and left at 9.15 with tide running up. When we came in sight of the station, we had prayer together and sang the Doxology. Tied up at station at 11 a.m. All very glad to be safely home again after a most interesting, instructive and useful trip.

Today the Numbulwar Mission stands at the mouth of the Rose River near the site selected by Warren and Dyer, though it was not founded for many years after their trip.

The story of Groote Eylandt has been more complicated. A mission station was soon established on the Emerald River site, though originally this catered only for half-caste children. During World War II an RAAF base was established near by and the mission was moved north to the Angurugu River, near Warren’s Camp C21. Another move was discussed when rich manganese deposits were discovered in the vicinity and mining was begun, but with the growth of the settlement any move is now unlikely. Warren was wise to note the signs of flooding in the Angurugu River. The flood after a recent cyclone carried away a substantial bridge.

A Stormy Crossing

The effective starting point for the impressive anthropological literature on the Aborigines of north-east Arnhem Land is the work of an American, W. Lloyd Warner (1898— ). As the result of extensive field-work between 1926 and 1929 mainly at the Methodist mission on Milingimbi, he wrote what has become an anthropological classic, A Black Civilization (New York, 1937; rev. ed., 1958). This book is a long and detailed account of the culture and society of the loose group of tribes (called the Murngin by Warner) who live east of the Blyth River and north of Blue Mud Bay. Much subsequent work in the area has amplified and amended Warner’s original account, though this retains much of its original value as a general statement, particularly in those fields where traditional Aboriginal society has modified itself under the influence of missions and other agencies.

As a balance to his generalizing account of the society as a whole, Warner has added an appendix to his book describing the ‘personal history’ of Mahkarolla, his friend and chief informant. Much of this is Mahkarolla’s own description of his youth, but Warner himself recounts their friendship and some of their experiences together and it is the account of one of these that is given below.

When he met Warner, Mahkarolla was about forty-five or a little older and a full member of his society. The account of his life makes two points abundantly clear. One is that, within the terms of his own society, an Aborigine uses his brain like anyone else. As Warner says, ‘Those who believe that the savage has a prerational mentality have not known natives intimately, either because of not being in contact with them or because of the mental barrier of scientific or religious dogma.’ Secondly and more importantly, the personalities and characters of Aborigines are as various as those of any other group of people. Mahkarolla seems indeed to have been a man of wisdom, integrity and strength. One hopes that the time is passing when the average person needs to be told that Aborigines are people.

One day Mahkarolla and I started on an expedition with two canoeloads of Murngin men. I to map clan territories, he to visit the sacred pools where his totems lived. As we sailed in the dugout around the rocky cliffs of Point Napier, across the channel from the English Company Islands, we entered almost open sea where the wind sweeps down from the northeast and Cape Wessel with terrific force. The western side of Napier’s Peninsula was quiet and calm, but the moment we rounded the point we entered a heavy, stormy sea. To go back would have risked being dashed to pieces against the rocky cliffs of the point; we had to go on—across many miles of open sea.

Mahkarolla was in my canoe. Each canoe was equipped with a small sail and a paddle used as a rudder. Along the sides the men used paddles to steady the canoe and keep it from tipping over. The dugout canoes with no outriggers that are constructed by the natives of North Australia are unwieldy and easily upset even in calm water.

As the storm increased Mahkarolla became anxious and asked his older brother, Charli Charli Sit-Down, to act as steersman. In spite of his broken back² he was probably the best canoeman in North Australia. He was entirely dependent upon

1 The most useful map for this chapter is on p. 172.

² This had been broken in a fall from the mast of a Macassan prau.
the water for long distance travelling and had become an excellent sailor. Mahkarolla distributed the other men about the boat and took charge of the sail. He placed me in the center in front of Charli Charli.

I thought the waves would submerge us or dash [us] up against the rocks, but the little canoe rose slowly over them and plunged into the troughs beyond. Sometimes the waves were so high that we could not see the sail of the other canoe. Finally, I suggested to Charli Charli that we go back. He shook his head and pointed to the rocks, indicating with a gesture that we would be swamped and killed.

The wind and waves were increasing. One man bailed furiously with a bivalve shell, for although the waves did not strike us the heavy spray filled our canoe. The natives mumbled to themselves. They were calling on their totem ancestors and their totems to help them. I said nothing and looked straight ahead. Then I started to swear in native at the storm. Charli Charli tapped me on the shoulder and asked me to stop because I would offend the Great Serpent and he might swallow us.

In gripping the gunwales I had one hand under water. Charli Charli again tapped my shoulder and shook his head. He pointed to my hand and said, ‘Bult-main-dji’ (gray shark). I pulled my hand out of the water and turned it so that the fingers were inside the boat. The day before our canoe had been struck several times by large sharks which had come to prey on a crocodile we had harpooned.

We sailed on. We had lost sight of the other canoe and wondered whether it had sunk or gone back. The wind increased and the waves rose higher and higher. We took down the sail because it was no longer possible to control it. It seemed only a matter of minutes before one of the waves would strike us and sink us all.

I called to Mahkarolla, ‘What shall we do?’ He said nothing. He did not look as glancing back. I called his name. He paid no attention. I wondered if he were sulking. This seemed unlike him, but most Murngin occasionally sulk and I wondered if he might feel that I had brought him into this very dangerous situation and blame me for it. With the foolish hope that it might be possible for us to get back to safety, I yelled again and asked if it were necessary for us to go on. He ignored me. After several more futile attempts to get his attention and some profane comment I subsided. There was complete silence in the boat.

Hours went by. Everyone remained quiet. I felt isolated and alone. The sun had gone down behind a bank of red clouds. In many of the Murngin ceremonies red clouds are a symbol of the end of things. The sea had turned blood red, ugly and morbid.

Darkness came, and with the night the waves quieted and the wind lessened. About midnight we came to a desert island lying a few hundred yards off the shore. The island was formed like a semicircular hill with one small beach at the bend. We saw a campfire on the beach and were afraid to land because the coastal and bush peoples had been fighting. Marauding bands from the interior had been coming down to the coastal country. We drew closer and discovered the party to be Murngin—the other canoe had landed safely.

Everything I had with me was soaked through except my camera and photographic material which, fortunately, were in waterproof bags. Mahkarolla and I with the others sat by the fire to dry and warm ourselves. We dried out enough tobacco to have a smoke. Mahkarolla turned to me and then said, ‘I am very sorry I did not answer you when you called to me, Bungawa3. I could not because I was crying too much. I was afraid you were going to lose your life. I thought those waves were going to tip our canoe over and you would die. I am very sorry.’

I tried to answer him. All my words seemed inadequate. However, even in my shame I knew he understood my feelings because he had once said that when white men swore they did not mean what they said. After we had had some food and what little water was left in my canteen we hovered around the fire and went to sleep.

FURTHER READING. There is a vast anthropological literature on the Aborigines of north-east Arnhem Land, among which

3 See note on p. 169.

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**Selected Reading List**

The most obvious further reading is the remainder of the works from which the various passages have been taken. On the particular subject of each chapter, some suggestions have been made at the end of the relevant chapter. However the following works, or sections of them, provide an introduction to the general history of northern Australia.


Blainey, G., *The Tyranny of Distance: How Distance Shaped
Australia's History. Melbourne, 1966. Provides a perspective to Australian history that is particularly relevant to northern Australia.


Howard, D., 'The English Activities on the North Coast of Australia in the First Half of the Nineteenth Century', *Proceedings of the Royal Geographical Society of Australasia* (South Australian Branch), vol. 33 (1933). The best account of the early British settlements, though recent work has revealed further details of the course of events at the actual settlements.

Ingleton, G. C., *Charting a Continent*. Sydney, 1944. Shows the importance of hydrography in the development of various areas and contains much information about particular hydrographers.


Mulvaney, D. J., *The Prehistory of Australia*. In press. The most recent account of Aboriginal prehistory and the meeting of the Aborigines with various modern intruders.

Price, A. G., *The History and Problems of the Northern Territory, Australia*. Adelaide, 1930. Although very much out of date, summary and *ex parte*, this is still worth reading.

Sharp, A., *The Discovery of Australia*. Oxford, 1963. The evidence for the first European sighting of each section of the Australian coastline is reproduced and some interesting material is included, but this book is chiefly a work of reference.


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Yirrkala, 172
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Zelée, 87, 90n, 91, 92, 97
On S. W. Isle east side
As with theodolite 2722 E.
At this group there is only one full tide in the day. When the moon passed the meridian, at 3 A.M. it was high water at 10 42 M. The tide rises 8 to 9 feet.
The Macassans
A study of the early trepang industry
along the Northern Territory coast

by

C.C. Macknight

Two volumes and a case

Volume 2

This thesis was submitted in partial fulfilment
of the requirements for the degree of Doctor of Philosophy
in the Australian National University

December 1969
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NOTE ON APPENDICES

Appendix 1 has been wholly written by Professor Wang Gungwu. In appendix 9, Thorne is responsible for both the work reported in, and composition of the section on the human material. Gray's contribution to appendix 10 consists of recording most of the information from informants at Yirrkala and much practical assistance in the field. However the actual preparation of the volume has been my responsibility. I am most grateful to these three colleagues for their various contributions.

The inclusion of the last two appendices requires some explanation. Although neither contains important original material directly relevant to the thesis, they make readily available certain rather obscure material, such as the illustrations on pages 10 and 13 of appendix 11. Furthermore, appendix 12 in particular contains considerable background material relating to the general history of northern Australia.
Appendix 1

The Earliest Chinese References to Trepang

by Wang Gungwu

The earliest reference to hai-su (sea-rat) in a Chinese 4th/5th century (?) work about food is preserved in a Japanese encyclopaedia, the Wa Myo-rui ju-so, compiled in 931-37. This hai-su was identified as namako (a holothurian which when dried is edible and is called iriko which is trepang) in the 18th century encyclopaedia, the Wa-kan san-sai tsu-e (1715). By this time, the Chinese seemed to have called trepang hai-sen (sea-ginseng) and the earliest work which used this name that we know of was probably a 17th century "materia medica" called Shih-wu pen-ts'ao quoted in the second Japanese encyclopaedia.

The 19th century scholar Kariya Ekisai (d. 1835) who annotated the Wa Myo-rui ju-so (931-37) quotes three 17th century Chinese sources and also mentions probably the first poem written on trepang in Chinese (by Wu Wei-yeh, also 17th century). He also quotes a Mr Murase as saying that the Chinese learnt how to cure iriko at Nagasaki. The Wa-kan san-sai tsu-e (1715) says that the Chinese traded in Japanese trepang a great deal.

The major Chinese Materia Medica, the Pen-ts'ao kang-mu of Li Shih-ch'en (1552-78) does not mention trepang, but the later notes to this work by Chao Hsueh-mih (1765) quotes several authorities on hai-sen, 3 of which are no longer extant, 3 others probably contemporary local doctors and 2 well-known works. The two well-known works both date from the 17th century, and it is likely that the 3 lost works were also 17th century.
All the 8 sources quoted by Chao (1765) refer to the plentiful supply of holothurians off the Chinese coasts, especially off the Liaotung and Shantung peninsulas in the north. They also mention the supply off the southern coasts, but say these are inferior in quality. There are also descriptions of how these gamat or beronok were caught, and how useful they are as food.

There are minor details which are intriguing. They suggest that the Chinese knew of gamat or something like it more than a thousand years ago but did not learn to eat trepang until four or five hundred years ago. Also interesting is that trepang got its Chinese name hai-sen through association with the Korean-Manchurian ginseng and that the Shantung-Liaotung people probably learnt to appreciate it first (from the Japanese?) before the Fukien (Hokkien) sea-food experts.
Appendix 2

Note on Orthography

In quotations or direct references, I have given words as originally published, except for a very few cases of minor simplification to avoid strange symbols.

For Macassarese words, I have used a simplified version of Matthes' system, except for a few cases where I have followed the specific suggestions of Dr Cense.

For Aboriginal languages, I have used where possible the systems of Moyle (1967). In other cases, I have sought help from various people. As well as those mentioned in the acknowledgements, I would particularly like to thank Miss J. Stokes for transcribing Anindilyaugwa place names and Burraramarra for similar help with a number of place names in northeast Arnhem Land.

After some consideration, I have left many of the words and names collected by myself from Aborigines in the possibly inaccurate - and not necessarily consistent - orthography in which they were recorded in the field. This is for two reasons: firstly the general sound of any word can probably be grasped by anyone familiar with the general field of study and a retrospective attempt to impose a system on my material might only create yet greater confusion; and secondly, there is the possibility that phonetic distinctions made in Macassarese, but not in Aboriginal languages, were in fact remembered. This is particularly the case with words and names still thought of as direct knowledge of the original. For example, I was not aware in the field of the equation of the name (Panambuna) with Panambungang, yet the distinction between P and B was accurately recorded. Of course, with some words, such as the directional terms, my hearing was
undoubtedly influenced by knowledge of the Macassarese terms or their Bahasa Indonesia cognates. All words for whose orthography I have no authority other than my own ear, are enclosed in brackets.
Appendix 3

Notes on Aboriginal Informants Mentioned by Name

Groote Eylandt

Gulpija - Wanindilyaugwa
Malgari - Wanindilyaugwa
Nanungunda - Wanindilyaugwa

Yirrkala

Birrigidji - Dhalwangu Yirritja
Gawarin - Dhalwangu Yirritja
(son of Birrigidji)

Mathaman - Rirratjingu Dhuwa
Mawalan - Rirratjingu Dhuwa
(brother of Mathaman - died November 1967)

Mun-gurrawah - Gumatj Yirritja

Elcho Island

Barrnyurnyur - Dhalwangu Yirritja
Burramurra - Warramiri Yirritja
Dayngumbu - Gumatj Yirritja
(brother of Mun-gurrawah)

Djinggulul - Golpa Yirritja
Gunbeya - Buyuyulkululmirr Dhuwa
(died November 1968)

Willie (Yipiti, Golumala, Walalipa) (see plate 11.1)

Maningrida

Jockey Bundi Bundi - Gunavidji
Old Johnny Godawa - Gunavidji

South Goulburn Island

Guadbu - Maung
Philip Mugulnir - Maung
Ngoliman - Maung

Cobourg Peninsula

Sam Nayuradja - Iwaidja: Nangaridj
Appendix 4

Frogs at Raffles Bay: 1828-9 season

The following table is taken from a microfilm copy of an uncatalogued ms. in the Archives of the Royal Geographical Society, London. I have to thank Dr F.J. Allen, to whom the microfilm belongs, for drawing my attention to this material.
List of Arrivals and Departures of Malay vessels at the Settlement of Raffles Day in the Season of the year 1825

<table>
<thead>
<tr>
<th>Date of Arrival</th>
<th>Date of Departure</th>
<th>Vessel's Name</th>
<th>Commander's Name</th>
<th>Place last left</th>
<th>Date of leaving the original port</th>
<th>Date of arrival</th>
<th>Owner</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tanwula</td>
<td>Salleen</td>
<td>T Joe</td>
<td></td>
<td></td>
<td>De Grapp, Dutch Merch.</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Felix Falsa</td>
<td>Goodman</td>
<td></td>
<td></td>
<td></td>
<td>Logang, Chinese Merch.</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mass Mares</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Nakoda Supe, Malay</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yap</td>
<td>Dalalahia</td>
<td></td>
<td></td>
<td></td>
<td>Kacura Gissighe, Chinese Merch.</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Singse Java</td>
<td>Deasja</td>
<td></td>
<td></td>
<td></td>
<td>De Grapp, Dutch Merchant</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tamavina</td>
<td>Munira</td>
<td></td>
<td></td>
<td></td>
<td>Manin, Dutch Merch.</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sainshare</td>
<td>Sappe Eda</td>
<td></td>
<td></td>
<td></td>
<td>Nakoda Supe, Malay</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lamhli Tamalahia</td>
<td>Paddio</td>
<td></td>
<td></td>
<td></td>
<td>Kintber Seeco, Dutch</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lamhre</td>
<td>Pascio</td>
<td></td>
<td></td>
<td></td>
<td>Rota, Chinese</td>
<td>22</td>
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<td></td>
<td>Chaukheri</td>
<td>Posoco</td>
<td></td>
<td></td>
<td></td>
<td>Demania, Malay</td>
<td>16</td>
</tr>
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<td></td>
<td></td>
<td>Massimania</td>
<td>Roeja</td>
<td></td>
<td></td>
<td></td>
<td>Demenian</td>
<td>49</td>
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<tr>
<td></td>
<td></td>
<td>Baghtraghe</td>
<td>Sidum</td>
<td></td>
<td></td>
<td></td>
<td>2 died on the Passage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sunosi</td>
<td>Demestia</td>
<td></td>
<td></td>
<td></td>
<td>2 died on the Passage</td>
<td></td>
</tr>
<tr>
<td>April 1</td>
<td>April 1</td>
<td>Papiai</td>
<td>Poabatia</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
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<td></td>
<td>Sundong</td>
<td>Damisio</td>
<td></td>
<td></td>
<td></td>
<td>2 died on the Passage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sundong Cutupa</td>
<td>Rosskee</td>
<td></td>
<td></td>
<td></td>
<td>Roekeel</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sundong Tamalahia</td>
<td>Sappe Padoo [?]</td>
<td></td>
<td></td>
<td></td>
<td>Sappe Padoo [?]</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sundong Sioveg</td>
<td>Sappe T Joe</td>
<td></td>
<td></td>
<td></td>
<td>Tale</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Amang</td>
<td>Deang</td>
<td></td>
<td></td>
<td></td>
<td>1 died on the Passage</td>
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<tr>
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<td></td>
<td>Puttike Djanmja</td>
<td>Deang</td>
<td></td>
<td></td>
<td></td>
<td>3 died on the Passage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Buessa Node Poleang</td>
<td>Sappe Damang</td>
<td></td>
<td></td>
<td></td>
<td>3 died on the Passage</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Talatanye</td>
<td>Gali</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Tangpendalong</td>
<td>Samaose</td>
<td></td>
<td></td>
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<td>3 died on the Passage</td>
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<td>Lamboe T. Jaiiilang</td>
<td>Sappe Dane</td>
<td></td>
<td></td>
<td></td>
<td>3 died on the Passage</td>
<td></td>
</tr>
<tr>
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<td></td>
<td>Lamboe Jaiiilang</td>
<td>Salleang</td>
<td></td>
<td></td>
<td></td>
<td>3 died on the Passage</td>
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<tr>
<td></td>
<td></td>
<td>Soenbacaro</td>
<td>Palia</td>
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<td></td>
<td>3 died on the Passage</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Puttike Djanmja</td>
<td>Mahka</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>Bongganga</td>
<td>Sappe Kasiupa</td>
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<td></td>
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<td>3 died on the Passage</td>
<td></td>
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<td></td>
<td></td>
<td>Munoromtem</td>
<td>Poes Ayre</td>
<td></td>
<td></td>
<td></td>
<td>3 died on the Passage</td>
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<td></td>
<td>Tamaraming</td>
<td>Muae</td>
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<td></td>
<td>Sundong</td>
<td>Poes Dami</td>
<td></td>
<td></td>
<td></td>
<td>3 died on the Passage</td>
<td></td>
</tr>
<tr>
<td></td>
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<td>Puttikeri</td>
<td>Pasha Banto</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Kacharoos</td>
<td>Pato</td>
<td></td>
<td></td>
<td></td>
<td>3 died on the Passage</td>
<td></td>
</tr>
</tbody>
</table>

469
The dates of leaving Macassar cannot be exactly depended on as their mode of reckoning by months is not always clear. Those that arrived in May have usually the last date specified in the Macassar Port Clearance instead of the date of sailing. Each Proa had on the average about two [-8] or Forty piculs of Trepang which was considered to be about half a moderate cargo. The price they expected at Macassar was from 35 to 40 Dollars the Picul.

C. Barker Capt 39th Reg.
Commandant

Notes

1. In the original, the date 1828 is written at the head of the first, seventh and eighth columns. This seems to be a mistake, as reference to Barker's Journal (Barker 1829) and other letters (HRA III, 6:830, 832, 837) confirms that these praus arrived in the first half of 1829, and not in the previous year. Only the December dates for leaving Macassar refer to 1828. However as the first date in all columns is for 1829, this does not satisfactorily explain the cause of the confusion. Details for the previous year are given under site 5 in chapter 5.

2. The Dutch orthography of certain names suggests that at least some of the information was taken from papers. However there seem to be some errors in copying, just as there are a few difficulties in reading this document.

3. The final comments are in Barker's hand, though the table itself is not. A few minor changes of convention have been made in the table.

4. A few of the names of praus and of men recur in the lists in appendix 8. See this appendix also for the
meanings of some of the prau names. It is unlikely that the same prau or individual is being referred more than half a century later.

5. A total of 37 men died on the passage, 3 were speared by Aborigines and 1 died in the bay. Thus, out of 1056 men who left Macassar, 41 (or 3.9%) had already died. These are not complete figures for the season as there were other praus which did not call at Raffles Bay, and those that did, had still to return to Macassar.

6. These four Aborigines from the Gulf of Carpentaria may have absconded at Raffles Bay and returned home directly (Wilson 1835:81).

7. Earl (1846:56-8) when describing a visit by five praus to Port Essington in March and April 1839 gives some further details about this man. 'Bapa Padu, the commodore, was the oldest nakodah upon the coast, having been in the habit of visiting it annually for upwards of thirty years. Many inquiries were made respecting Captain Barker, the last commandant at Raffles' Bay, whom they appeared to esteem very highly. Bapa Padu was in possession of a telescope that he had purchased there, and the compasses by which they directed their course had been derived from the same source... Three of the prauus, under Bapa Padu, sailed together for Macassar, but the grey-headed old man was destined never to revisit the country that had been for so many years the scene of his labours; for the prauus were attacked and taken by pirates from the Phillipine Islands, while passing the island of Flores, and the crews carried as slaves to Mindanao. Menangbari, the youngest of the P'ngawas, alone was liberated, owing to his father having been known to the chief of the pirates. He returned among us two years after this event, and related the sad fate
of his old commodore.'

8. An illegible word, perhaps 'ton'.
Appendix 5

The Recognition of Areas of Former Mangrove Clearance

As discussed in chapter 4, there is considerable historical and archaeological evidence that the Macassans cleared areas of mangroves for firewood. Although little definite information is available about the rate of mangrove recolonization, some observations at such points as the beach in front of Milingimbi mission which is said to have been at least partially cleared, or at Camden Harbour in Western Australia where a clearing is said to have lasted for nearly a century, prompted speculation that some results of Macassan clearance might still be detectable after more than 60 years. The most likely expression of this appeared to be a predominance in certain areas of colonizing species which had not yet been replaced by the species normally to be expected in the particular situation. As an example of the process, Sopher (1965:6) notes the tendency of Avicennia to take over areas cleared of Rhizophoras and Bruguieras.

To test this hypothesis, specimens were collected from different areas at a number of sites. Some attempt was made to collect specimens from all species of mangrove in the various associations, though this was by no means rigorous and methods of conservation were less than ideal. These specimens were kindly identified by Mr Max Gray of the Division of Plant Industry, C.S.I.R.O., Canberra, though he is in no way responsible for the interpretations placed upon his identifications.

The simplest situation is seen at Lyaba (site 32a). Here mangroves immediately adjacent to the small beach at the front of the site are:
Bruguiera exaristata     Ding Hou (Rhizophoraceae)
Ceriops tagal (Ferr.)    C.B. Rob. (Rhizophoraceae)

Flanking these to N and S is:

Rhizophora stylosa     Griff. (Rhizophoraceae).

If, as seems likely on other grounds, the present break at the beach was a much larger clearing in Macassan times, the former two species could be regarded as the first recolonizers, followed up by the denser Rhizophora, encroaching from N and S.

At Hardy Island west (site 20d), there are more species represented. From the sides of a distinct break in the dense mangroves in front of the site (plate 5.7), the following specimens were collected:

Rhizophora sp.
Avicennia sp., possibly A. eucalyptifolia Zipp
Bruguiera exaristata. [ex Miq. (Avicenniaceae)
Ceriops sp., probably C. tagal.

Again the denser, taller mangroves further to the N and S were:

Rhizophora sp.

The recurrence of Ceriops and Bruguiera and the presence of Avicennia in the area of postulated regrowth are particularly notable. The greater variety in this area should also be pointed out.

Of some further interest is a collection made of species directly adjoining the strand line behind the main belt of mangroves. This includes:

Ceriops tagal
Osbornia octodonta     F. Muell (Myrtaceae)
probably Lumnitzera racemosa Willd. (Combretaceae).
A very similar situation to that at this site is seen at Wakanhu (site 20a) though no specimens were collected here. See plate 5.5.

Specimens were also collected in the vicinity of the Anuru Bay site (site 9). In the area of the cut stumps some distance S of the site, the regrowth consists of mainly:

Ceriops tagal, with some of what is probably Bruguiera exaristata.

Along the S front of area 1 at the site itself, a great variety of mangroves is found. In the area to the W of about S.L. 8, the following species occur:

Avicennia sp.
Rhizophora sp.
Bruguiera exaristata
Ceriops tagal
Osbornia octodonta
Excoecaria agallocha L. (Euphorbiaceae)
Pemphis acidula Forst. et f. (Lythaceae)
Aegialitis annulata R. Br. (Plumbaginaceae).

(As suggested in chapter 6, there may have been geomorphological reasons for the extension of the mangrove environment in this area, as well as the effect of possible clearance.)

In all this field evidence, there is a suggestion (but no more) of the role of species such as Ceriops tagal and Bruguiera exaristata as well as Avicennia as initial colonizers, or more accurately recolonizers. Variety is perhaps another mark of an area under colonization.

There are however many other complicating factors which need to be considered before any more positive
statement can be made. For example, there is the effect of varying soils or other micro-environmental irregularities. Thus Specht (1958a: 377) describes an autogenic successional relationship between various mangrove communities depending upon the degree of tidal flooding. There appears to be some correlation between recolonizing species and those which Specht suggests prefer less tidal flooding. The Ceriops and Bruguiera in the area of cut stumps at Anuru Bay may, therefore, be attributable to the environment, so that this case cannot be used as a valid comparison with other sites. Tidal variation may also explain the different species found along the strand at Hardy Island, but it does not explain the difference in the other two associations at this site, which receive identical tidal flooding.

The whole topic deserves further specialized study.
Appendix 6

Notes on Series held in the Archives Department of the State Library of South Australia

SAA 790 - Correspondence received in the office of the Minister controlling the Northern Territory: 1868-1910.

This is indexed in annual volumes held as SAA 791. The volumes covering 1880-1907 have been systematically searched.

SAA 793 - Out letter books of the office of the Minister controlling the Northern Territory: 1868-1910.

This is indexed in annual volumes held as SAA 797. The volumes covering 1880-1907 have been systematically searched. As the letter book copies are often very difficult to read and are not in strict numerical order, the page in the letter book is a useful addition to references to SAA 793.

SAA 801 - Copies of telegrams despatched from the office of the Minister controlling the Northern Territory: 1872-1911.

This is also indexed in SAA 797. In general, the telegrams are confirmed by a letter to be found in SAA 793.

This is registered in numerical order in 5 typewritten volumes:

i  1870-1881  A-A4761
ii 1881-1885  A 4762-A8380
iii 1885-1888  A8581-A11382
iv 1888-1891  1-2099
v  1898-1903  8013-11843

and in SAA 1375 Nov. 1902 - Apr. 1909.

This has been systematically searched except for a break A6997 to A11382.

SAA 820 - Newspaper cuttings: 1883-1911 [apparently kept in the office of the Minister controlling the Northern Territory] is also of considerable use.
Appendix 7

Sources of Annual Statistics for the Northern Territory
Trepan Industry: 1881-1907

The basic source for quantities and values of rice, spirits and tobacco imported into the Northern Territory, together with rates of duty, and of trepan and tortoise-shell exported, is part IV of the annual Statistical Register of the Province of South Australia...

Compiled from Official Records in the Office of the Government Statist. This register is printed as South Australian Parliamentary Paper (SAPP) No. 3 for the year following that to which the figures refer. For 1904 and later years, the figures for the Northern Territory are not separated out, and the totals cannot be usefully interpreted. Before this however, the statistics appear to be consistent and are probably roughly accurate. The price of trepan, when quoted in shillings and pence per picul, has been calculated directly from these figures using the formula:

Price = Total value in pounds x 20 x 133

Tons x 2240

All trade with Macassar is attributed to Macassan activities, unless specifically excepted.

The reports of the Government Resident, together with the reports from various departments, are also printed in SAPP throughout this period. They are not always annual and the indices of SAPP should be consulted. These reports, particularly the Customs appendices, contain useful statistics, which in total usually confirm those in the Statistical Registers. In the occasional cases of minor
difference, the registers have been followed.

Apart from reports on particular topics, the Customs officer at Bowen Strait prepared at least one report with a list of praus and balance sheet for each season. In a few cases these, and even some documents carried on the praus themselves, have been preserved either in other files in the Archives or printed in the Customs appendices to the Government Resident's reports. The location of all surviving reports from Bowen Strait is given in the seasonal lists below. However the usual procedure was for the Sub-Collector of Customs in Darwin to forward all his records, presumably including these reports, to the Audit Department in Adelaide, through the office of the Minister controlling the Northern Territory. The accompanying lists of papers sent have been preserved (e.g. SAA 790/1889/145; 1890/112,212), but the reports themselves cannot be located and may have been destroyed in the Audit Office.

Conversely, the lists of praus sent from Macassar were probably forwarded to Bowen Strait, and only the accompanying letters survive (see chapter 13).

The following list indicates for each season the essential sources of statistical information, other than the Statistical Registers described above. It is not an exhaustive list in that much of the information can be confirmed elsewhere, but it does contain the direct source of all names and figures in various tables, or the sources
from which the figures can be calculated. Only those
Government Resident's reports containing names and figures
not available elsewhere have been included.

<table>
<thead>
<tr>
<th>Year</th>
<th>Description</th>
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</thead>
</table>
| 1881-2 | SAA 790/1882/346  
         | SAA 1374/A5167 |
| 1882-3 | SAA 790/1883/319 |
| 1883-4 | SAA 790/1884/177  
         |               |
| 1884-5 | SAA 790/1885/423  
         | Nederburgh 1896-8 |
| 1885-6 | SAA 790/1886/356 |
| 1886-7 | SAA 790/1887/477  
         | SAPP 1887/53  
         | SAPP 1888/53 |
| 1887-8 | SAA 790/1888/615  
         | SAPP 1888/53 |
| 1888-9 | SAA 790/1889/333  
         | SAPP 1889/28  
         | SAPP 1890/28 |
| 1889-90 | SAPP 1890/28 |
| 1890-1 | SAA 790/1891/98  
         | SAA 790/1892/130  
         | SAPP 1892/181 |
| 1891-2 | SAA 790/1892/130  
         | SAPP 1893/158 |
| 1892-3 | SAPP 1894/53 |
| 1893-4 | SAPP 1895/24 |
| 1894-5 | SAA 790/1895/175  
         | SAPP 1897/45 |
| 1896-7 | SAA 1374/13848  
<pre><code>     | SAPP 1898-9/45 |
</code></pre>
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<tr>
<th>Year</th>
<th>SAA</th>
<th>SAPP</th>
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</thead>
<tbody>
<tr>
<td>1897-8</td>
<td>1374/</td>
<td>1898-9/45</td>
</tr>
<tr>
<td></td>
<td>13848</td>
<td></td>
</tr>
<tr>
<td>1898-9</td>
<td>1374/</td>
<td>9505</td>
</tr>
<tr>
<td></td>
<td>8745</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>13848</td>
</tr>
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<td>SAPP 1900/45</td>
<td></td>
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<tr>
<td>1899-1900</td>
<td>1347/</td>
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<tr>
<td>SAPP 1901/45</td>
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<td></td>
</tr>
<tr>
<td>1900-1</td>
<td>1374/</td>
<td>1902/45</td>
</tr>
<tr>
<td></td>
<td>10241</td>
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<td>13848</td>
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</tr>
<tr>
<td>SAPP 1902/45</td>
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</tr>
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<td>1901-2</td>
<td>SAPP 1903/45</td>
<td></td>
</tr>
<tr>
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<td></td>
</tr>
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<td>1902-3</td>
<td>SAA 790/1903/438</td>
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<td></td>
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<tr>
<td></td>
<td>SAPP 1904/45</td>
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<tr>
<td>1903-4</td>
<td>SAPP 1905/45</td>
<td></td>
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<tr>
<td></td>
<td>SAPP 1906(i)/45</td>
<td></td>
</tr>
<tr>
<td>1904-5</td>
<td>SAA 790/1906/360</td>
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</tr>
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<td>SAA 1374/13497</td>
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<tr>
<td></td>
<td>15236</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAPP 1906(i)/45</td>
<td></td>
</tr>
<tr>
<td>1905-6</td>
<td>SAA 790/1906/360</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAA 1374/15236</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAPP 1907/45</td>
<td></td>
</tr>
<tr>
<td>1906-7</td>
<td>SAA 790/1906/360</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAA 1374/15236</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAPP 1907/45</td>
<td></td>
</tr>
</tbody>
</table>

In all documents, the greatest care must be exercised to distinguish calendar years from trepanning seasons. Annual figures usually refer to the season beginning in
the previous November or December.

The figures marked by an asterisk in table 13.1 have been calculated by the following procedure. The total government revenue collected at Bowen Strait for the particular year is obtained from the Government Resident's report, or one of the other sources listed above. The duty payable on the imports recorded in the Statistical Register is then computed at current rates and the total subtracted from total revenue. The remainder is presumably derived entirely from licence fees. On the rates for licence fees introduced in 1891, the annual fee for a prau and its canoes averages, on known years, a little less than £7. By dividing the total licence fees by six or seven, an estimate of the number of praus for the year can be made, which is not likely to be in error by more than one prau. The estimate for the number of praus in 1890-1 is arrived at by a similar comparison of the rate of licence fees for previous years.
Appendix 8

Praus and Masters visiting the Northern Territory
Coast: 1882-1907

For purposes of tabulation, praus have been indicated by a letter symbol and masters by a number according to the lists given below. The spelling of both prau names and personal names is often grotesque in the Australian records, and there is great variation. An attempt has been made to reduce this confusion to a standard orthography, and to produce names which are more or less likely. For help with this, and for suggesting the meaning of many of the prau names, I have to thank A. Abubakar Punagi of Macassar. The chief remaining difficulty is to separate different praus or men with the same or similar names. The tonnages of praus are some guide, but that given for what is clearly the same prau often varies slightly from year to year. The figures given below therefore, are only very approximate.

The sources for the information are set out in appendix 7.

<table>
<thead>
<tr>
<th>LETTER</th>
<th>NAME</th>
<th>APPROXIMATE TONNAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Bondeng Katupa'</td>
<td>60 (?)</td>
</tr>
<tr>
<td></td>
<td>Bondeng is a type of broad-beamed prau.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Katupa' is a type of cooked rice.</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>Palari Lambere Djima</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Palari means racer. Lambere is a type of narrow-beamed prau.</td>
<td></td>
</tr>
</tbody>
</table>
Erang Poleang
The name means the Returner, in both a literal and a financial sense.

Patti Djawa'ya
The name means the Foreign Box.

Paduwakang Lakarinlong
Paduwakang is a type of prau.

Lambere Lakara
Lakara means Wealth.

Saro Masea
The name means to be helpful in expectation of return help.

Parirrisi
The name of a kampong near Macassar.

Lambere Olpre
This might be prau T.

Lambere Kaledupa
The second name means the Existence of Reality.

Todjeng Kanaiya
The name means the True Word.

Paduwakang Bondeng Mannongkoki
The third name means the Superior.

Paduwakang Tjinna Mataiya
The last names mean the Desire of the Eyes.

Bondeng Patola
Patola means excellent or many-coloured.
Paduwakang Lambere Lure
Lure is a type of little fish.

Sibalase
The name means the Lontar Bucket.

Lambere Gaddong
Gaddong means the Money Box.

Samalawaiya
The name means Similar Endurance.

Mase-masea
The name means Simplicity.

Lambere Upa
Upa means Luck.

Sung Ang
Perhaps a Chinese name.

Lasalasaya
The name means Neat and Proper.

Lambere Suruga
Suruga means Heaven.

Lambere Kampong Beefie
The name of the Kampong looks very
Englished.

Bunga Edjaya
The name means the Red Flower

Lambere Udjung Tanah
Udjung Tanah probably refers to
the kampong of this name in Macassar.
Bondeng Maloku

Maloku probably refers to the kampong of this name in Macassar.

Lambere Gogoso

Gogoso is a form of sweet food.

Lambere Pintu Dua

Pintu Dua probably refers to the kampong of this name in Macassar.

MASTERS

1. Jago, perhaps better Djago
2. Bapa Palu
3. Bangkasi
4. Saga
5. Daeng Matona
6. Unusu daeng Remba
7. Maritja
8. Parukka
9. Parduan
10. Sasieng or Tascieng
11. Minda, perhaps better Manda
12. Ardang
13. Lamuda
14. Bali or Aming, perhaps really Aming daeng Bali
15. Using daeng Marangka
16. Pua Nando
17. Aha
18. Ruani
19. Daenna
20. Muntu
21. Mappa
22. Alanranka
23. Tjamming  
24. Laba  
25. Sulemang daeng Magassing  
26. Mangulang  
27. Amieng Unana  
28. Halakalve  
29. Bisbu  
30. Nuhung  
31. Haiang  
32. Madya  
33. Bapa Bidolo  
34. Sumang  
35. Tale

<table>
<thead>
<tr>
<th>Season</th>
<th>Total Number of praus on N.T. Coast</th>
<th>Praus and Captains</th>
</tr>
</thead>
<tbody>
<tr>
<td>1881-2</td>
<td>?-1 (wrecked); A-2.</td>
<td></td>
</tr>
<tr>
<td>1882-3</td>
<td>127</td>
<td>A-2; B-3; C-4; D-5; E-6; F-7; G-8; H-9; I-10; J-11; K-12; L-13.</td>
</tr>
<tr>
<td>1883-4</td>
<td>7</td>
<td>B-3; C-2; D-5; E-6; M-14; Ni-15; 0-16.</td>
</tr>
<tr>
<td>1884-5</td>
<td>13</td>
<td>B-3; D-19; E-6; L-20; M-14; Ni-21; 0-16; P-17 Qi-18; W-25. 15 also down as a master, and 2 as second in command of a prau.</td>
</tr>
<tr>
<td>Year</td>
<td>Number</td>
<td>Details</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1885-6</td>
<td>16</td>
<td>B-3; C-15; D-5; E-6; H-22; K-23; L-20; M-14; Nii-24; O-16; P-25; Qi-18; R-26; S-27; T-7; U-17.</td>
</tr>
<tr>
<td>1886-7</td>
<td>11</td>
<td>C-15 (wrecked); M-14; V-? (wrecked).</td>
</tr>
<tr>
<td>1887-8</td>
<td>11</td>
<td>B-3; D-5; E-6; L-20; M-24; Nii-15; O-16; P-7; Qi-18; R-28; W-17.</td>
</tr>
<tr>
<td>1888-9</td>
<td>9</td>
<td>B-3; E-6; L-20; Nii-15; R-26; W-17.</td>
</tr>
<tr>
<td>1889-90</td>
<td>10</td>
<td>B-3; D-29; E-6; L-5; M-30; Nii-15; O-31; P-27; Qi-20; W-25.</td>
</tr>
<tr>
<td>1891-2</td>
<td>8</td>
<td>Qi-?</td>
</tr>
<tr>
<td>1894-5</td>
<td>4</td>
<td>M-25 (wrecked); Nii-15 (wrecked): both owned by one man.</td>
</tr>
<tr>
<td>1897-8</td>
<td>6</td>
<td>D-25; L-32; X-6; Y-15; Zi-7; AA-33.</td>
</tr>
<tr>
<td>1898-9</td>
<td>6</td>
<td>Y-? (a prau of this name is said to have been wrecked, but one of the same name and tonnage continued to come. Perhaps there was a mistake over the name of the wrecked prau which was owned by 6.); Zi or ii-7.</td>
</tr>
<tr>
<td>Year</td>
<td>Praus</td>
<td>Notes</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>1899-1900</td>
<td>5</td>
<td>Y-15; AA-? (perhaps lost by fire). 6 also down.</td>
</tr>
<tr>
<td>1902-3</td>
<td>6</td>
<td>D-25; L-6; Y-15; Zii-7; AB-34; AC-35.</td>
</tr>
<tr>
<td>1904-5</td>
<td>2</td>
<td>Y-?; Zii-?.</td>
</tr>
<tr>
<td>1905-6</td>
<td>4</td>
<td>L-?; Y-?; AB-?; AC-?.</td>
</tr>
<tr>
<td>1906-7</td>
<td>1</td>
<td>Y-15.</td>
</tr>
</tbody>
</table>

In 1969, Mangngellai was able to remember 5 praus and their masters which he thought had come to the Northern Territory in the last years of the industry. The suggested correlations with the previous lists are given in brackets.

**PRAU**
- Patti Djawaja (D)
- Bunga Edjaja (Y)
- Bille' Padjaja
- Bunga Rosia
- Samalantea

**MASTER**
- Daeng Gassing (25)
- Huseng daeng Rangka (15)
- Hadji Junus daeng Remba (6)
- Maritja daeng Libu (7)
- Daeng Talle Uwa'na Itoring (35)

It will be noted that the first two cases agree exactly with what is recorded for 1902-3, while masters 6, 7 and 35 also came in that year but on different praus. The
other three praus appear not to be mentioned in the list above. The fact that at least some of this information is demonstrably correct is a greater cause for admiration, than that there has been some confusion in the old man's memory.
POENGGAWA
HADJI DAENG
REMBA

BY. EUROPA
OEEDIN,
MAKASSAR IND:

PLATE 2.2
PLATE 2.3: Manggellai daeng Haro, son of Using daeng Harangka, Macassar, 1969. He was born in 1895.

PLATE 3.1: The upper interior of the house at Djalan Ali Malaka 27, Kampung Maloku, Macassar showing two of the main posts said to have come from the Northern Territory. The man with his hands on one post is Eropa Uddir. On the extreme left is Abdurrahim.
PLATE 4.1: Trepang boilers, a photograph by Dr Mervyn Holmes reproduced by Masson (1915:opp.168). Although almost certainly European in origin, this stone line is very similar to Macassan examples.
PLATE 5.1: North beach, Entrance Island (Site 13 b). General view of S.L. 3 with trench, looking NE. S.L. 2 can also be seen in front of the men.

PLATE 5.2: North beach, Entrance Island (Site 13 b). The buried S.L.
PLATE 5.3: North beach, Entrance Island (Site 13b). Three central bays of S.L. 5 when cleared, looking N.

PLATE 5.4: Mardarangup Island (Site 14c). Trench across S.L. with tamarind tree behind.
PLATE 5.5: Wakanhu (Site 20 a). View looking SW, showing possible area of mangrove clearance. A S.L. can be seen in the left foreground.

PLATE 5.6: Hardy Island West (Site 20 d). S.L. I looking E.
PLATE 5.7: Hardy Island West (Site 20 d). Looking W from S.E. 1 showing break in mangroves.

PLATE 5.8: Wobalinna Island (Site 25 a). View of the cove from W.
PLATE 5.9: Wobalinna Island (Site 25 a). The eroding end of S.L. 5 and section 2.

PLATE 5.10: Wobalinna Island (Site 25 a). Detail of section 2.
PLATE 5.11: Wobalinna Island (Site 25 a). View looking S. The figure is standing in S.H.A. S.L. 5 lies between the ranging pole and the extreme right of the picture.

PLATE 5.12: Yaranya Island, site 1 (Site 31 a). Section across S.H.C, looking S.
PLATE 5.13: Derramerengmaja (Site 31 b). View of the S.L., looking SW to Finch Island behind. Sticks mark the walls of the bays.
PLATE 6.1: General view of a part of the Anura Bay site, looking W along the S front from square A/13/8.
PLATE 6.2: General view of 1967 excavations in A/7/7, looking N. The baulk consists of 1966 backfill in A/I/20C and D. The trepang pit dug into the underlying consolidated sand is clearly visible.
PLATE 6.3: S section of A/T/18D, cutting directly across the trepang pit.

PLATE 6.4: S section of A/T/18G showing S.L.1 in section.
PLATE 6.5: The Anuru Bay site. View of S.H.F before excavation, looking SW.

PLATE 6.6: The Anuru Bay site. S.H.F exposed to working surface, looking SW.
PLATE 6.7: The Anuru Bay site. S.H.F exposed to working surface, looking NW.
PLATE 6.8: The Anuru Bay site. Burial 2 as exposed.
PLATE 6.9: A/7.5/9.0. SE corner showing band of oyster shells over possible rakesout.

PLATE 6.10: The Amaru Bay site. The excavated portion of S.I. 17, looking E. (The trench behind is incomplete.)
PLATE 6.11: The Anuru Bay site. S.L. 17 and part of the two long trenches in Area 2, looking N.

PLATE 6.12: The Anuru Bay site. S.L. 19, looking S.
PLATE 6.13: The area of mangrove clearance at Amuru Bay. The stump beside the ranging pole in the view of part of the area (left), is shown in detail (right).

PLATE 6.14: Crowns of two further stumps from the area of mangrove clearance at Amuru Bay.
PLATE 6.15: The Anuru Bay site. The Aboriginal beach camp as found in 1967, looking SW.

PLATE 6.16: The Anuru Bay site. Section across smoke fire to the N of shelter in Aboriginal beach camp, showing accumulation of white ash.
PLATE 6.17: The Anuru Bay site. Soil movement experiment as left, looking SE.

PLATE 6.18: The Anuru Bay site. NE end of S.L. 11 showing 2½ bays.
PLATE 6.19: The Anuru Bay site. View looking SE along the S side of the site outside the mangroves at low tide. Area 2 is behind the dry sandy beach.
PLATE 7.1: The eastern part of Area 32 showing the sites mentioned in chapter 7. The large, central island is Ilyaugwamaja.
PLATE 7.2: Lyäba from the sea.

PLATE 7.3: Lyäba. Detail of central bays of S.L. 8, looking S.
PLATE 7.4: Lyääba. S.L. 8 and the trepang pit behind it, looking E.

PLATE 7.5: Lyääba. Section of trepang pit behind S.L. 8.
PLATE 7.6: Lyaba. E section of 9.4/10.0 showing c. 40 cm of clean sand above the dark 'Macassan' surface.

PLATE 7.7: Lyaba. S.E. 4 and the tamping pit behind it, looking SE.
PLATE 7.8: Lyūba. S.L. 5, looking SW.

PLATE 7.9: Lyūba. Trench across S.L. 13, looking NW.
PLATE 7.10: Lyäba. E section of 7.0/11.9 and part of 7.0/11.8, showing S.M. ash lens.

PLATE 7.11: Ilyaungwama 4 or the Beach of the Fight. General view looking S.


PLATE 7.15: Äningmerrunguwa Island. S.L. 4, showing construction from dark brown and pale sandstone, looking S.
PLATE 8.1: IMPORT WARE, CATEGORIES 1A AND 1B
PLATE 8.4: IMPORT WARE, CATEGORY 1c
PLATE 8.5: IMPORT WARE, CATEGORY 1c
PLATE 8.6: IMPORT WARE, CATEGORIES 2 AND 3
PLATE 8.9: U.S.N.M. PHOTO. NEG. NO. 42843-c.
SEE SITE 30A
PLATE 10.1: COINS
PLATE 10:2: FISH-HOOKS AND OTHER SMALL METAL OBJECTS
PLATE 10.3: IRON CAULDRON, S 129
PLATE 10.4: IRON OBJECTS
PLATE 10.5: CASE BOTTLE PRUNTS
PLATE 11.1: Willie, whose father is said to have been a Macassan, Elcho Island, June 1967.
L  Sail
M  Anchor
N  Prau as a whole
O  Rope attaching sail to yard
P  Coiled anchor rope in the bows
Q  Two stanchions just behind the bowsprit


PLATE 11.4: Paintings of two praus in the rock shelter at Yinalawaliyamadja, Groote Eylandt.
PLATE 11.5: Bark painting by Jerry Kerinaiua, Melville Island, 1964, in the possession of Mr John Morris, Darwin (1967). The painting represents the wreck of a Macassan prah during a ceremony and the escape of the crew in canoes to the Cobourg Peninsula (on right).
PLATE 11.6: Remba's house. The occasion is the circumcision of Dande daeng Liong in 1914. The original photograph is now in the possession of Eropa Uddin, the young boy in the dark coat. Several informants, including Dande and Eropa, identified this with the building shown in plate 11.7.

PLATE 11.7: The Muslim school at Djalan Nalpa 18, Kampung Bassi, Macassar, said to be the building shown in plate 11.6, but extensively altered.
LEGEND TO FIGURES AND SHEETS

Maps

Stone line. These are distinguished by numbers, where observable (and not described elsewhere), the open side of the bays is indicated by an arrow.

Pit for burying trepang

Smoke house depression. These are distinguished by letters.

Smoke house

Ash or charcoal concentration on the surface

Tamarind vegetation

Other trees and bushes

Naturally outcropping rocks

Sections

Light grey sandy deposit

Dark grey sandy deposit

Consolidated sandy deposit

Shelly deposit

Ash

Rocks in section

A thin, overlying band of windblown material is shown as clean deposit.
FIGURE 6.2: The Anuru Bay Site. Contour plan of SHF, before excavation. The contour interval is 2 cm.; spot heights are in metres below West Survey Point. The sections marked are those on sheet 4.
FIGURE 6.3: The Anuru Bay site. Plan of excavation of S.H.F, showing area exposed to working surface, and plan of soil movement experiment as left.
FIGURE 9.1: Edge-punch card for Macassan pottery
FIGURE 9.2 Earthenware sections
FIGURE 9.4 Decorated earthenware
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