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*The Rock Engravings of Depuch Island,  
North-west Australia*

By  
FREDERICK D. McCARTHY

Pages 121—148

Plates IX—XV

Figs. 1—292

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## THE ROCK ENGRAVINGS OF DEPUCH ISLAND, NORTH-WEST AUSTRALIA

By FREDERICK D. McCARTHY,

Australian Museum

(Figs. 1-292) (Plates IX-XV) Manuscript received 14.4.60

Depuch Island was named by the Baudin Expedition (Peron and Freycinet, 1824) in 1801 in honour of Louis Depuch, mineralogist of the expedition, who died at L'Île de France in 1803, the year in which the Forestier's Archipelago was discovered and named. It is by far the most prominent island in the archipelago, all of the others being low and sandy. M. Ronsard, the engineer, spent almost a week examining Depuch Island, which he recorded as being in lat. 20° 35' 30", and long. 115° 12' 50", and between four and five miles in length.

None of the scientists were allowed to accompany him or to land, and this omission probably explains why the remarkable series of rock engravings was not noted by the expedition. Ronsard remarked on the columnar basalt structure of the island, with the prisms lying at all angles and, in some places, forming pavements. The colour of the rock he noted to be bluish grey, and the texture very fine and compact. Only one quadruped was seen, which was thought to be a dog, and one of the seamen saw a small kangaroo<sup>1</sup>. A few kinds of flycatchers and waterfowl were seen, and also a brown serpent, about 5 ft. in length, of the boa kind. Various insects and shells complete the fauna recorded on the island. A small quantity of ferruginous water was obtained from hollows, where beautiful shrubs and trees formed pleasant groves; elsewhere there was absolute sterility. Ronsard was impressed by the melancholy and monotony of the island, and the discomfort of the walking. No natives were seen, but fireplaces and newly-broken pieces of basalt proved that they visited the island.

H.M.S. Beagle was the next vessel to visit Depuch to obtain water. Captain Wickham (1842, whose description was republished by Stokes in 1846) said the island was a vast pile of reddish-coloured blocks, eight miles in circumference and 514 ft. high, with an even silhouette from seaward. Mr. Bynoe, from the Beagle, found a reservoir of water in the main valley, called Watering Valley by Wickham, which runs into the heart of the island from the northern end of Beagle Beach. As no rafts<sup>2</sup> were seen in this area, it was presumed that the natives walked<sup>3</sup> across the sandbanks at low tide to visit the islands, of which Depuch appeared to be their favourite resort, to secure turtles and fish. Several huts were seen on the island, but no natives, and those observed on the nearby mainland fled immediately an attempt was made to approach them. Another purpose of their visits was to "exercise their talents for drawing representations of whatever they had seen upon the flat surface of the rocks. This they do by removing the hard red outer coating, and baring to view the natural colour of the greenstone according to the outline they have traced". Thirteen figures were published out of the 94 listed, and apparently drawn, by Wickham, who took an unusually keen interest in this art during "many an excursion over that dreary heap of desolation".

Depuch Island, called Womalantha by the natives, is situated between Port Hedland and Roebourne (in Nickol Bay) on the north-west coast of Australia. It is opposite the "ghost" port of Balla Balla, which is now almost completely obliterated. Peawah Hill, some six miles to the south on the mainland, and on which are some engravings I did not have time to record, is a similar igneous outcrop. The rock is identified as an epidiorite or altered dolerite (David's geological map of Australia).

There are several fine sandy beaches on the island. Petri and Schulz (1951) said there was no water there, but it is available in small pools along the rocky shore above high-water mark, particularly on the southern side of Anchor Hill, directly below the engravings. An abundant supply is available from large pools in Watering Valley. The island was declared a sanctuary in 1958 for the protection of the engravings and fauna.

Smyth (1878, I, 292-3, figs. 44-46) mistakenly described the art as that of painting, an error repeated by Mathew (1893, 42). Mathew (1895) obtained information from Messrs. A. A. Hall and W. Byron about the art which corroborated Wickham's original account. Davidson (1936, 1952) discussed the techniques, styles and subjects, and McCarthy (1958) referred briefly to them.

<sup>1</sup> Both were probably rock wallabies.

<sup>2</sup> Richardson (1886, 298) said the natives of this area sat "astride" a log of wood and propelled it with their hands.

<sup>3</sup> Depuch Island cannot be reached in this way at present, owing to a deep channel along the southern shore.

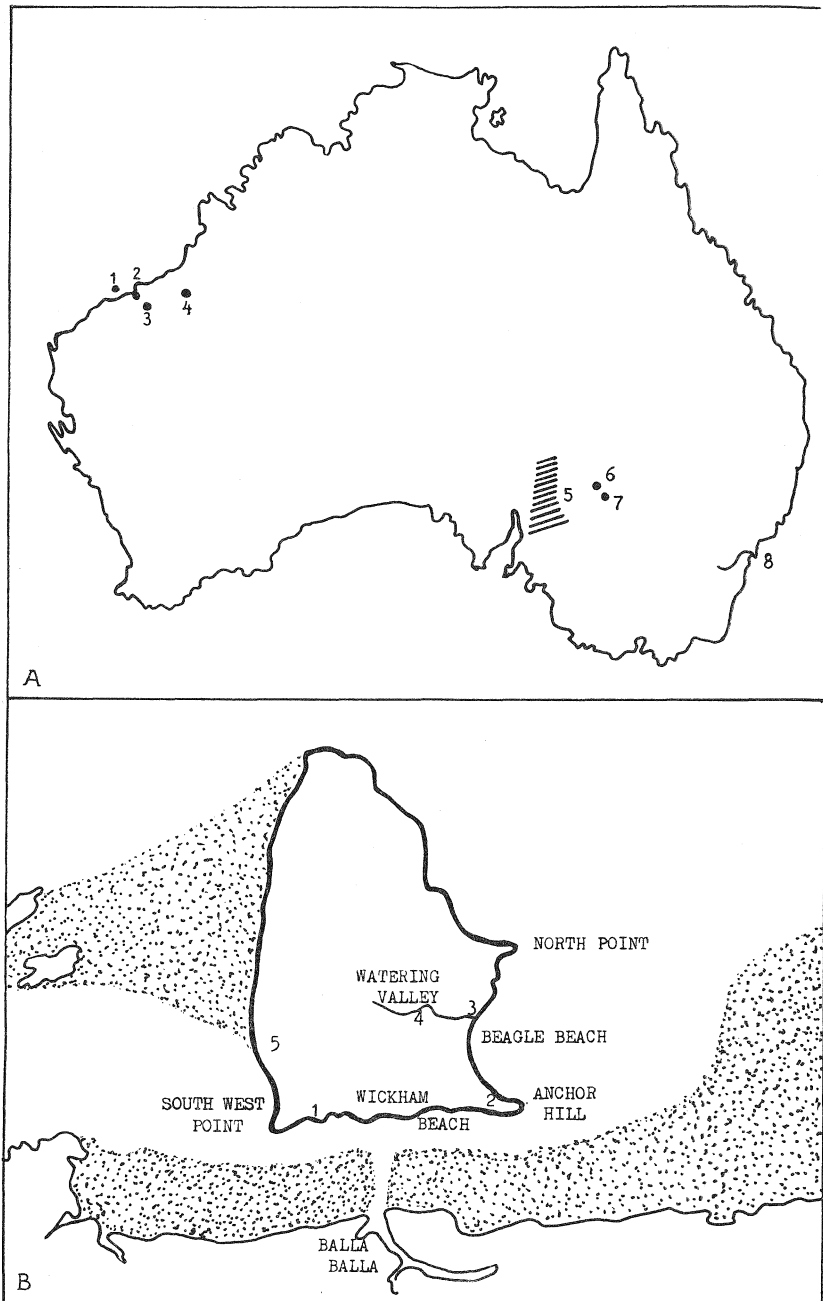


Fig. 1. A. Sites of rock engravings in Australia mentioned in this paper: 1. Depuch Is. 2. Port Headland. 3. Wamerana and Gallery Hill, Abydos. 4. Mt. Edgar or Mentheena. 5. Flinders Range. 6. Sturt's Meadows. 7. Mootwingee. 8. Sydney-Hawkesbury District. B. Diagrammatic map of Depuch Is., showing localities where engravings were recorded, all in the southern portion nearer the mainland. North Point, Watering Valley and Anchor Hill are old-established names, but Beagle and Wickham Beaches and South-west Point are names adopted in this paper to facilitate reference to these places.

The first scientific party interested in rock engravings to visit the island included the German anthropologists, Drs. H. Petri, A. Lommel and D. Fox (1951), from the Frobenius Institut, in 1938-39, who recorded figures on the southern shore and Anchor Hill (on which a stone cairn for navigation is situated). They stated that these engravings surpassed in careful execution and variety and richness of groups and compositions most of those known elsewhere in Australia, and previous writers were impressed by the immense number, high artistic quality and unusual nature of these engravings. They said that animals of the land and anthropomorphs were dominant, some insects were represented, and, as the marine fauna was in an overwhelming majority, the art belonged to a "saltwater" tribe.

During a trip to north-west Australia, financed by the Wenner-Gren Foundation for Anthropological Research, I visited the island twice in 1958 with Mr. A. Day, Native Welfare Officer at Port Hedland, accompanied on the second occasion by a party from Mundabullagana Station. A total of five days was spent on the island. During these visits I photographed engravings along the southern shore, on Anchor Hill, at the northern end of Beagle Beach, and in Watering Valley. Members of the party saw carvings elsewhere on the island, but we could not record them. In 1959 Mr. Day found a fine series on the south-west coast, of which he kindly sent me photographs to enable me to include the motifs in this paper.

The engravings were called *mani* by the Ngaluma tribe (Worms, 1951, 1072), in whose territory the island is situated. Their country of some 2,500 square miles of stony hills and spinifex flats extended for over 30 miles along the coast in the Nickol Bay area and 70 miles inland. They lived (Harper, 1886; Richardson, 1886; Withnell, 1901; Clement, 1904) by hunting, fishing and collecting plant foods, among which cakes of ground grass, acacia and mangrove seeds were an important item. They employed bough fences, spinifex grass fibre nets, stick frames and pits in hunting. The country was occupied in 1864 by white settlers. An epidemic of smallpox decimated the tribes of this region in 1865 and 1866, and it is probable that active interest in their ritual and rock art was seriously affected by the loss of many of their totemic clan headmen. Gold and other mining activities from 1880 onwards further disrupted tribal interests, and there were only 60 of the Ngaluma left when Radcliffe-Brown worked among them in 1910. The tribe is virtually extinct today.

#### DESCRIPTION OF ENGRAVINGS, FIGURES 2-346

In the following description the figures illustrated will be described in numerical order, with cross-references between the line drawings and plates. A discussion of the figures, techniques, styles, superimpositions and antiquity, meaning and function, artistic merit and comparison with other sites will follow.

##### Human Beings and Their Activities (See also 302-12, 314-6, 325-7, 329, 332, 337, 340-1, 343)

Fig. 2. Deeply grooved composition of large man, wearing five radiate ornaments on his head, armed with a shield and hooked boomerang; beside him are two boomerangs, a scalloped line and two small stickmen.

3. Intaglio of man.
4. Human figure, with a large bulbous projection between the legs which may be a female genital organ or a pubic apron. Crudely pecked intaglio. (Wickham, 1842, fig. 92.)
5. Pair of men, in outline, one of whom is holding a small mammal. Each has a long tapering penis. There are two boomerangs in the composition. They are engraved in a very prominent rock on the top of the southern side of Watering Valley, are well preserved, and in the same style as 127, 166 and 170. (Wickham, 1842, fig. 94.)
6. Pair of large and small human figures.
7. Small man.
8. A small stickman between two human figures, each with a large bulbous projection between the legs which may be a female genital organ or a pubic apron. Petri and Schulz (1951, fig. 10) thought them to be half-human and half-plant because of the radiate head-dresses.
9. Elongate figure of a man, showing testicles and long penis. Petri and Schulz (1951, fig. 9) suggested that it represented a man with a fish's tail.
10. Enigmatic composition, incorporating a human figure at the top.
11. Barred outline human figure.
12. Figures representing sexual intercourse between man and woman.
13. Well preserved intaglio of a turtle pecked over a weathered outline man.
- 14-19. Men of various types, of which 17 is well preserved, 15 is crudely pecked (like 337) and the others weathered. From 8 in. to 1 ft. long.

20. Composition of a large and animated figure of a woman and four small human figures. The widespread legs, and the small figure connected with the genital organ, indicate that this intaglio represents human reproduction, an unusual but important theme on this island. Worms (1951, 1077) recorded an engraving at Wamerana of a woman, with four very small human beings rather indistinctly engraved beside her as though they had just left her womb.

21-24. Pairs of human figures, in each of which is a large and a small figure. The figures in 21 to 24 probably represent the two brothers so prominent in north-western Australian mythology. 21 is well preserved, the others slightly weathered. From 8 in. to 15 in. high.

25. Enigmatic composition of an animal-like figure almost 3 ft. high with elaborate pendant decorations at top and bottom, joined by an upper limb to a little man armed with two boomerangs; above him is another man with a knobbed head ornament, and there are two pubic aprons, a turtle and a little man in the group. Petri and Schulz (1951, fig. 8b) thought this figure (and also 9) might represent a dugong with human attributes, because legendary salt-water creatures, which include sharks, dugongs and stingrays with human qualities and supernatural powers, form part of the mythology of Dampierland and other tribes of the north-west coast (Petri, 1939, 217).

26, 28-9. Stickmen fashioned by overlapping longitudinal incisions done with a sharp tool, such as the edge of a shell. They vary from weathered to well-preserved figures.

27. Man.

30. Pair of indeterminate creatures, each of which has a pair of short fore-limbs and thick hind limbs (or tail). One has a penis and a long ear-like projection on the head, and one has a bird-like mouth. They resemble penguins, but this bird did not inhabit the north-western coast.

31. Animated pair of human figures, with pear-shaped object. The larger figure appears to be a woman with a large bulbous genital organ.

32. Animated pair of human figures, in a pose which may represent sexual intercourse or a ritual dance.

33. Human figure, with neatly arranged hair (each strand of which is knobbed on the end like that on the Wandjinas of the Kimberleys) and a leaf-shaped appendage at the bottom which may represent the genital organ of a woman. The figure as a whole may be a composite design of human and animal, or may represent human birth.

34. A small man beside a large man wearing a knobbed ornament on his head. The big man is posed beside an outline stingray, and appears to be holding it, but as the intaglios and outlines belong to different periods of engraving the association may be fortuitous.

35. A hollow-bodied man, similar to those in the paintings of Napier Broome Bay recorded by G. Hill (Mountford, 1937) and Conjola, New South Wales (McCarthy, 1959, fig. 4, I).

36. Linked series of 10 little men.

37. Set of two little men, who appear to have been speared, between an indeterminate figure on the left and a bird track on the right.

38. Group of six unusual human figures, most of them armless.

39-40. Intaglios of human feet. This motif is not common on the island, and not more than three feet in a line were noted (see 238, 280 and 312). One foot beside an animal in a hunting composition is customary (see 100-1, 116). As it occurs in the outline, outline with lightly-pecked interior, and full intaglio styles, the human foot has been a motif throughout the period of engraving on the island. It is usually bigger than natural size and more toes than normal are common.

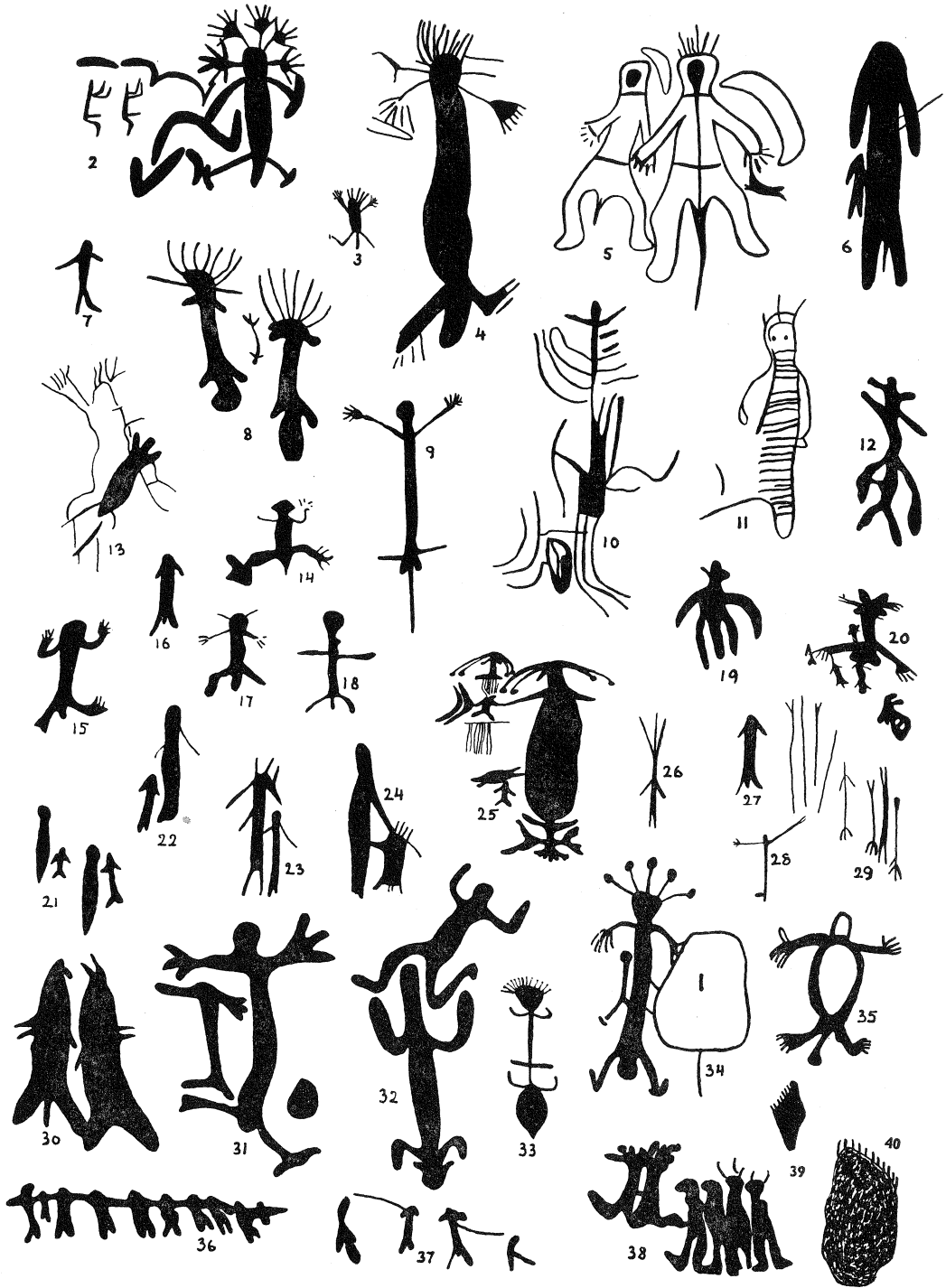
41-7, 50-1, 53-4 (also 312). Compositions of little men fighting with spears. The spears have plain or barbed heads, the barbs comprising a single row of from six to about 50. Some of these men carry a shield, and in some of the sets from one to three spears are shown piercing a man. The sets vary from weathered and faded to well-preserved, and include crudely pecked figures.

48. Elongate human figure between two tiny stickmen, with a long plain spear beside them.

49. One of several remarkable figures of a little man throwing a boomerang. This one is also armed with a shield.

52. Tiny man armed with spear and shield.

55-60. Sexual intercourse between man and woman. In three of the groups the woman has a large bulbous genital organ, and four of the figures are wearing pendant head ornaments. In 56 there is a set of three long thin arcs on each side of the man. 57 is weathered, but the



Figs. 2-40

others are well preserved. The curved penis extending from the man to the woman in 55, 58 and 60 is a device used in this subject among the Sydney-Hawkesbury engravings in eastern New South Wales (Campbell, 1899, pl. 24, fig. 4).

61. Man, with huge boomerang and lizard. The pecking on the boomerang is in close longitudinal rows.

62. Little man, wearing head-dress, pecked over an old outline turtle and boomerang.

63-67 (also 314). Men armed with boomerangs and shields. Similar portrayals occur at Mootwingee, in western New South Wales. They vary from weathered to well-preserved figures.

68. Man with lines attached to his body.

69. Stickman, wearing pubic apron, in the act of throwing a boomerang, and holding one in the other hand.

70. Little man, with cross on his head, holding two boomerangs.

71. A crudely pecked group of five little stickmen with large heads.

72-75. Men carrying indeterminate oval objects on their heads. The projections at each end of this object may be the flippers of a turtle, an important food and motif on the island, but the object may be of ceremonial or other meaning. The motif is an old one as the figures vary from a weathered to a well-preserved state. The thunderman featured in the bark paintings of north-eastern Arnhem Land carries an oval object on his head in a similar manner (Aust. Mus., E. 59913).

76. A large boomerang and two men, with a pubic apron below one of the latter, crudely pecked. (Wickham, 1842, fig. 16.)

77. Man and linear design.

78. Set of five men, each of whom is wearing a pendant head decoration.

79. Small intaglio figure of sexual intercourse between a man and a woman, beside a striped shield.

80. Man beside rounded object.

81. Group of five little men.

82. Man carrying a bag-shaped creature on his head.

83. Group of three types of human figures.

84. Little man with pair of boomerangs.

85. Man and boomerang.

86. Small group consisting of an indeterminate animal (left) and man (right, with a decorated penis), between which are several bird tracks, part of a boomerang, a set of parallel lines and a man or lizard.

87. Composition of stickmen and other figures.

### Hunting Compositions

88. Vertical set of three boomerangs, with anthropomorphic figure, beside a speared turtle.

89. Indeterminate group, which includes a small man and a spear.

90. Small man hunting large turtle.

91. Set of two intaglio men beside a large bandicoot-like mammal fashioned with a series of pecked gashes in longitudinal lines.

92. Two little men and a woman, intaglios pecked over a large barred outline turtle speared by a tiny man. The spearing episode was the original subject, over which the intaglios have been done.

93. Bird catching one of two fish.

94. A dingo, 18 in. long, with ball-like feet characteristic of this animal in Aboriginal art, catching a curlew. (Petri and Schulz, 1951, fig. 12.)

95. Man spearing animal.

96. Three tiny men spearing a large fish, with a small fish above.

97. Indeterminate outline creature, and a little man with a long spear or line.

98. Little man between large boomerang and conical object.

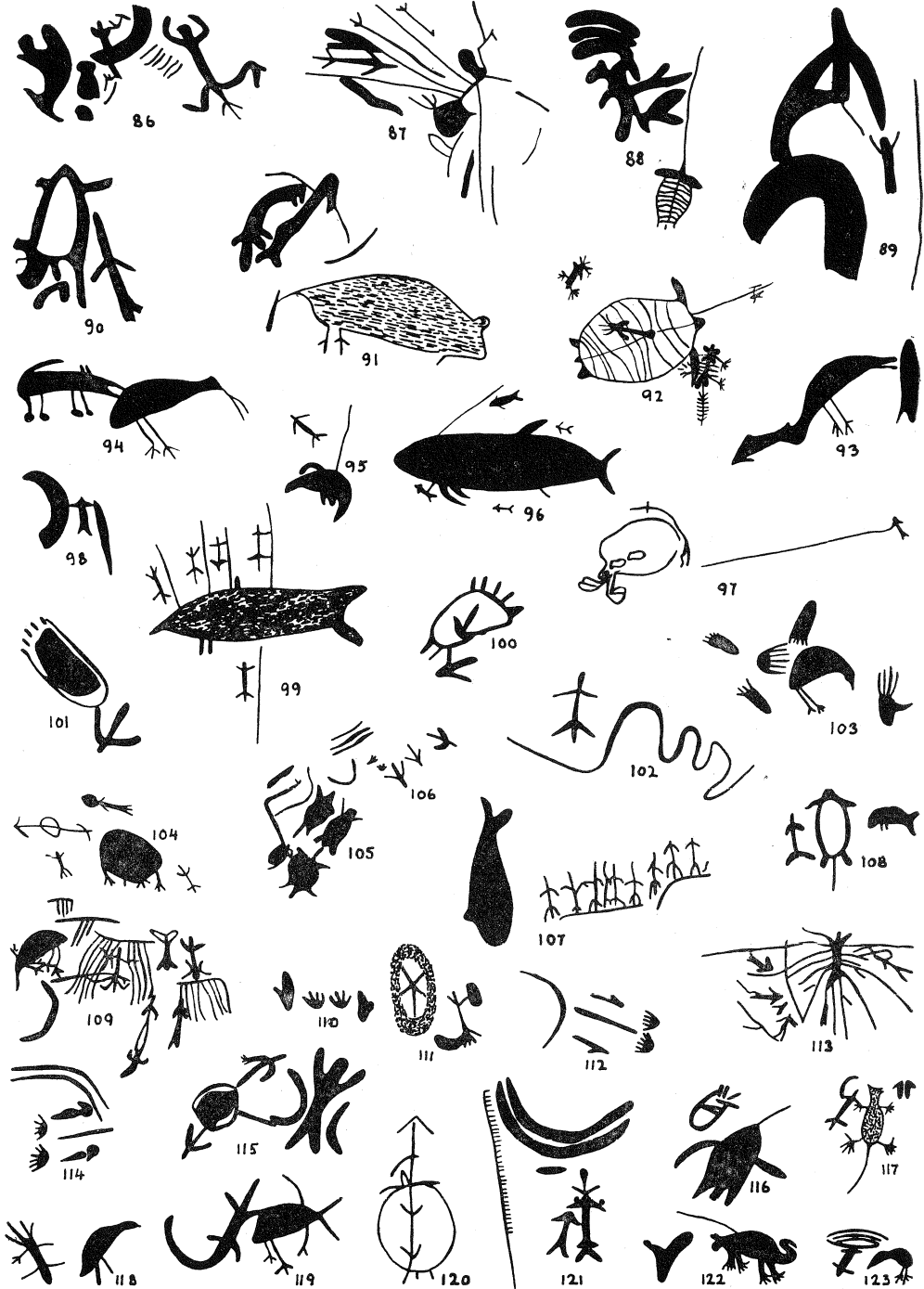
99. Two little men spearing a large dolphin.





Figs. 41-85

- 100-1. Deeply grooved outline tracks (like 325) of a bird hunted by a man.
102. Man and snake, lightly and crudely pecked.
103. Bird, with three of its tracks and three human tracks, lightly pecked.
104. Line of six little stickmen over which a large round figure has been pecked; beside them is a linear design and a big-headed man.
105. Three parallel rods above a boomerang, two small animal and three large bird tracks.
106. A group of four turtles and eel-like figures.
107. Nine little stickmen beside a large intaglio fish.
108. Man, with a fish and outline turtle.
109. Five little men, one of them armed with a boomerang, killing a bird. One figure appears to be two little men joined by their legs. In the composition are also to be seen a large boomerang, and four fringes. This extremely interesting group was illustrated by Wickham (1842, fig. 30), who thought the central figures depicted a man in a hut. The lines are engraved over part of the man, and it may represent a hunter concealed behind a screen awaiting his opportunity to kill the bird. It will be noted that the ends of the uprights on the screen project slightly above the bar (to which they are bound), whereas in all of the public aprons among the engravings on this island there is an even finish along the top strand. Withnell (1901, 19) said the natives erected two semi-circles of boughs around a waterhole, and drove kangaroos into a net suspended at one of the two openings.
110. Set of hind and foot tracks of a kangaroo or rock wallaby.
111. A little man holding a shield, with a curved object over his legs, standing beside a large oval object.
- 112, 114. Boomerangs beside the prints of the fore and hind limbs, and the tail, of a kangaroo or rock wallaby sitting down in sand or soft soil. This motif occurs at Yarlalweelor (Stokoe, 1959, pl. 26), Port Hedland, Mootwingee, Sturts Meadows and Flinders Ranges, and is characteristic of the Intaglio period.
113. A man with lines radiating on all sides from his body, surrounded by five smaller men, one of whom appears to be throwing a spear with a spearthrower. Deeply grooved.
115. Man between boomerangs, beside bird tracks and circular figure. Deeply grooved.
116. Outline human track beside an intaglio turtle.
117. Man killing a rock wallaby with a boomerang, a pair of the animal's tracks beside its head.
118. Decorated man beside a bird.
119. Lizard and bird with open beak.
120. A barbed line across an outline turtle.
121. Two small men, with triangulate heads, beside a barbed spear and a pair of large boomerangs.
122. Rock wallaby with a spear in its back.
123. Little man with a vertical set of three boomerangs above his head, and a bird.
- Mammals.** (See also 88, 91, 93-5, 117, 122, 300-1, 308, 317, 322, 327, 345).
124. Indeterminate animal with knobbed ornament on head.
- 125, 130, 132. Indeterminate animals.
126. Kangaroo or rock wallaby, poorly proportioned. Crudely pecked.
127. An unusually fine line figure of a kangaroo or rock wallaby, with intaglio feet. Similar to 5, 166 and 170 in technique.
128. Rock wallaby.
129. Jumping mouse. Lightly pecked. (Petri and Schulz, 1951, fig. 13.)
130. Possum-like mammal.
131. Rock wallaby, with a heavy outline and lightly-pecked interior.
132. Indeterminate mammal.
133. Rock wallaby.
134. Kangaroo's hind-foot track.
135. Pair of kangaroo's hind-foot tracks.



Figs. 86-123

**Birds** (See also 318-320, 327, 340, 345).

- 136-7. Sea Curlew.
- 138. Emu, body lightly and legs completely pecked.
- 139. Great-billed Heron.
- 140. Beach Stone Curlew.
- 141. Portion of bird in outline.
- 142-143. Sea Curlew, body lightly and legs and head completely pecked.
- 144. Ibis.
- 145. Nanking Night Heron.
- 146. Portion of large, long-legged bird.
- 147. Small emu.
- 148-151. Clutches of birds' eggs. They are all well-preserved, and 151 is patchily pecked like 326. At Port Hedland and elsewhere on the mainland these clutches of eggs are often associated with emus' tracks, and the number of eggs in each set is less. There appear to be too many eggs in some of the Depuch Island clutches for the emu, and there is a possibility that some of them may belong to turtles.
- 152. Large bird tracks. These are scattered throughout the engravings, in from weathered to perfect condition. They do not occur in long series.
- 153. Bird-like figure.

**Insects**

154. This strange creature is one of the most beautiful rock engravings I have seen in Australia. It is now a weathered pale green figure on Anchor Hill. When originally engraved the pecking removed the thin red patination of the rock, and revealed the bluish-green rock beneath. A similar figure in an outline dotted style occurs at Gallery Hill, Abydos (Worms, 1954, pl. IVb). They are, in my opinion, engravings of the praying mantis, about which a legend was recorded by Love (1936, Chapt. XII) among the Worora. Petri and Schulz (1951, fig. 11) thought the Depuch Island figure represented a horned animal, or a dancer wearing an antler-like ornament on his head in a totem rite.

**Amphibia** (See also 333, 337, 343)

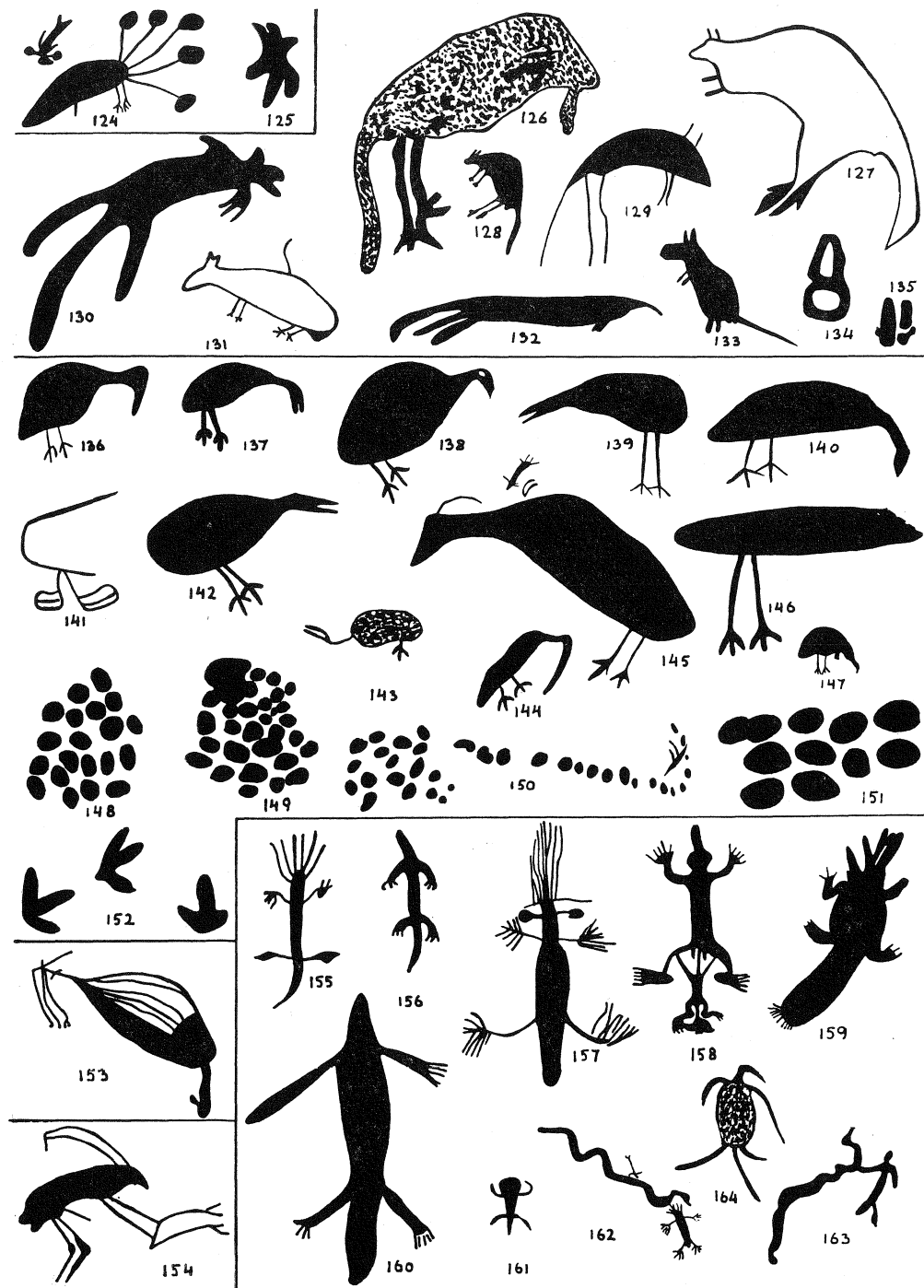
- 155. A Njangumada man told me that a similar figure to this among the Port Hedland engravings represented a species of "hill" lizard. The main design apparently depicts sexual intercourse between lizards, with a third figure at the bottom which suggests, in addition, the idea of birth.
- 156-60. Lizards of various kinds. The two stalked appendages, and fringe, may be on the head or tail of 157. They vary from weathered to well preserved.
- 161. Young frog.

**Snakes** (See also 197-202, 330, 332, 344)

- 162. A snake, with a stickman, and a bigger man with well-defined fingers, toes and hair.
- 163. Man with snake, which he appears to be holding.
- 164. A "fat" goanna. In heavy outline, with crudely pecked interior.

**Fish and Marine Mammals** (See also 328, 334, 336)

- 165. Sawfish and another fish.
- 166. School of young fish (intaglios), with a large outline oval figure.
- 167. Dugong above two sperm whales.
- 168. Indeterminate species.
- 169. Dolphins.
- 170. Indeterminate species. The outline technique is the same as that in 5 and 127.
- 171, 174, 178. Indeterminate species. Some are weathered and others well preserved.
- 172. Trevally.
- 173. Tiny man with spear against belly of large sperm whale.



Figs. 124-164

175. Shark.

176-7, 179. Sperm whales, one of which is spouting. Lightly pecked.

180. Indeterminate species, in broad outline band style.

181-4, 185-7, 190. Indeterminate species. Several of these figures are lightly pecked, and 185 is partially pecked over older indeterminate figures. Most of them are well preserved.

188-9. Sawfish.

191. A set of five stingray livers, all engraved much larger than natural size. There is a small man beside one of them, and a tiny intaglio of a stingray is also shown. Some are lightly and others completely pecked, and they vary from weathered to well preserved.

192. Two outline stingrays, one of which has a weathered grooved outline, the other a lightly pecked outline.

#### **Invertebrates** (See also 324, 342)

193. Two large mangrove crabs (one is Wickham's, 1842, fig. 65).

194-6. Three indeterminate bag-shaped creatures. They are all lightly and sparsely pecked, and some of them may be beche-de-mer.

#### **Snakes** (See also 162-3, 330, 332, 344)

197. Python catching rock wallaby.

198. Python.

199. Man, with pair of large boomerangs, from whom a snake extends in a sinuous loop which encloses a little armed man.

200. Two snakes.

201. Coiled snake.

202. A sinuous snake beside two little men, who are wearing radiate and cross-type head-dresses, and another small figure.

#### **Turtles** (See also 90, 116, 105, 108, 297-9)

203, 230. Outline, with lightly pecked interior style. They vary from weathered to well-preserved.

204-5, 207, 211-2, 214, 216, 231. Intaglios. The large foot on 204 (the rock has broken away, carrying the other foot), the men spearing turtles in 207 and 231, and the swimming postures of 212 and 216 are notable. (212 is Petri and Schulz's 1951, fig. 15.)

206, 217-8, 224. Outline with barred or gridded interior style. A little man is spearing the large turtle in 224, which is deeply grooved.

206, 225. Outline with dotted interior style, with the two in 206 in swimming posture, while 225 is poorly shaped.

226-9. Female turtles containing eggs. 226 has two sets of flippers and tail, and 229 is between a man and a boomerang.

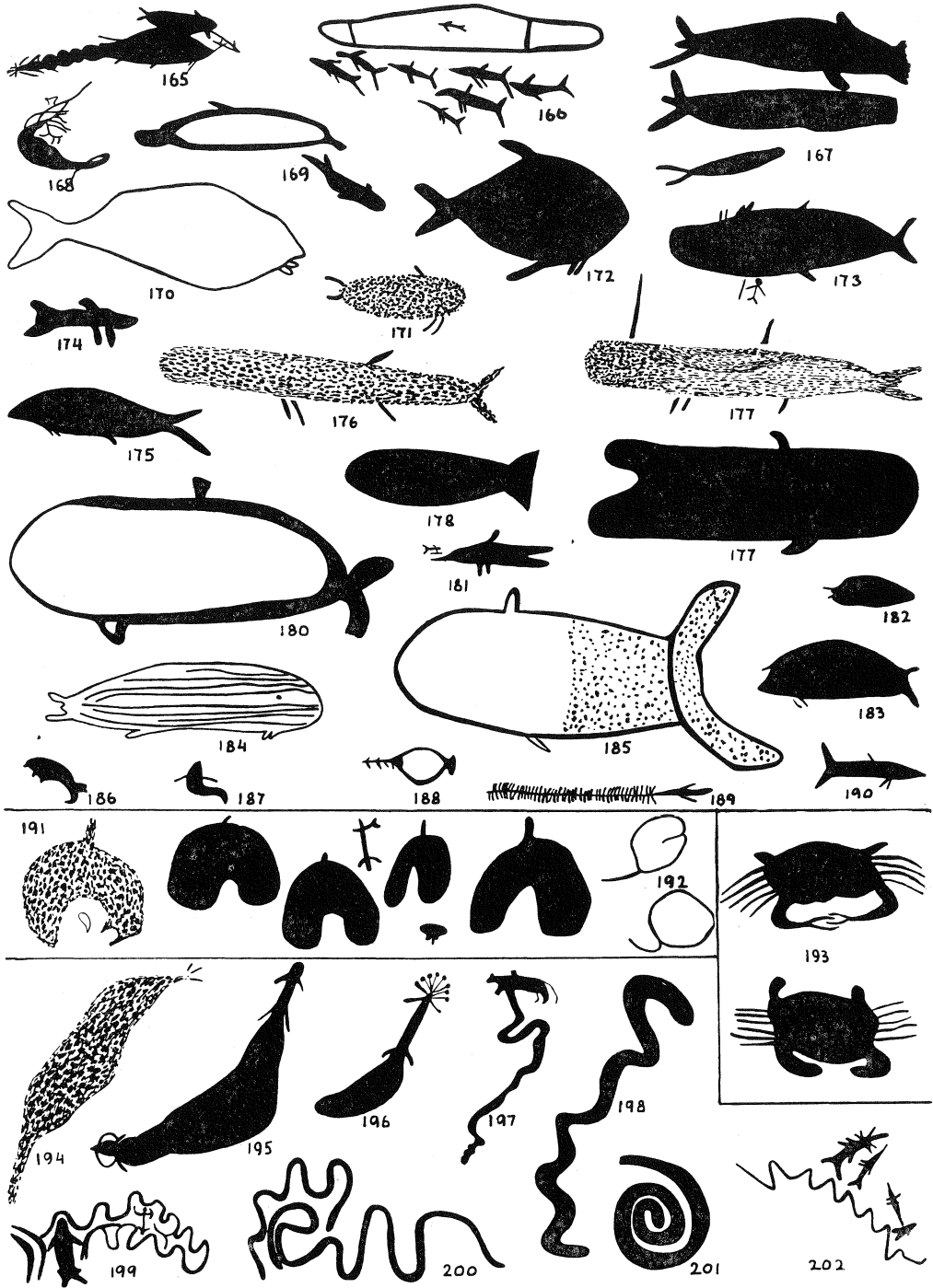
208-10, 213, 215, 219-27. All in the outline style, with solid flippers, head and tail. Two of them are captured by little men, one has a median line down the body, and two have a broad intaglio as an outline. The beautifully portrayed swimming action of the two turtles in 221, and the tiny little men beside the two large turtles, are noteworthy. Similarly, 205 (also 299) is engraved on a sloping rock in a pose of swimming downwards through the water.

222-3. These bear line designs of an unusual kind; 223 was probably intended for a turtle, and is lightly pecked.

231. A lightly pecked intaglio with solid head and flippers, and heavy outline.

#### **Weapons** (See also 2, 41-70, 76, 85-122, 199, 207, 224, 228, 231, 275-7, 312, 314-6, 322, 324, 327, 335-6, 343)

232. Boomerangs of various kinds, mostly from natural to larger size, some being about 3 ft. long. They vary from slender to broad kinds, and include a sharply-angled form. A throwing stick (top middle), and two boomerangs with a knob on the outer edge, are included.



Figs. 165-202

**Pubic Aprons** (See also 76, 109, 345) and Ornaments.

- 233. Selection of the varieties of aprons shown among the engravings.
- 234. Fringed ornament.
- 235. Little man wearing fringed ornament.
- 236. Grid design of kind painted and incised on chests of men.
- 237. Fringed radiate ornament, deeply grooved.

**Radiate Designs**

- 238. Composition of radiate and human figures, with human feet.
- 239. Unique variety of radiate figures.
- 240. Large radiate figure.

**General**

241 to 292 comprise motifs of an indeterminate or miscellaneous type, and others found by Mr. Day which could not be fitted into their proper groups in the line plates.

241-4. Seaweed-like figures, lightly pecked. A similar motif occurs on Chasm Island in a red silhouette painting (McCarthy, 1960, pl. 3D.)

245. The only series recorded of a set of inverted U-figures, a well-known motif in Central Australian art.

246-52. Indeterminate, varying in their state of preservation. 250, 252 are crudely pecked.

- 253. Oval shield with zigzag design. Only example recorded. Lightly pecked lines.
- 254. Pair of ovals with median line.
- 255. Fringed oval or insect.
- 256-7. Linear designs.
- 258. Indeterminate insect-like figure.
- 259. Man and indeterminate object. Lightly pecked.
- 260. Indeterminate bag-shaped figure.
- 261. Line design. Deeply grooved.
- 262. Indeterminate design.
- 263. Linked ovals.
- 264. Line design.

267-8. Pairs of objects resembling *kurdaitja* shoes, showing the upper webbed covering of the feet and the lacing. Such objects could well have been traded to the Indjibandi tribe along the same route as the hooked boomerangs and *tjuringa* which came from the Central Australian region through the desert country to the south. Skin and bark sandals were used to the south of the Indjibandi (Davidson, 1947). The fact that they are shown in pairs favours their interpretation as *kurdaitja* shoes or sandals, and not shields or sacred boards.

266. Set of four arcs. These occur in various localities on the island, and vary from a weathered to a well-preserved state.

269. Insect-like figure.

270. Double circle, which occurs in several localities, but is uncommon and unusually well preserved.

273-4. Designs; 273 has shallow, and 274 deep, grooves.

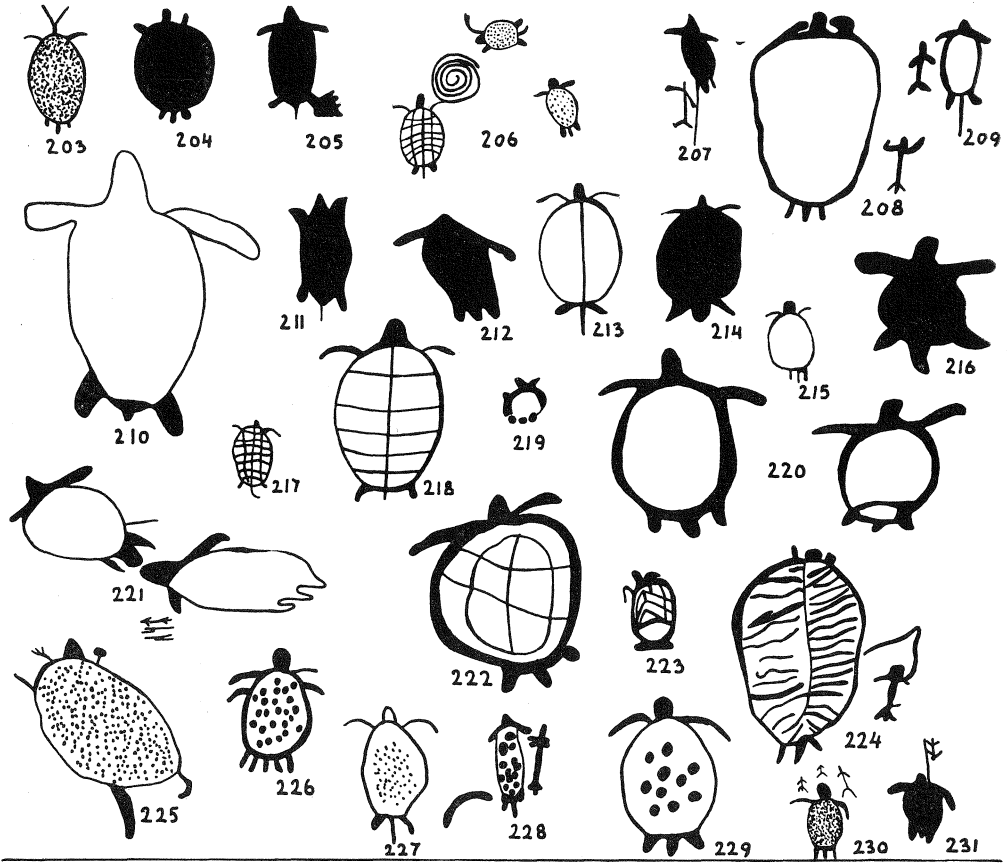
275. A series of over 45 little stickmen, some armed with a spear, standing in a circle around two sets of parallel lines which run from a central line. The significance of this group is unknown.

276. Battle between a dozen or so tiny stickmen armed with boomerangs. Two of them are wearing head-dresses, and among the men is a zigzag line. Lightly grooved.

277 (see also 311). Another series of tiny stickmen, some armed with spears, each standing at the end of lines radiating from the centre to the circumference of a circle. Some larger human and other figures are clustered together in the middle of the group, and on the right is a large bird track between other men. The significance of the group is unknown. (Wickham, 1842, fig. 16.)

278. Man with unusually large hands and feet.





Figs. 203-240

279 (see also 339). Group of about 28 little stickmen with very large heads, among whom are seven others, each carrying an oval pronged object, and two lizards.

280 (see also 312). Outline human feet, with 7, 9 and 12 toes, and a little man. A similar set in 312 has five and six toes.

281-2. Ovals. These occur in various localities, but are uncommon.

283. Feather-plume hair ornament. Five of these are worn by the large man in 2.

284. Indeterminate.

285. Stickman under intaglio fish.

286. Emu track at end of design.

287. Indeterminate figure.

288. Eel-like figure, with stickmen at each end.

289. Elongate oval figure, with stickmen at each end.

290. Pair of elongate ovals.

291. Simple cluster design.

292. Catlike mammal. Lightly pecked.

### Plates

293. Beagle Beach at low tide. A gallery (fig. 1B, No. 3) of engravings is located on the vertical and horizontal rocks in the middle distance, at the northern end of the beach.

294. Portion of the gallery on Anchor Hill, at the northern end of Beagle Beach. 25 and 288 are shown in the photograph, and there are many fine engravings in this area. Some have been obliterated by sea birds' dung.

295. Watering Valley, looking towards the sea. Note the big waterholes in the rocky bottom. A great number of engravings are depicted on the boulders along both sides of the valley.

296. Some of the engravings, including 94 and 212, on the boulders on the foreshore of Anchor Hill. Note the striped shield on the vertical rock in the middle background.

297. Old engraving of a large turtle in barred outline style done on a ridged convex rock to incorporate the shape of the animal in the portrayal. This is the only example noted of a contoured engraving, all of the others being in a flat plane.

298. A very old engraving of a large turtle on a cracked boulder at the northern end of Beagle Beach.

299 (see also 210). An artistic portrayal of a turtle engraved on a concave sloping surface of a boulder on the foreshore near the western end of Wickham Beach. It is in outline, the two hind flippers and tail being rubbed or abraded. Lightly grooved.

300. Jumping mouse.

301. Rock wallaby, with spear in belly, in outline with dotted interior style.

302. Indeterminate intaglio of a fish-shaped figure with long hair, small head with one ear, long neck and body with two small fins, and indistinct lower end. There are two rod-like projections from the head, and one from the neck. It may represent a composite human and fish figure.

303. Woman with long hair and well-marked hands and feet, but no breasts, giving birth to a child. Lightly pecked intaglio.

304. Fish-like figure, with pendant head-dress; joined to its tail is a turtle-shaped figure, from which another series of knobbed pendants extend. Apart from the head and tail attachments, the main figure resembles a dugong or dolphin with the two lower fins projecting like arms from the sides of the body. The main figure in 25 is similar, but it has no head, and the pendant head-dress rests directly on the top of the neck. The attachment on the lower end of the oval body is an openwork design of similar shape to that of 304. These are apparently spirit or mythical creatures of some importance. (Petri and Schulz, 1951, fig. 8a.)

305. Man and woman engaged in sexual intercourse. Although at first sight this figure suggests an insect with six legs, it will be noticed that the top is a man with rayed hair or forehead ornament, short arms, and large human feet on his straight legs. The woman is an undecorated figure lacking hands and feet. Lightly pecked intaglio. This type of composite figure is typical of Indonesian and New Guinea art.

306. Intaglio of man with knobbed head-dress and large feet and genitals, carrying a boomerang in each hand. The limbs are slender, and the posture is animated.



Figs. 241-292

307. Intaglio of man with large ears, well-defined hands and feet with five fingers and toes, and large penis.

308. Slender man with small head, curved arms, and very long legs, lacking hands and feet, beside an indeterminate animal. Lightly pecked intaglios.

309. Head-dresses of the pendant type worn in 25, 55-6, 58. There is a small man holding and wearing pendants on bands at the top, and a large head-dress below him.

310. Over 30 little stickmen, a large number of whom are in a group at one end of, and others intermixed with, a set of eight parallel lines. One large human figure is engraved in a pecked technique over the design and may or may not belong to it. This is an old group on a cracked rock surface, and probably depicts a ceremony.

311. See 277 for explanation.

312 (see also 41-54). Two men spearing another man with barbed spears. A little man at the top or end of a bag-like figure, and three outline human tracks, are also shown.

313. Little man, with broad body and knobbed head-dress.

314. Four little stickmen, each with a rayed head-dress, carrying a boomerang in each hand. One has two boomerangs in one hand and one in the other. There is a plain spear beside the group. See also 63-70, 276.

315. Spear combat between a short and a tall man, both of whom have slender limbs and bodies, a rayed head-dress and long penis. Another small man of similar type is shown below the tall man. The latter has been speared in the duel. An old engraving on a cracked rock surface. Petri and Schulz (1951, fig. 10) thought these men to be half-human and half-plant beings because their head-dresses resemble plants.

316. Several dozen little stickmen, armed with plain-headed spears, engraved on the top and front of a boulder. Other figures in this old composition are too weathered to identify. Beside and over some of the above stickmen have been pecked full intaglios of a human foot (top left), a pair of large boomerangs, and another series of little round-bodied men armed with boomerangs. These are all well preserved.

317. Intaglio composition of the hind and fore foot tracks of a rock wallaby (left), a line of crescentic, oval and triangulate shaped figures (middle) and a conical figure with a set of bird tracks (right).

318. Intaglio of Great-billed Heron or Sea Curlew.

319. An unusual intaglio of a bird lying on its back. The long wing and leg on one side contrast with the short wing and leg on the other side.

320. Intaglio of a pair of Sea Curlews feeding, and below them a bird with a bulkier body which is probably an emu.

321. The larger figure, with its well marked hands and feet, dog-like head and long knobbed penis, is a puppy-like figure and may be a young dingo. The other figure is puzzling; looked at from one end it is a stickman with knobbed feet and penis, and from the other end a stickman holding two spheres in his hands, between which is a rounded head on a thread-like neck.

322. Intaglios of a hunter spearing a wallaby or kangaroo, the man and the animal being linked by the spear. This intaglio is pecked over an old set of little men armed with spears.

323. One of a line of five pits, up to 8 ft. wide, just above high-water mark on the southern shore of the island. The sides of two other pits may be seen at the top and bottom of the photograph. The boulders were taken out by the Aborigines to a depth of from 2 ft. to 4 ft. Cockle shells from the tidal flats adjoining the mainland are scattered about the bottom of this pit. Many engravings of turtles in various styles, and of little men, occur at this spot, which is near a gully not far from South-west Point. Further eastward are several more of these pits with sandy bottoms, and others occur on Anchor Hill. It is probable that they are totem centres.

324. Hunting composition of a little man spearing a big Mangrove Crab, with two other unarmed men, one of whom is wearing a rayed head-dress, in the picture. Also on this rock are engraved one set of 20 and one set of four eggs.

325. Two deeply-grooved men, one of whom has a large hand, with a third and smaller figure, probably human.

326. Little man carrying a large sphere, probably a turtle's egg. It may also be interpreted as a lizard eating the contents of an egg. Two human feet are engraved on the same rock.

327. A speared kangaroo, and an emu in an alert pose. Both life-sized intaglios. (Wickham, 1842, figs. 67 and 87.)

328. An intaglio composition of seven fish-like figures beside a large indeterminate oval object.

329. Two dozen or so little men—of both slim and round-bodied types, two of whom are wearing head-dresses—arranged around a large sphere, probably the gigantic egg of a turtle, like that on the head of the little man in 326. Lightly pecked intaglio.

330. Intaglio snake 5 ft. long (and bird track, lower left) engraved over an indeterminate line figure. Weathered figures on a rock beside one of three large pits 6 ft. wide and 4 ft. deep, made by the Aborigines on Anchor Hill, and similar to 323.

331. Set of five figures which include a stingray's liver. Three figures, one of which has two sets of arms and a rayed head-dress, look like gecko lizards at first sight, but are probably human beings with large genitals. They are similar to 4, 8, 34, 55-6 and 58.

332. At the top is a large bird holding a long oval object in its beak, and with a large knobbed penis. Below it are a snake about 5 ft. long and five little stickmen in either a hunting or ritual composition. Weathered intaglios.

333. Lizard, fashioned with a marked gashing technique.

334. Two large fish.

335. Lightly pecked boomerang, with an oval area of scattered peckings below it.

336. A neatly-shaped intaglio of a large fish pecked over an old and weathered composition of a dozen or more little spearmen standing in a semi-circle around a slightly larger man, who appears to be transfixed with their spears.

337. Roughly pecked intaglio of a lizard.

338. View of a hillock on the south-west coast, a site rich with engravings, found by Mr. A. Day. Those shown include a grid design, pubic apron, emu and human foot, snake, boomerang, emu and hollow-bodied man, little men both singly and in linked series of five and seven, and others.

339. Another richly-engraved site on the south-west coast, found by Mr. A. Day. The figures include the Great-billed Heron, man carrying pronged oval object, little men with large round heads, little man with bulbous penis, little woman with large circle and dot for genital organ, little people in sexual intercourse and a lightly pecked and faded boomerang, all on the left and middle rock surfaces; on the rock face on the right are two large, lightly pecked and faded emus, beside which are several little men and their tracks; over this hunting composition is engraved a graceful stick figure of a man wearing a herring-bone type head-dress and carrying two hooked boomerangs in each hand, with a further pair of them projecting upwards from his waist. In the lower left is a rock bearing the series of big-headed men shown in 279.

340. The main set of intaglio figures on this rock comprises a remarkable trio of two men with well-defined feet and penis, and wearing herring-bone type head-dresses, holding on their joined hands a third and smaller human figure with a big round head fringed on both sides and bearing a head-dress. He has a boomerang in his left hand. There are various other little human figures on this rock, and the group on the right includes men armed with spears and boomerangs hunting a small mammal.

341. A large barred outline turtle, with lightly pecked head and flippers, engraved on a rock surface that has cracked since the engraving was done. Elaborate intaglio figures of a woman and two men are engraved over the turtle.

342. Intaglio of a Mangrove Crab.

343. Intaglio set of a goanna, with well-defined long toes on its feet, hunted by three little men, one of whom has a big curved and bladed club. This composition is engraved over the tail of a large outline fish and a lightly pecked oval. The author has recorded similar intaglios of goannas at Port Hedland.

344. Intaglio snake coiled around a rock.

345. Emu and Rock Wallaby intaglios pecked over a pubic apron. [I did not locate Wickham's figs. 6, beetle; 61, native dog; 71, bird of prey seizing a kangaroo rat; and 32, shark with pilot fish.] Fig. 346. Wallaby and fish, excellent examples of the fully pecked intaglios.

### Sizes

Time did not permit of measuring the many figures recorded. The human figures vary from stickmen 6 in. long to larger figures over 4 ft. long. The mammals, birds, fish and lizards range from tiny figures to almost life-size ones, and many of them approximate the latter. There are no gigantic anthropomorphs or animals depicted, the whales, for example, being no more than 5 ft. to 6 ft. long. Some of the stingrays' livers and pecked boomerangs are larger than life-size. The shiny disk shown in some of the photographs is a camera lens cover 1½ in. in diameter.

## DISCUSSION

**Anthropomorphs**

There is a highly imaginative approach to the depiction of the human figure, many of which show considerable movement and animation, heightened by the specially selected rock faces in which they are engraved. The pair of big outline men (5) are a good example.

Although fingers and toes are not usually shown, well-defined hands and feet with from three to six digits are not unusual. On the intaglio human tracks, however, up to 11 toes are included. No attempt was made by the artists to indicate the eyes, nose and mouth by deeper grooving than the rest of the intaglio, as was done in inland sites. The majority of the figures are facing the viewer; a side view is seen occasionally, but no seated figures were observed. In general, the bodies of the anthropomorphs are rather straight-sided and omit the protuberant features of the human figure. It is the posture, or the shape suggested by the pose, that the artist has concentrated on in most of the portrayals, among which a straight up-and-down figure with arms and legs at a similar angle is perhaps the commonest type. Most of them are naked, but some are wearing a pubic apron. Man is portrayed in an extraordinary variety of forms and activities, among which fighting, hunting and ritual dominate the subjects. The varieties are as follow:—

- (1) Stickmen, stiff and unimaginative, not as gracefully drawn and posed as in paintings of the Kimberleys and western Arnhem Land. No women are included. The arms and legs are either at the same angle, or the arms are horizontal. They are engraved in haphazard sets, in linked series, in hunting, fighting, dancing and ceremonial groups. (43, 47, 53, 67, 99, 104, 107, 118, 275-7, 279, 310, 314, 332, 339.)
- (2) A thicker human figure, often short in stature, in a variety of action postures, frequently armed with a shield, boomerang or spear (7, 14-8, 21-2, 27, 36-7, 41, 44-6, 50-4, 63-5, 72-4, 76, 78, 80, 82, 208-9, 224, 278, 280, 312, 326, 329, 336.)
- (3) A tall neckless figure, with a look of power and strength in the shoulders (6).
- (4) Hollow-bodied, with big penis (35), a rare type.
- (5) Elongate, with long arms and fingers, short legs, big testicles and long thin penis (9, 28, 285).
- (6) A thick and often curved-bodied type, with short limbs, fine long lines for the hair, thick bag-like genital organ (8, 82) or pubic apron. In one of these figures (4) the hand is in the shape of the radiate head ornament in (2) and of the hands and feet of a spirit figure predominant in the Port Hedland engravings (48, 31-2, 34, 55, 58, 88).
- (7) A rare type with a triangulate head, and head and shoulders merged to eliminate the neck (118).
- (8) Little stick and a few thicker-bodied men with big round heads (71, 273).

Several features of the human figures merit comment. The hair is shown in long fine lines (4, 33), and many of them carry weapons. The head ornaments include pendant (25, 55-6, 58, 78), radiate (2, 26) and knobbed types (34). The "corroboree" posture is not uncommon, and there are many unique and unorthodox forms like 10-1, 19, 38, 49, 290 and 323.

One of the features of the anthropomorphs is the depiction of static pairs of men of which one is usually bigger than the other (5-6, 21-4, 31, 34). These pairs probably represent the two brothers characteristic of north-western Australian mythology (Piddington, 1932, 47-51; Davidson, 1949, 93; Worms, 1954, 1083), but the Ngaluma myth about them has not been recorded. They are known as Mungan by the Ngarla and as Bagadjimbiri (the place where they originated on Anna Plains) by the Njangamada. They travelled widely, altering the landscape here and there, creating springs and totem centres, instituting initiation ceremonies with circumcision by a stone knife, singing songs about the animals, places and other things they saw, and finally going up into the sky after death. The interlocking key design belonged to their bulroarers. The Ngaluma and Kariera were uncircumcised because the brothers found their skin too hard to cut. It is more than probable that these pairs represent the mythical brothers rather than the large man and small wife motif found among the paintings on Groote Eylandt (McCarthy, 1960) and engravings at Port Hedland, and exemplified by the Lightning brothers and wife at Delamere, Northern Territory (Davidson, 1936).

The not uncommon depiction of sexual intercourse, and of large genitals on both sexes, indicates that the theme of intercourse was highly ritualized, with an accent upon reproduction and fertility, a matter further discussed below. Petri and Schulz (1951) thought that some of these figures represented the reproduction of insects, or hermaphrodite-like legendary sea creatures with human qualities. This is a different style of art to that of the inland sites, of which Worms (1954, 1801-3) has pointed out that the exaggerated genitals, and the importance of sexual intercourse as a motif, are expressions of the Gurangara, the culminating rite of the

Kunapipi ceremony which spread westward and northward from the Great Sandy Desert. These coitus engravings are the latest series at Gallery Hill, Wamerana and other sites, where they represent the most westerly penetration of this cult, which is connected with Mangula and her male consort Djanba. Worms is convinced that this Kunapipi cult did not reach the coast at Port Hedland, where coitus engravings do not occur among the human figures. Those on Depuch Island, however, are thus either connected with the Gurangara cult or represent a different mythology in which coitus was emphasized.

Fighting is an important subject in this art (41-54, 63-70, 313-4, 336). Most of these compositions appear to represent spear ordeals in expiation of a crime, or for men absent when a relative died and who were not allowed to speak until they underwent this rite (Harper, 1886, 289). There are not enough men participating in them to represent battles between groups. It is noticeable that both spears and boomerangs were used by the stickmen and other warriors, but that the boomerang is usually the weapon figured in the pecked-intaglio period, probably because it is such an attractive motif.

The big-headed men form an important subject on this island, and 71 and 273 are excellent examples of them. The key to their interpretation lies in 326 and 329, where a large sphere, with an unpecked area representing a hole or nucleus left in the middle, is shown being carried or surrounded by little men. I believe this sphere to be the egg of a turtle, greatly magnified in size in relation to man, because of its economic and ritual importance, and because in most of the hunting compositions the principle of tiny men hunting large animals is followed. It is also of interest to note that some of the turtles are shown with eggs inside their bodies, as in 226-9. This interpretation may explain the meaning of the group in 273 as a series of turtle-egg-headed men, some of whom are carrying turtles. The sphere could represent the egg of a bird or lizard. Mr. Day has informed me that he has seen, in the north-west division of Western Australia, a ring of little men engraved around a huge round boulder which probably represents the egg of an emu or turkey on the mainland.

#### *Hunting Compositions*

These are of great variety, and are more abundant in this island's art than in any other known engraving site in Australia, excepting the outline engravings of the Sydney-Hawkesbury district, eastern New South Wales. They include the hunting of turtles, bandicoots, rock wallabies, kangaroos, mangrove crabs, dolphins, goannas, snakes, emus, a variety of birds which inhabit the tidal flats, various species of fish and some indeterminate animals.

The weapons used are the spear and the boomerang. Apart from depicting the hunter and animal technical devices employed, which are typical of Aboriginal art generally, include: the linking of the hunter and animal by the weapon (99, 322, 324); portraying the animal with its and the hunter's tracks (103); showing the hunter's and animal's tracks only (100-1); little stickmen or thicker-bodied men hunting very big animals (99, 117, 322, 324, 327, 332); engraving the animal's tracks beside a spear or boomerang (106, 122, 114). Animals preying on one another are shown in a dingo killing a curlew (94) and a bird catching a fish (93), and various sets of animals are commonly shown beside one another (119, 317, 331).

These intaglio hunting compositions resemble very closely those among the outline engravings of the Sydney-Hawkesbury district, especially 322 and 327 (McCarthy, 1944-59). In the latter area the hunter and animal are usually natural size, but where the animal is of gigantic proportions the ratio of small hunter and large animal operates in both areas.

### **Zoomorphs**

#### *Mammals*

These are comparatively few in number and are limited to the mainland kangaroo (126-7, 327), dingo (94), possum (130), jumping mouse (129, 300), one of which has a tail tassel, and the island rock wallaby (122, 128, 133, 301, 322, 345). Several mammal figures are indeterminate. Three fingers and toes are sometimes shown, but usually there are none. Apart from the hunting compositions, engravings of mammals are not as numerous as are those of birds and fish. Most of them are posed in a standing posture, but the possum (130) and the two mammals (132, 300) are alert action studies.

#### *Birds*

Apart from the emu (138, 146-7, 327, 348) of the mainland, all of the birds engraved are wading species which inhabit the tidal flats extending from the mainland shore. Most of them are posed bending forward, often with beaks open as they do when feeding, are plump-bodied, and possess three-toed feet. The emus are shown feeding (147) and standing on the alert (327), and they form a comparatively uncommon subject here. On a number of engravings the body is shown on one face of a rock while the neck stretches round at right angles to another face on which the head is engraved.

### *Fish and Marine Mammals*

The seas of this region abound in fishes. Netting and spearing in the shallow waters were the principal methods of catching them, as hooks were not used. Several unusual figures of sawfish (165, 188-9) were found. The stingray is abundant on the tidal flats but is a rare subject among the engravings, only one small intaglio and two outlines of them being recorded. Engravings of sperm whales are probably due to their being stranded in shallow waters on the tidal flats (as there is a 25 ft. drop of tide in this region), thus providing a feast for the Aborigines. Dolphins are also a rare subject.

Turtles are among the commonest subjects on the island. From one to six or more may be seen engraved on adjacent rocks, most of them portrayed in a swimming posture, and the variety of styles is noteworthy. They could have been speared from the rocks of the island, on the tidal flats and among the mangroves at high tide, while the animals and their eggs were collected on the sandy beaches.

### *Reptiles*

The series of snake figures recorded probably represent the "boa" or python seen by the French expedition on the island. They are shown coiled (201) or lying (198, 330) on a rock, in pairs (200) as though mating, being hunted (162-3, 199, 202, 332), and catching a rock wallaby (197). In the Bagadjimbiri myth of the northern Njangamada (Piddington, 1932, 48) the brothers turned into a big water-snake called Bulaing when they died. This snake is not the rainbow serpent, but controls the wet and dry seasons, and stands to the women in the same way as Bagadjimbiri does to the men. Bulaing is probably a reflection of the Kimberley Wandjina-Ungud belief and has no bearing on the Depuch Island snake engravings. Petri and Schulz (1951) thought there were no snake engravings on the island.

The lizards include the goanna (157, 160, 164), skink (333), gecko (331) and other species not identifiable. They are shown in static postures, and one pair (158) is engaged in sexual intercourse.

The young frog (161) is an unusual subject. Frogs occur on bark paintings in Arnhem Land and Groote Eylandt, where they are associated with rain (Mountford, 1958, 358).

### *Invertebrates*

These comprise a few insect-like engravings (252, 255, 258, 269, 284, 287) and some bag-like figures (194-6) which are probably of marine origin and may be bêche-de-mer or a similar creature. The outstanding subject in this group is the Mangrove Crab, of which three splendid figures (193, 342) were found and in which the legs vary from 8 to 10 in addition to the swimming pads. In 324 little men are spearing another large crab with 10 legs. There are no mangroves on the island, but the foreshore of the mainland is a jungle of them. The Australian Museum possesses a bark painting of this crab from Groote Eylandt, and the author has recorded it among the rock engravings at Port Hedland.

## **Material Culture**

The Ngaluma and neighbouring tribes used (Harper, 1886; Richardson, 1886; Withnell, 1901; Clement, 1904) spears with plain heads and with long rows (single and double) of barbs, and sometimes reversed barbs; rounded throwing sticks; boomerangs; spearthrowers and shields. All of these weapons are shown either singly or in use among the engravings. Only one shield bearing the parallel zigzag design (253) was seen, but no decorated sacred boards or spearthrowers were found. A hooked boomerang is shown in 343, and another occurs on Anchor Hill; these were made in the Northern Territory and reached the Ngaluma through barter and exchange along traditional routes (McCarthy, 1939, 81-2, map 10). Their engravings are in the furthest locality westward yet recorded. Petri and Schulz (1951) said weapons are a comparatively rare motif on Depuch Island, and thought that the pecked boomerangs represented the rainbow.

Objects such as the twined spinifex fibre basket and nets, hafted stone adze, fish net, swimming log, fluted wooden scoop, bailer and conch shells are not shown among the engravings.

The fringed apron (233 and others) is the commonest subject among the ornaments and clothing; it varies from short to long, with short to long fringe, and has up to 16 strands. Richardson (1886, 296-7) said the Ngaluma wore an apron of green leaves suspended from a hair girdle, but the one shown in the engravings appears to be a string type. It was identified by Petri and Schulz (1951) as a comb which is unknown to the Ngaluma. The rayed feather head ornament, with triangular base, is depicted, and it is interesting to note that the hands and feet of a human (4) and dog-like (321) figures on Depuch Island, and of a spirit being predominant at Port Hedland, are similar in shape to this ornament.



The pendants on the head ornaments in 25 and 56 may be spinifex-rats' tail tassels hung from the head-band, and the knobs on the hair in 33 and 34 are probably pellets of gum, both of which were worn by the local tribes (Harper, 1886, 288; Brown, 1913, 169). Radiating stiff lines capped with a knob form the head-dress of a Mimi and of another human figure, and several long strands ending in knobs form an ornament on a Nalbidji woman in the cave paintings of western Arnhem Land (Mountford, 1956, figs. 31, 49A, and pl. 50).

Other ornaments which the people wore, but which are not shown among the engravings, include armlets, forehead band, pearl shells suspended from the waist girdle, large bullroarers attached to the waist girdle and small bullroarer worn in the back of the head-band, shaved sticks, bunches of emu feathers in armlets and hung from the back of the waist girdle.

Head-dresses of the type worn in totemic increase and other ceremonies are shown in 2, 25, 58, 235 and 309, but no descriptions of these ceremonies exist.

Generally speaking, material culture is not a common motif, as Petri and Schulz (1951) commented.

### Designs

Linear designs are comparatively rare among these engravings, and are not very complex in comparison with those at Port Hedland. They are best represented by 261, 264, 273-274 and 291. Petri and Schulz (1951) regarded the comb (sic pubic apron), spherical structures, lines, crosses, etc., as symbolic representations or ornaments from cult objects with an esoteric meaning.

### Techniques

Of the six techniques previously defined (McCarthy, 1958, 14) the scratched outlines in 26 and 29, punctured outline in 325, punctured intaglio band in 315, and fully punctured intaglio in 307, are present on Depuch Island. Abrading was also recorded on the flippers and tail of a turtle (92, 210), and on the whole body of another turtle on Anchor Hill. The intaglios embrace three techniques in which the whole surface is not removed, including lightly pecked (305, 326), crudely pecked or battered (337) and gashed (333), and also the full intaglio in which the surface is completely pecked, either with or without a defined or grooved outline.

Wickham (1842) and Stokes (1846) surmised that the artist first drew the outlines and then chiselled them out with pointed stones, while the working of the whole surface was secondary. Withnell (1901, 29) said of the Ngaluma that "they have very many rock carvings; every hill that has suitably hard stone will have some kind of a figure tattooed thereon. They do not choose the softer rocks and mainly prefer the basalt and granite. The method adopted is to draw the outline with chalk or ochre and with a sharp hard stone hammer within the outline until the rock is pitted away about one-eighth of an inch deep . . . The carvings are mainly representations of men, kangaroos, rats, opossums, emus, turkeys, fishes, spears, shields, native weapons of all kinds, and many men and women in a variety of vulgar attitudes." Clement (1904, 9) said that between the De Grey and Fortescue Rivers, south of Roebourne, "very rudimentary carvings occur on almost all hill tops of emus, kangaroos, turtles and human beings; they were drawn in chalk and were then repeatedly hammered along the lines." There is nothing in either Withnell's nor Clement's statements to prove that they actually saw the natives engaged in rock engraving, and they are, like Wickham's, simply surmises of how the engravings were made. Clement no doubt had access to Withnell's pamphlet. Regrettably, we can throw no further light on the techniques today.

Several different kinds of percussive implements were probably used on Depuch Island. One was a cornered hammerstone that produced a pit, another a rounded or flat faced hammerstone that produced a battered surface. These could both be made from the island stone. A third implement with a relatively sharp edge that produced a gash or cut might have been the hafted stone adze (Richardson, 1886, 297). This technique is shown in straight parallel lines in 91; in others (333) the gashes have been made one upon the other to a depth of one-eighth of an inch or more.

For the abrading in the turtles (210), a muller or piece of the island stone would suffice.

The depth of the engravings varies considerably. Some of the deeply grooved outlines are  $\frac{1}{4}$  in. deep, but other outlines, like the design in 273, are less than  $\frac{1}{16}$  in. The same applies to the intaglios. Those on the vertical rock faces are mostly shallow, from  $\frac{1}{16}$  in. to  $\frac{3}{8}$  in. deep, and reveal the greenish-blue of the rock, due to the fact that the prisms and masses of rock are continually breaking up and their surfaces are not weathered to as great a depth as are those of the reddish-coloured boulders which broke away a very long time ago. Along the foreshore

the wash of the sea has rolled and smoothed rocks bearing engravings, and many of these are barely discernible. On Anchor Hill and in Watering Valley and similar localities many of the engravings are deeply grooved or pecked for up to  $\frac{3}{16}$  in. and  $\frac{1}{4}$  in. into the reddish-buff patinated surface of the boulders.

### Styles

Twelve of the styles among the engravings on Depuch Island fall into the same categories as cave paintings in Australia (McCarthy, 1958, 33-4), and the following were recorded for this island:

1. Dotted outline (50).
2. Outline (50, 127, 170).
3. Outline with barred interior design (11).
4. Outline with striped interior design (79).
5. Outline with striped broken line exterior design (91).
6. Outline with gridded broken line (206, 217-8, 224).
7. Outline with interior broken line (other than barred, striped or gridded) (222-3, 253, 264, 273).
8. Outline with dotted interior (185, 206, 225-9, 268, 301, 339).
9. Outline with solid punctured limbs, flippers, fins, head and tail (127, 213, 215, 221).
10. Outline with solid punctured limbs, flippers, fins, head and tail and lightly pecked (336) interior.
11. Outline with solid abraded head, limbs, fins, flippers and tail (210).
12. Outline with solid abraded interior (over pecking).
13. Linear (120, 233, 261, 281-2).
14. Stickmen (29, 310).
15. Geometric (236-7, 266, 270-2, 291).
16. Banded intaglios (108, 166, 169, 180, 188, 208, 220, 222, 263, 274).
17. Intaglio with (a) stippled (335), (b) lightly pecked (306, 308), (c) crudely battered (337), and (d) neatly pecked surface (336).
18. Intaglio and line design combined (153).

The above fall into three main groups of outline, linear and intaglio. They were not all employed during the one period, some being limited to the earlier outline and others to the later intaglio periods of engraving.

It is thus possible to claim that there is a similar heritage of styles in both rock engraving and painting in northern Australia, as a comparison with my study (1955, 1960) of the paintings on Groote and Chasm Islands will demonstrate. The paintings, however, appear to have been favoured in the vast region extending from the Kimberleys through Arnhem Land to Cape York, and engraving west of the Kimberleys in north-west Australia. The styles, too, in the two techniques have a different order of succession, because whereas in the paintings, silhouettes and outlines go back to the earliest times on Groote and Chasm Islands, in engravings the succession has been from the outline to the intaglio or silhouette in many parts of Australia. There is, however, a blending in the adoption of interior line designs in both arts, and it is in this field that correlations may be found.

### Superimpositions and Antiquity

Time did not allow of a sufficiently detailed study of superimpositions\* on Depuch Island, but those that were noted support data from Port Hedland and western New South Wales sites. They are as follow: Intaglio turtle or fish over outline man (13); intaglio human figures over outline turtle with grid design (92, 341); indeterminate intaglios over stickmen group (277, 311); intaglio fish over stickmen group (336); intaglio hunting composition of goanna, hooked boomerang and men over tail of large outline fish (343); intaglio emu and rock wallaby over linear pubic apron (345); intaglio men over dotted (with spaced punctures) outline oval (50); intaglio emu track over stickmen; intaglio fish over linear design (285); intaglio boomerang over stickmen; vertical pair of intaglio boomerangs over banded outline oval; intaglio mammal and man over stickmen and linear design; intaglio turtle over linear pubic apron; stickman

\* To be dealt with in a forthcoming paper, with Professor N. W. G. Macintosh, on Mootwingee in western New South Wales, and in a later paper on Port Hedland.

over outline turtle and boomerang (62); outline fish with partially stippled interior over fully-pecked intaglio of indeterminate figure (185); stippled intaglio bag-like figure over fully pecked intaglio (194); unweathered spiral over faded outline turtle with gridded interior (206); elaborate linear man with hook boomerangs over intaglio emu (339).

The above series of superimpositions indicate that (1) group 1, the naturalistic outlines, with or without interior designs and the stickmen, are consistently overlaid by group 3, pecked intaglios; (2) that group 1 is also overlaid by group 2, which includes the spiral, and these by group 3 and other linear or geometric motifs; (3) that in group 3 the fully-pecked intaglios tend to be overlaid by the stippled and battered intaglios. There are thus three periods of engraving on the island, and there are several sub-periods in the latest pecked intaglio period.

The abraded figures probably belong to the intaglio period, but the chronological status of the incised figures is uncertain.

The antiquity of rock engraving on Depuch Island thus covers a considerable period of time, probably several thousands of years. Most of the figures in the first or Outline naturalistic period are in a faded condition, as are, however, many of the later intaglios. On the other hand, many of the figures in the second or Design period, and a large number of the intaglios, are perfectly preserved, as are engraved dates of 1840 (H.M.S. Beagle), 1907 and 1914, which are completely unweathered. State of preservation is not a reliable guide to the age of the engravings. Davidson was of the opinion (1952, 101) that we will never be able to determine the historic age of the north-west Australian engravings, as chronologically we have nowhere to start from. Detailed study of superimpositions in this region, however, will throw a great deal of light on this problem.

Although the stickmen belong to an early period of engraving, their use continued into the Pecked Intaglio period, where they are featured in hunting compositions. It is further probable that the depiction of some of the figures in the Design period, particularly the pubic apron, was continued into the Intaglio period because in some instances a pubic apron is engraved beside an intaglio man and both appear to be in the same perfect state of preservation. The intaglios probably continued to be made until the coming of the white man, and they constitute the majority of the engravings on the island.

The above superimpositions suggest the following comparisons with the cave paintings of western Arnhem Land: (1) The outline naturalistic engravings may be correlated with the outline and silhouette paintings in the earliest period; (2) the stickmen may be correlated with the Mimi paintings; (3) the Design period is not represented among the paintings; (4) pecked intaglios may be correlated with the X-ray period.

Petri and Schulz (1951) were of the opinion that the symbolic geometrical drawings could not be interpreted, and possibly belonged to the totem legends of the old Pilbarra tribes, with whom we have never been familiar.

The same order of superimpositions occurs at Port Hedland, where stickmen are not represented, but where motifs of the Outline and Design periods are richly represented, and where immense numbers of tracks of humans, emus and kangaroos predominate among the very small number of pecked humans and animals in the Intaglio period.

The inland galleries described by Worms (1954) appear to include an early Outline period, followed by a scanty Design period, both overwhelmingly dominated by the pecked and stippled intaglios and by the most recent Gurangara style of graceful and decorative human figures. The succession is similar to that on Depuch Island, excepting for the Gurangara style inland, and contrasts strongly with that at Port Hedland. It is possible that Depuch Island supplanted Port Hedland as a ceremonial centre associated with rock engraving in the Intaglio period.

### Subjects and Function

It is obvious from a study of the illustrations that the activities of human beings interested the Ngaluma artists who visited the island. In the early Outline period stickmen are shown engaged in many hunting, fighting and ritual activities. In the later Intaglio period hunting and sexual activities become important, and though many men are armed with boomerangs and shields they are not actually fighting. It almost seems as if the period of the stickmen was one of unrest and hostility, as with the Mimi in western Arnhem Land, but that of the Intaglio was one of peace, in which ritual activities flourished.

Floral motifs are lacking.

The illustrations demonstrate the limited range of motifs in both the Outline and Design periods, and in the latter the great array of linear designs at Port Hedland is lacking. The scarcity of animals in the Outline period contrasts with their importance in the Intaglio period. Material culture is unimportant in all periods. This emphasis on naturalism in the Intaglio

period on Depuch Island and at Port Hedland and inland sites is striking. As part of it, anthropomorphs are common on Depuch Island, and among them appear the mythical brothers of the north-western Australian mythologies, men in ritual attire, people engaged in sexual intercourse and birth, with their genitals exposed in exaggerated size.

What is known of the religion of the Ngaluma reveals the nature of the ritual background of their rock art. According to Withnell (1901, 1-4) the Ngaluma and neighbouring tribes believed in a common creator spirit-being named Ghurker, whose wife gave birth to the first couple sent to populate the earth. Another spirit called Mulgarra lived both in heaven (defined as a space) and on earth, and they had a strong belief in the spirit world for both good and evil. There was, too, an evil spirit called Juno (Richardson, 1886, 293). Ghurker created the Tarlow sites and the increase rites. Each living thing is a totem which had a Tarlow, a stone or pile of stones, which were hammered with round stones or clubs in the increase ceremonies. The women participated in these ceremonies, and there was no prohibition on eating one's totem (Withnell, 1901, 5-6). Radcliffe-Brown (1913, 60, 167) ascertained that each of the patrilineal local groups formed a totemic clan with up to 18 or more totems, for each of which there was a *talū* centre of stones. The head of the clan took the leading part in the rites, during which the names of different parts of the local group's country were called and songs recounted how the *talū* sites were created. I did not see any heaps of stones on Depuch Island, and am of opinion that the pits (323), and some of the prominent stones on which figures are engraved, served as the *talū* sites. The Garadjeri use pits or depressions in the ground which are cleaned out and the stones thrown in different directions for the purpose (Piddington, 1932, 373-400). Clement (1901, 6-7) said that the various movements and activities of the totem animal were imitated and all of the weapons and utensils used to kill and prepare it as food were included in the increase rites at the *talū* site, which was usually a heap and not a single stone. One of the most important ceremonies conducted on the island concerns a huge egg-like object, which was carried on the head and which subsequently became the head (71, 273, 326) or is encircled by little men (326), and a pronged object also carried on the head (273). Various spirit figures, some of which are composite human and animal creatures, cannot be interpreted.

The intaglio art as a whole is the product of a typical Australian Aboriginal religion and mythology in which the themes of ancestral and other spirits, reproduction and the animals the men hunt and ritualize, feature prominently. Petri and Schulz (1951) concluded that these rock engravings are a notable expression of the totemic view of the natives' world, as are the Wandjina of the Kimberleys, although no direct proof exists of their use in ritual increase. Some of the engraved figures could represent animals prohibited to a young man, like small kangaroos and emus (Brown, 1913, 176), as part of his education through ritual. As no record of the Ngaluma mythology exists, the problem of the interpretation of their rock art cannot be taken any further.

#### Artistic Merit

Technically, the depiction of the figures on Depuch Island compares closely with that elsewhere in Australian rock art. The imaginative approach of the Ngaluma to the subjects is found also in the Kimberleys and western Arnhem Land paintings, and to an even greater extent in the Gallery Hill and Wamerana type of rock engravings. But on this island the occasional use of the shape of the rock (297, 344) to show the form of the body, the innumerable compositions of a ritual, hunting, fighting and sexual nature, the great variety of human and spirit figures and the many excellent figures of animals, warrant its being denoted as one of the most artistically interesting sites of naturalistic engravings in Australia.

The artists often selected the boulder faces carefully to suit their subject, both in shape and position, and they probably placed some of the rocks in position to work upon. Many of the engraved rocks in Watering Valley, which are held in place by boulders around them, have been in their present position almost since the inception of engraving on the island, because engravings on them are in all states of preservation and some of them are very faint. Thus, there is not very much movement of the rocky sides of the ridges.

Davidson's (1952) data indicates that engravings typical of the Intaglio period are found mainly in the north-western division of Western Australia, and probably in the Canning division, while those of the Outline and Design periods extend further south into the Murchison division and possibly beyond. Stokoe (1959) described engravings of the Design and Intaglio periods at Yarlalweelor in the northern Murchison division. An undescribed site has been reported in the Kimberleys, about 30 miles from the mouth of the Drysdale River. The concentric circles (271-2), double circle (270) and set of inverted U's (245) are characteristic of the living art of central Australia, but they are rare on Depuch Island. Together with the *kurdaitja* shoes (267-8) and hooked boomerang (2), they illustrate the traits introduced into the local culture by the traditional "trade" from the central Australian region through the Great Sandy Desert tribes.

On Depuch Island the emphasis is on naturalism, even though reproduction as a theme is stressed in engravings of sexual intercourse of humans and of animals. In the inland sites animals are extremely rare—Worms (1951, 1077) counted 11 animals as against 74 human figures on Gallery Hill—and the main emphasis is on the ritual human coitus of the Gurangara cult. The head-dresses of the two sites differ considerably. Those worn by the men in the Depuch Island art include radiate and pendant types (with knobs and other attachments), but those in inland sites (Worms, 1951, fig. 4) include looped, barred, simple and double branched, and double wing forms unknown on Depuch Island.

Worms (1951, 1075, pl. 4c) classified the types of human figures at Gallery Hill and Wamerana as:

(1) bulb or square form, but his type is an echidna with a thick pecked band outline and stippled interior, a form which I have recorded in Groote Eylandt paintings (McCarthy, 1960) and which Basedow (1914, 205, pls. VB, VIIB) called both platypus and echidna in central Australia;

(2) Drop type in outline with dotted interior, but his type is, in my opinion, a praying mantis, one of which, in full intaglio, occurs on Depuch Island;

(3) Skeleton type, a thick-banded linear form;

(4) Rounded or fleshy type, pecked or stippled without heavy outline;

(5) Match type, with double lines linked by bars.

Excluding the first two doubtful types, photographs show that the third or skeleton type and the fifth or match type are superimposed over the fourth or fleshy type in these galleries. There is only one figure (5) on Depuch similar to the fleshy type which occurs also at Mt. Edgar or Mentheena (Davidson, 1952, fig. 4), 60 miles west of Marble Bar. None of the skeleton or match types, or the echidna (square or bulbous type), are represented on the island. There is also an emphasis on intaglios of animals, particularly lizards, at Yarlalweelor (Stokoe, 1959), but not enough detailed records are available from other sites elsewhere in Western Australia for comparative purposes.

Points of difference with Davidson's review (1952, 90-1, 93, 95) of rock art in Western Australia are that (1) snakes are not, numerically, an important motif on Depuch Island; (2) emus are only fairly well represented among the birds; (3) the human figures commonly show the hair in radiate fashion, and many of them wear head-dresses; and (4) compositions are plentiful.

### State of Preservation

There is a tremendous variation in the state of preservation of the various figures. Many are so faint that they can only be distinguished in a side light, and there are all gradations from this faded weathering to those that are perfectly preserved. Some of the engravings along the southern shore have a rolled appearance, as though they have been smoothed by the tides, while those on the vertical rock faces on Anchor Hill, which have a very thin patinated surface, are also weathered to a smooth-faced appearance. The best-preserved are those engraved in the thick, patinated layer on the surface of the boulders on the sides and tops of the ridges and hills. They show out well as biscuit-coloured figures against the reddish-brown of the rock, and many of these are in a perfect state of preservation, as a perusal of the plates will demonstrate.

### Localities

Engravings were recorded from five localities at the southern end of the island, and many more yet to be recorded are scattered over the ridges all over the island and along the shores of the central and northern portion. A more thorough investigation of the following five sites, particularly Watering Valley, would yield more motifs. The following is a list of the localities of the engravings illustrated:—

1. Southern shore from South-west Point to Wickham Beach: Nos. 7, 14, 24, 28-9, 34, 41, 43-8, 51, 53-4, 62, 74-7, 79-80, 84-5, 87, 89-90, 93, 102, 104, 108, 112, 118, 126, 132, 134, 136, 141, 152-3, 160, 164, 167, 169, 174, 178, 192, 197, 206-10, 216-7, 219, 221-2, 224, 226, 228-9, 235, 246-8, 251, 260, 262, 266, 269, 281, 286, 291, 299, 308, 312, 321, 330, 332.

2. Anchor Hill: Nos. 8-9, 11-2, 16, 18-9, 22-3, 25, 27, 35, 57, 59-60, 67-8, 73, 82, 94-5, 99-101, 103, 105-6, 112, 114, 116-7, 119-21, 125, 130, 148-9, 154-5, 165, 168, 171, 173, 180-1, 184, 188, 193-4, 203-5, 211-4, 218, 220, 223, 230, 238, 240-1, 245, 252, 254-5, 257-8, 263, 267, 270-2, 284-5, 287-9, 302-4, 315.

3. Northern end of Beagle Beach: Nos. 237, 298, 310.

4. Watering Valley: Nos. 2-5, 10, 13, 15, 17, 20-1, 26, 42, 50, 55-6, 58, 61, 63-72, 78, 81, 83, 86, 88, 91, 97-8, 107, 109-11, 113, 115, 123-4, 127, 129, 131, 137-40, 143-5, 147, 149, 156-9, 161, 166, 170, 172, 175-7, 179, 182-3, 185-6, 190, 192, 195-6, 198, 200-1, 215, 225, 234, 236, 242-4, 249, 250-1, 253, 256, 259, 261, 264-5, 274, 277, 282, 290, 292, 297-8, 300-1, 305-7, 309, 311, 313-4, 316-20, 322, 324-6, 328-9, 331, 333-7, 340.
5. South-west coast: Nos. 6, 30-3, 36-8, 49, 52, 96, 122, 133, 142, 151, 162-3, 189, 199, 202, 227, 231, 239, 268, 273, 275, 278-80, 283, 341-5.
6. General: Nos. 40, human feet; 152, emu tracks; 191, stingray livers; 232, boomerangs; and 233, pubic aprons, include figures from several of the above localities, and each of these motifs in all of the above localities.

The figures are engraved on vertical walls (in some cases now above reach of a human being because the rocks or platforms from which they were made have broken up into boulders), on rock platforms and on loose rocks. On Anchor Hill some of the engravings on a rock platform have been obscured by birds' dung.

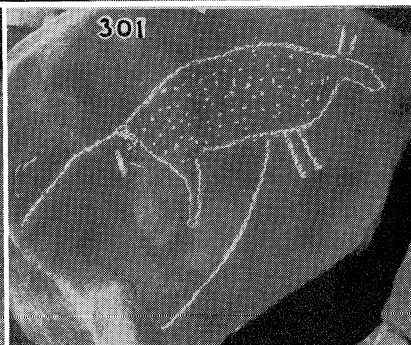
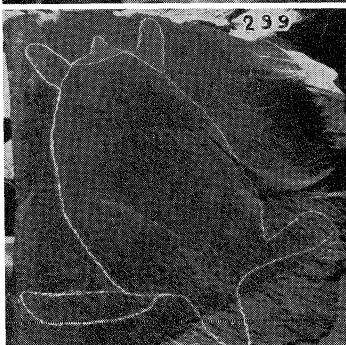
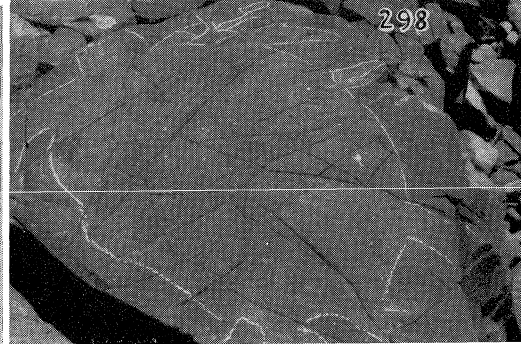
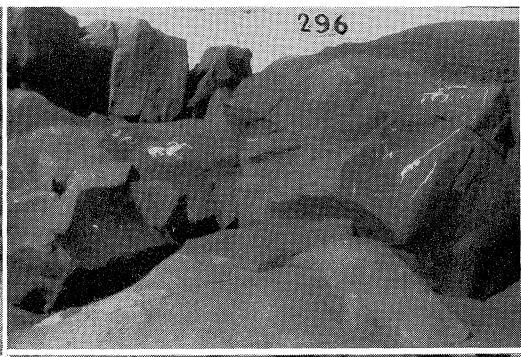
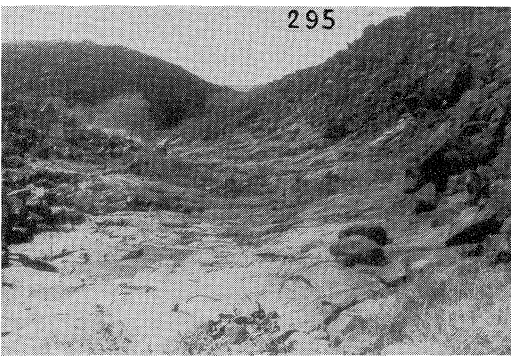
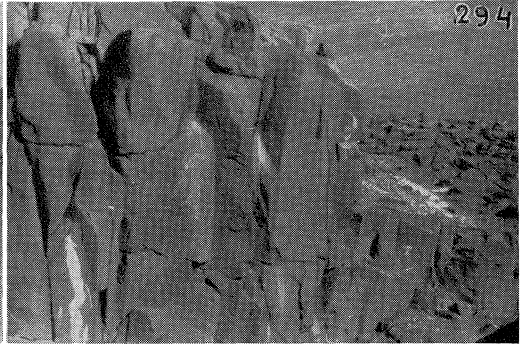
*Grindstones.*—Two slabs of stone about 2 ft. long were found that had been used as millstones. The seeds ground on them would have to be brought from the mainland.

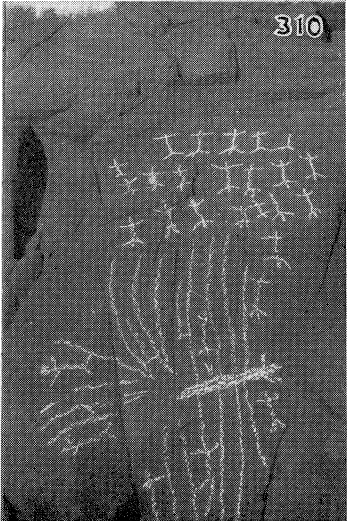
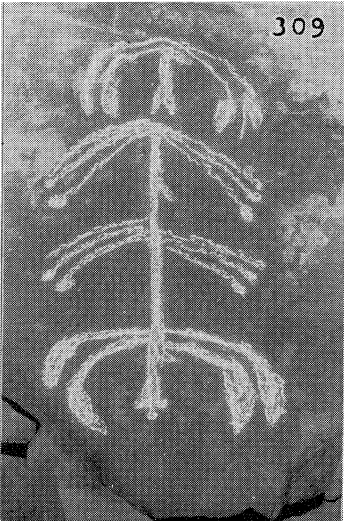
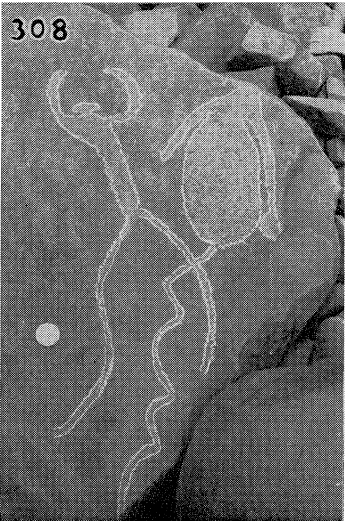
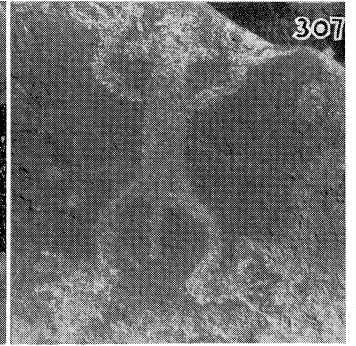
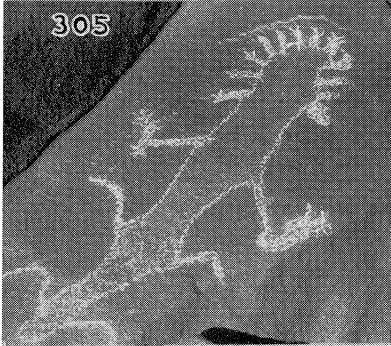
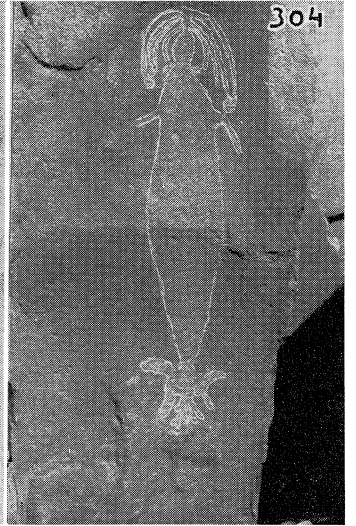
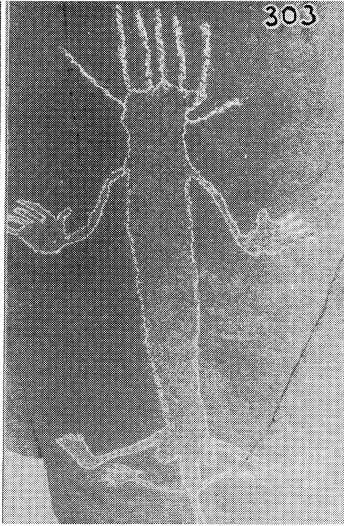
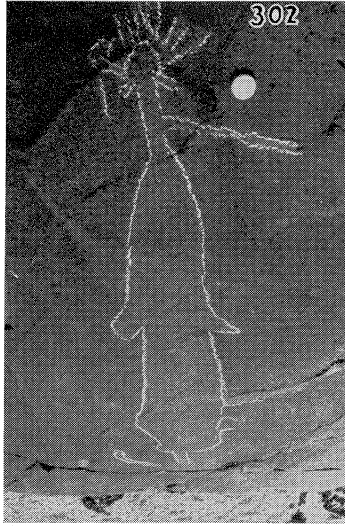
#### ACKNOWLEDGMENTS

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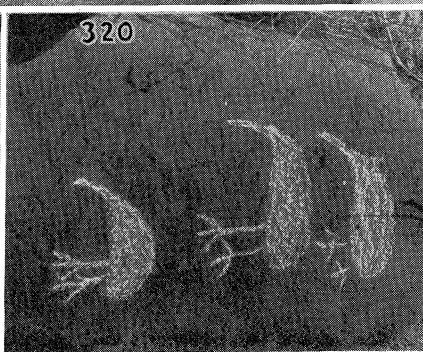
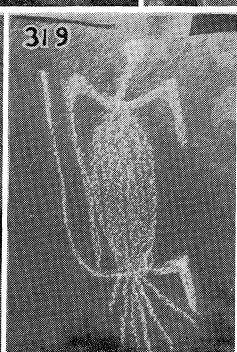
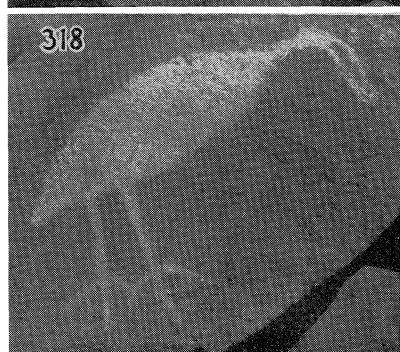
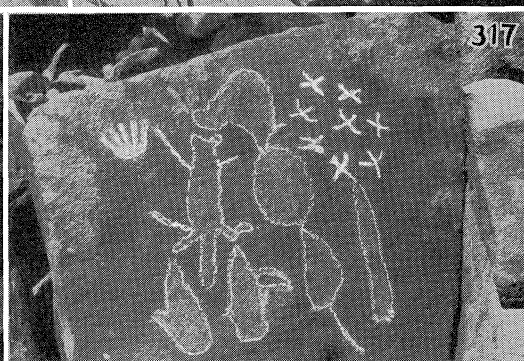
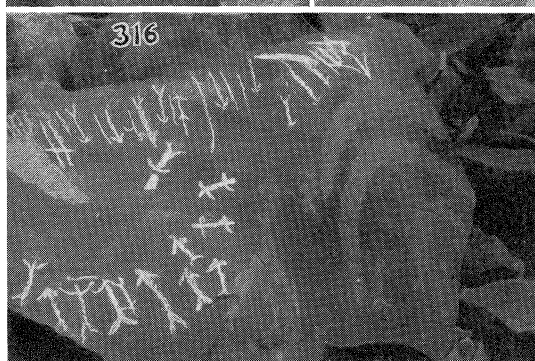
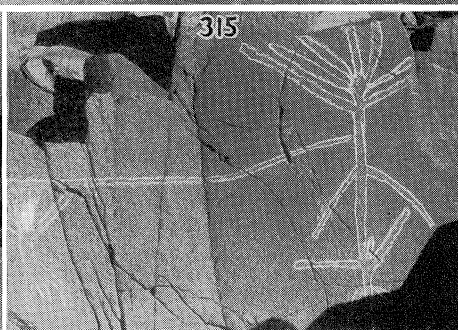
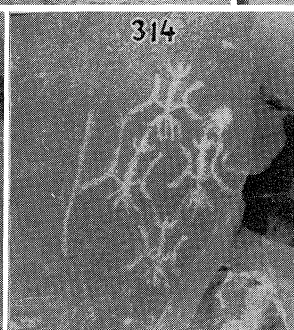
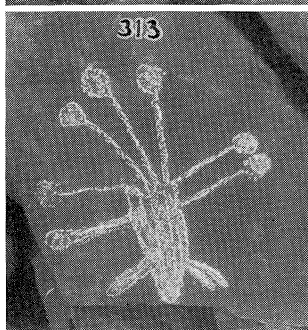
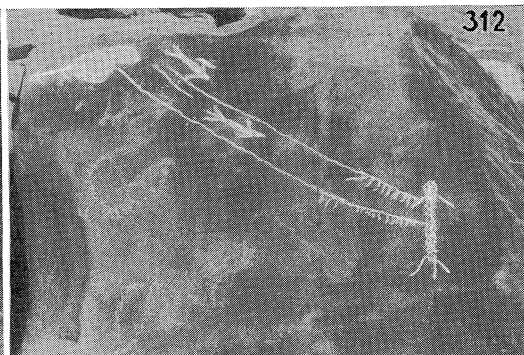
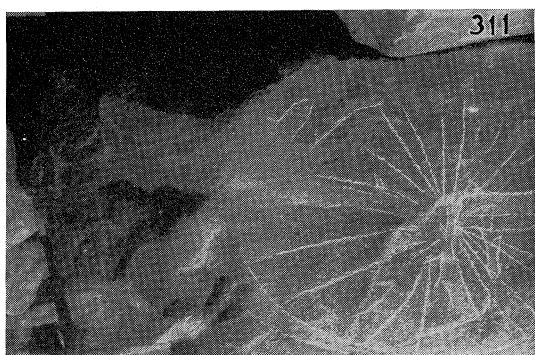
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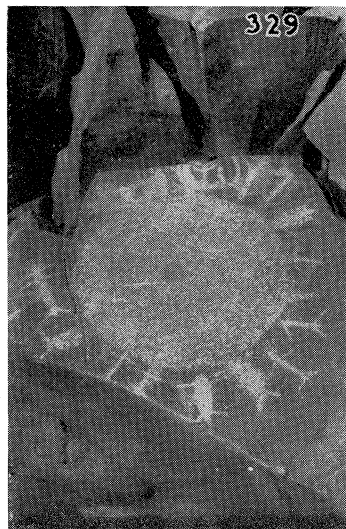
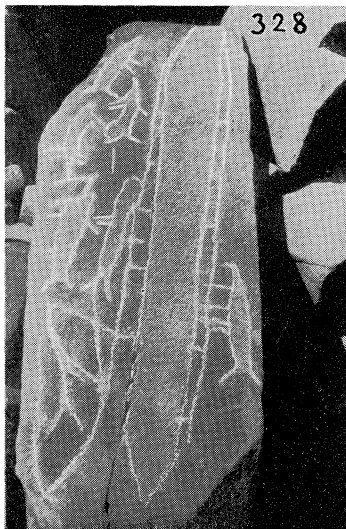
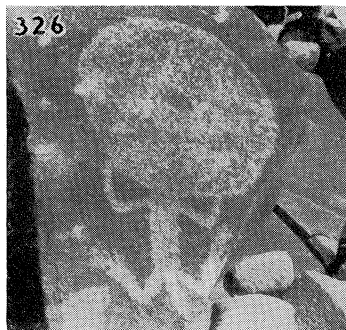
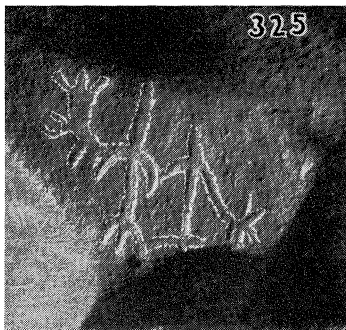
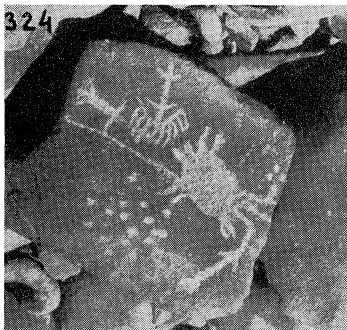
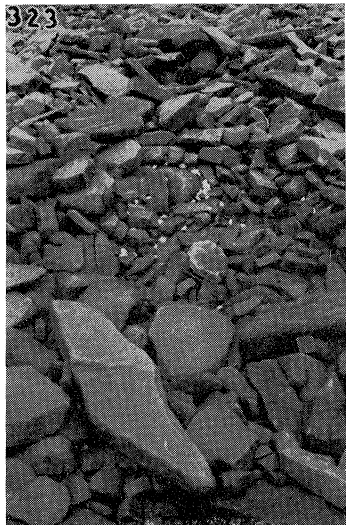
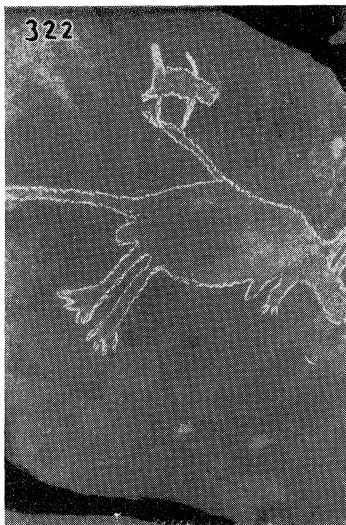
- Brown, A. R., 1913  
Basedow, H., 1914  
Campbell, W. D., 1899  
Clement, E., 1904  
Davidson, D. S., 1936  
——— 1947  
——— 1949  
——— 1951  
——— 1952  
Harper, C., 1886  
Love, J. R. B., 1936  
McCarthy, F. D., 1939  
——— 1944-60  
——— 1955  
——— 1958  
——— 1959  
——— 1960  
Mathew, J., 1893  
Mathews, R. H.  
Mountford, C. P., 1937  
——— 1956  
Peron, F., and Freycinet, L. 1824  
Petri, H. E., 1939  
Petri, H. E. and Schulz, A., 1951  
Piddington, R., 1932  
——— 1932  
Richardson, A. K., 1886  
Smyth, R. B., 1878  
Stokes, J. L., 1846  
Stokoe, I., 1959  
Wickham, Capt. G., 1842  
Withnell, J. G., 1901  
Worms, E. A., 1954  
Worsnop P., 1897  
Three Tribes of Western Australia. *J. roy. Anthropol. Inst. Gt. Brit. Irel.* 43, 143-94.  
Aboriginal Rock Carvings of Great Antiquity in South Australia. *J. roy. Anthropol. Inst. Gt. Brit. Irel.* 44, 195-211.  
Aboriginal Carvings of Port Jackson and Broken Bay. *Mem. geol. surv. N.S.W., ethnol. ser.* 1.  
Ethnological Notes on the Western Australian Aborigines. *Intern. Arch. f. Ethnogr.* 16.  
Aboriginal Australian and Tasmanian Rock Carvings and Paintings. *Mem. Amer. Phil. Soc.* 5.  
Footwear of the Australian Aborigines. *Sth. West. J. Anthropol.* 3, 114-23.  
The Interlocking Key Design in Aboriginal Australian Decorative Art. *Mankind.* 4, 85-98.  
The Thread Cross in Australia. *Mankind.* 4, 263-73.  
Notes on the Pictographs and Petroglyphs of Western Australia. *Pr. Amer. Phil. Soc.* 96, 76-117.  
The Ngurla Tribe, Curr, E. M., *The Australian Race*, 1, 1886, 287-93.  
Stone-Age Bushman of Today. Blackie, London.  
Trade in Aboriginal Australia. *Oceania*, 9-10.  
Records of the Rock Engravings of the Sydney District, Nos. 1-101. *Mankind*, 3-5; Pts. 1-2. *Rec. Aust. Mus.*, 24.  
Notes on the Cave Paintings of Groote and Chasm Islands. *Mankind.* 5, 68-75.  
Australian Aboriginal Rock Art. Australian Museum, Sydney.  
The Cave Art of Conjola, New South Wales. *Rec. Aust. Mus.* 24, 191-202.  
The Cave Paintings of Groote and Chasm Islands. *Rec. Amer. Aust. Arnhem Land Exp.*, 1948, II, Art. 6.  
The Cave Paintings of Australia. *J. roy. Anthropol. Inst. Gt. Brit. Irel.* 23, 42-52.  
Australian Rock Pictures. 1895. *Amer. Anthropol.*, 8, republished in *Pr. roy. geogr. Soc. Aust., W. Aust. Br.*, 19, 1903-4, 47-8.  
Examples of Aboriginal Art from Napier Broome Bay and Parry Harbour, north-western Australia. *Trans. roy. Soc. S. Aust.* 61, 30-40.  
Art, Myth and Symbolism of Arnhem Land. *Rec. Amer. Aust. Arnhem Land Exp.* 1948, 1.  
Voyage de Decouvertes aux Terres Australes. 1800-4. 1. 2nd ed. *Paideuma*, 1.  
Felsgravierungen aus Nordwest-Australien. *Zeitschr. f. Ethnol.* 76, 70-93.  
Totemic Systems of the Karadjeri Tribe. *Oceania*, 2, 373-400.  
Karadjeri Initiation. *Oceania*, 3, 46-87.  
Nickol Bay. Curr, E. M., *The Australian Race*. 1, 296-301.  
The Aborigines of Victoria. 1. Ferris, Melbourne.  
Discoveries in Australia. H.M.S. Beagle, 1837-43, 2.  
Aboriginal Rock Engravings at Yarlalweelor, Western Australia. *Anthropos*, 54, 57-67.  
Notes on Depuch Island. *J. roy. Geogr. Soc.*, 12.  
The Customs and Traditions of the Aboriginal Natives of Western Australia, Geyer, Roebourne, Western Australia.  
Prehistoric Petroglyphs of the Upper Yule River, North-Western Australia *Anthropos*, 49, 1067-88.  
The Aborigines of Australia. Bristow, Adelaide.

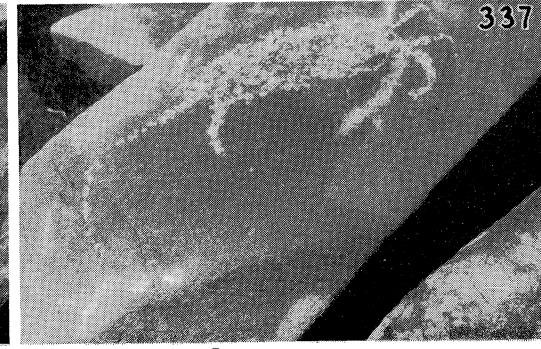
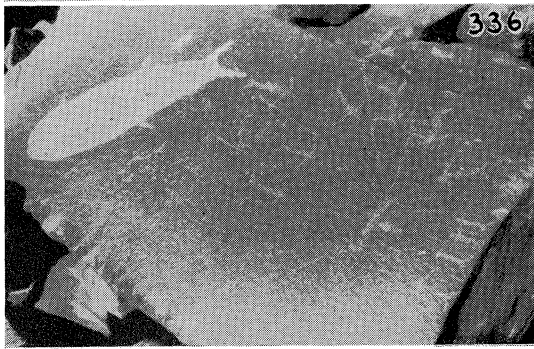
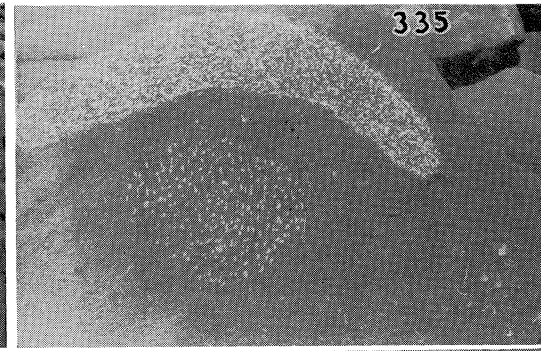
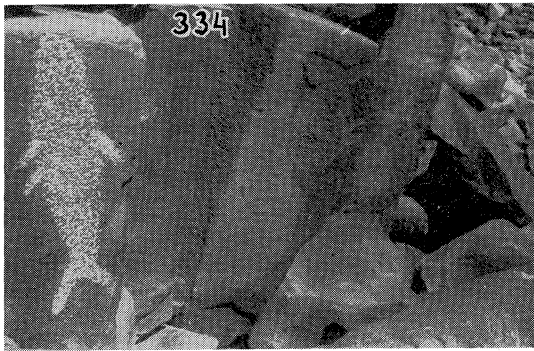
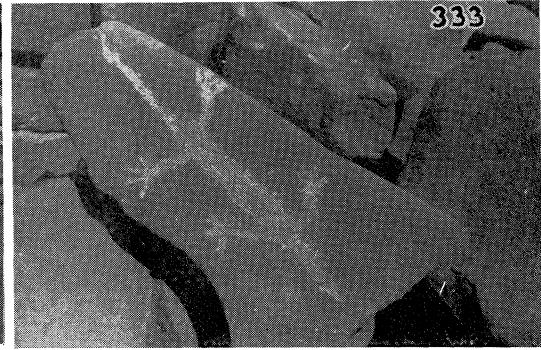
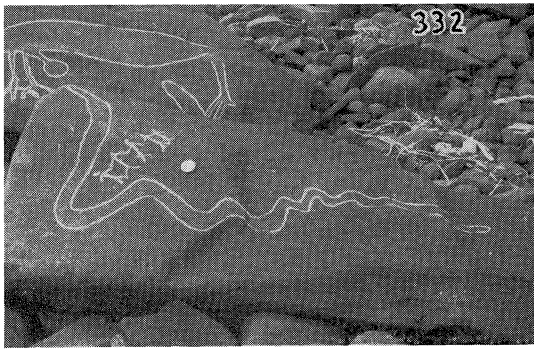
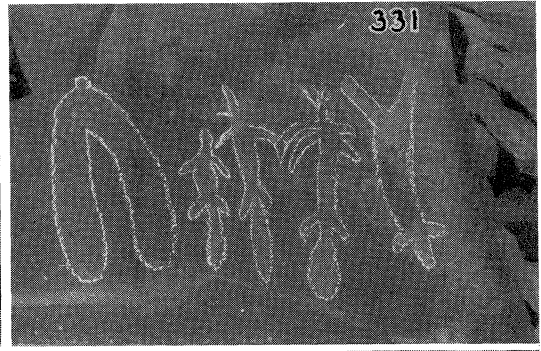
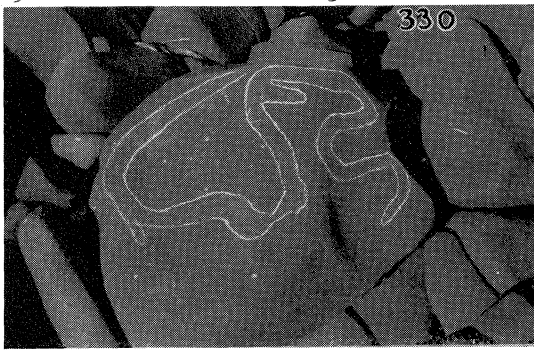












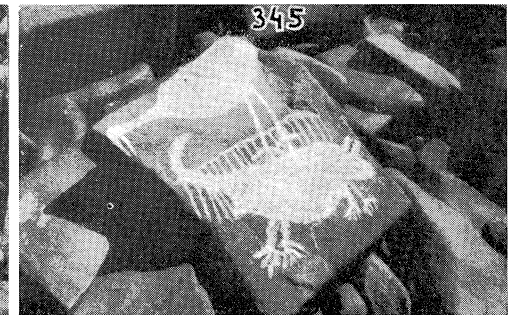
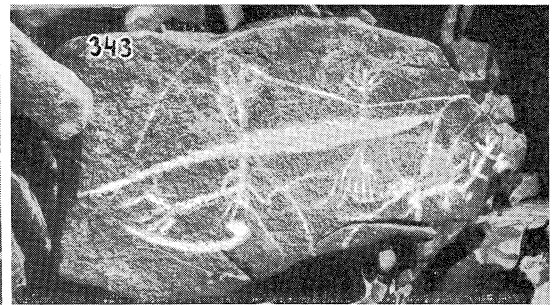
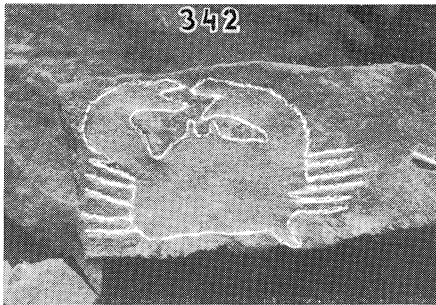
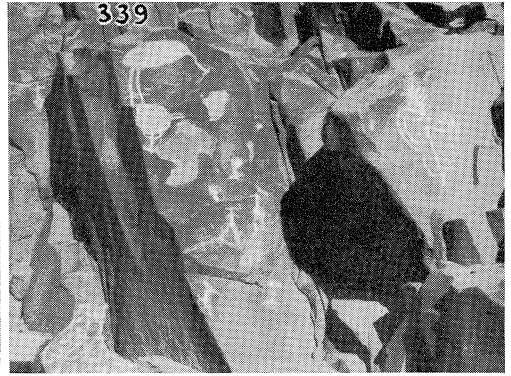
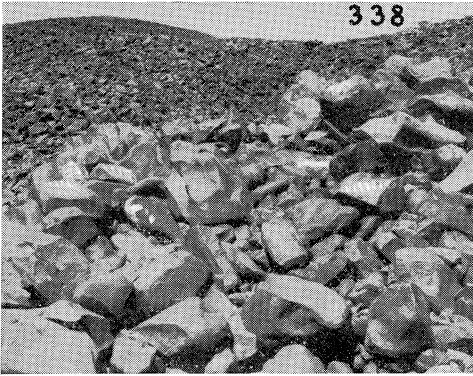




Fig. 346