DESCRIPTION OF TWO TASMANIAN ABORIGINAL CRANIA.

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Plates XXIV. and XXV.

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In a previous paper (P. and P. Roy. Soc. Tas., 1920) we compiled a complete list of the osteological specimens, relating to the Tasmanian Aborigines, contained in the Tasmanian Museum.*

Two of the specimens mentioned in the published list present features worthy of comment, and in the present instance we desire to place on record a short description of the specimens catalogued as No. A. 298 and No. A. (E.H.) 558.

Both are crania which have been added to the Museum collection in recent years. The former was discovered at Tasman Island, and presented to the Museum by the Marine Board of Hobart. It was found in a penguin (*Eudyptula*) rookery, and was not in association with any other bones, careful search in this direction yielding nothing. Apart from the anatomical details of the skull, the locality of its discovery is of interest.

Tasman Island is in reality an enormous outcrop of rock lying off the South-East corner of Tasmania. Its cliffs, in most cases, rise for hundreds of feet sheer from the sea. The coast of the mainland, for several miles in both directions from the island, presents a massive bastion of diabase—an inhospitable coast upon which the surges of the Southern Ocean beat with relentless force. Between the island and the mainland the narrow channel is usually seething with the force of the tide rip.

In view of the foregoing, one cannot but wonder how the Tasmanian woman, whose skull is now included in our national ethnological collection, was able to reach the island

*Since that list was published the Tasmanian Museum has obtained five additional crania, three by purchase and two by exchange.

at all. Did she set out in one of the rough bark rafts of the natives to satisfy her curiosity as regards the island, or was she blown off shore by accident, and managed to swim to the island and climb its cliffs? Such questions naturally arise, but to a large extent they must remain unanswered. All we know is that the islands off the coasts were certainly visited by the natives, and that Tasman Island, despite the difficulties to be overcome, was no exception to the rule. This is proved by the fact that numbers of aboriginal stone implements are to be found on the island.

As regards the second cranium (No. A. (E.H.) 558), we are again at a loss to account for the fate of the Tasmanian male and the party to which he belonged. The cranium formed part of the Eaglehawk Neck discovery, the facts in connection with which have already been placed on record in the Papers and Proceedings of the Royal Society of Tasmania for 1918 (p. 118).*

In both cases the crania were very friable and worn by sand and exposure. Some slight restoration had, of necessity, to be made in order to provide for the adequate preservation of the specimens. Such restorations were carried out as carefully as possible, and done in such a manner as to interfere as little as possible with the correct anatomical details of the specimens.

TASMAN ISLAND SKULL.

(Tasmanian Museum, No. A. 298.)

The skull is that of an adult woman, and comprises the greater part of the cranium and face, as well as the mandible, the latter being in two portions.

The remains lying for many years on the left side, and being gradually uncovered, the wind and weather have disintegrated and removed the greater part of the right side of the cranium.

This has also happened to the face; the right malar and part of the external surface of the maxilla being wanting. The right parietal, almost in its entirety, and part of the left are also absent. Of the frontal, the outer table and greater part of the right half of this bone have disappeared, as also have the greater part of the occipital and right

*Since the first discovery further detailed examination of the site has been made by Mr. W. H. Clemes, with the result that a chipped stone implement has been found.

temporal. The *Pars glabellaris* is of interest. Here the outer table has weathered away, and no air cells or sinus are to be made out. In this respect, the specimen differs very materially from the more strongly developed cranium from Eaglehawk Neck (A. (E.H.) 558), also described in this paper. Sexual characteristics of the crania would explain this at least in part.

In spite of the absence of the cells, which might very reasonably be assumed to have a considerable part in the formation of the prominent glabella, this latter feature is as typically marked as in the average Tasmanian skull.

The mandible, recovered at the same time, wants portion of the right ramus, and has been broken into two fragments. This has since been restored.

The great interest of this skull, apart from the locality of its discovery, lies in the palate, together with the superior and inferior dental arches. The teeth are perfect, all 32 being in position. The general conformation of the palate and arches, with the tendency to elongation, and the parallel nature of the alveolar borders are points of much interest. (Plate XXIV.)

It has already been noted that the extinct Tasmanian race approaches more closely to the anthropoid apes than other races do, in the arrangement of the molar teeth and their tendency to be set in approximately parallel rows on each side of the palate. Such characteristics are well shown in the specimen at present under review.

The following measurements are given:—

Palato-maxillary, length* .. .. 64 mm.

Measurements between outer borders of 3rd molars .. .. 61 mm.

Measurements between outer borders of 1st molars .. .. 57 mm.

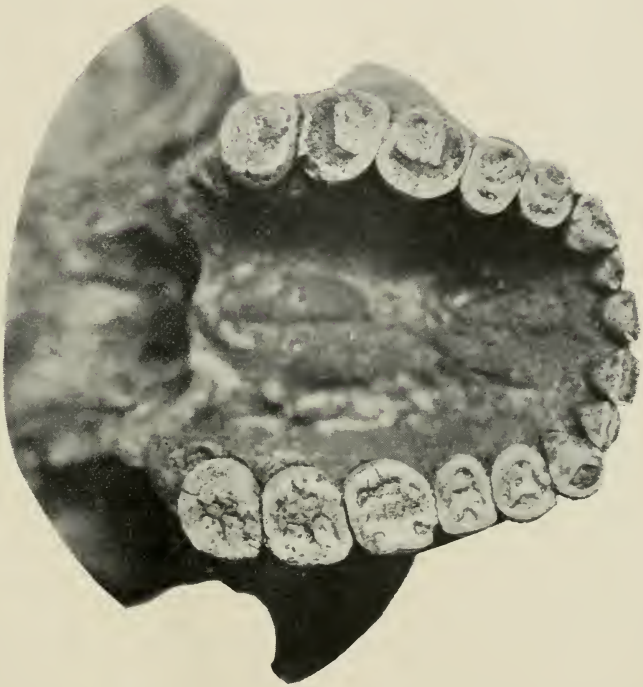
Combined length of molars and premolars (R.) .. .. 48.5 mm.

Combined length of molars and premolars (L.) .. .. 47.5 mm.

The whole palate has an excavated appearance, the horizontal processes being deeply set.

Depth at 3rd molars .. .. 12 mm.

*Margin of error in this measurement owing to the disintegration of the process of superior maxilla, posterior to 3rd right molar.



Palate of Skull of Tasmanian Aboriginal from Tasman Island. (Tas. Museum A. 298.)

Interval between internal margins of 3rd molars .. .. 35.5 mm.
Interval between internal margins of 1st premolars .. .. 28 mm.
Maximum length of skull .. .. 178 mm. (Approx.)
Maximum height of skull .. .. 128 mm. (Approx.)
Maximum breadth of skull (Impossible to measure with accuracy, owing to disintegration.)

EAGLEHAWK NECK SKULL.

(Tasmanian Museum, No. A. (E.H.) 558.)

This cranium consists of the greater part of the Frontal, right and left Parietal, and Occipital bones. Two small portions of the temporal articulations have been recovered and replaced in their correct positions. The calvarium itself is in very fair preservation. In several places the outer table is wanting.

Inferior to the right temporal ridge; immediately above the glabella; and in the sagittal suture 55 mm. posterior to the bregma, are cavities throughout the whole thickness of the bone. The loss of bone above the glabella enables the conformation of the frontal sinus to be made out, and shows this to consist of three large and several smaller air cells, the largest of these being over 20 mm. in length by 14 mm. in breadth. This central space is connected directly with the large cell of the right side, but not apparently with that of the left. The disintegration of the orbital and nasal portions of the bone allows only parts of six air spaces to be identified.

It appears that in this cranium the great development of the glabella is associated with and is proportional to the marked development of the air cells of the frontal sinus.

The frontal eminences are not marked, and no remains of the frontal suture are to be made out, nor any flattening immediately behind the glabella. The superciliary ridges, like the glabella, are well marked. The supra-orbital notches are represented by two shallow grooves 5 and 7 millimetres broad, on the right and left sides respectively.

Passing backward in the median line, and 45 mm. anterior to the lambda, is a large parietal foramen, 1 mm. to the right side of the sagittal suture. The thickness of the vault is 4 mm. The cerebral fossæ are deep and circular rather than ovoid in shape.

The feature of greatest interest in the skull is its remarkable resemblance, in point of general configuration

and actual measurements, to that of *Homo primogenesis*, as represented by the Neandertal skull. As instancing this, the following measurements are given:—

	Homo primogenesis (Neandertal) (From Munro's *Prehistoric Britain*)	*Homo tasmanensis.* (Tas. Mus. No. A. (E.H.) 558)
Ant.-Posterior (Max. Dia.) ..	200 mm.	205 mm.
Transverse (Max. Dia.)	144 mm.	148 mm.
Frontal (Minimum)	106 mm.	115 mm.
Frontal (Maximum)	122 mm.	*117.5 mm.
Cephalic Index	72 mm.	72.19 mm.

The points that the Tasmanian skull emphasised more thoroughly than any recent race were the prominent glabella, superciliary ridges, and narrowing (post-orbital) of the frontal bone. It will be seen how these compare with the Neandertal skull, the actual measurements of the two skulls being very similar. The Tasmanian skull does not, of course, present the marked flattening of the cranial vault which is so characteristic of *Homo primogenesis*. The *Pars glabellaris*, whilst very prominent and pronounced, has not the rugged projection of the Neandertal skull; in consequence, the narrowing of the frontal bone is not thrown into such strong relief as in the latter.

Not having the actual measurements of the Neandertal calvarium we are not able to compare the superior portions of the occipital of A (E.H.) 558 with it. Attention has, however, been drawn to the depth and shape of the cerebral fossæ.

EXPLANATION OF PLATES.

Plate XXIV.

Palate of Tasmah Island skull (Tas. Mus. A. 298).

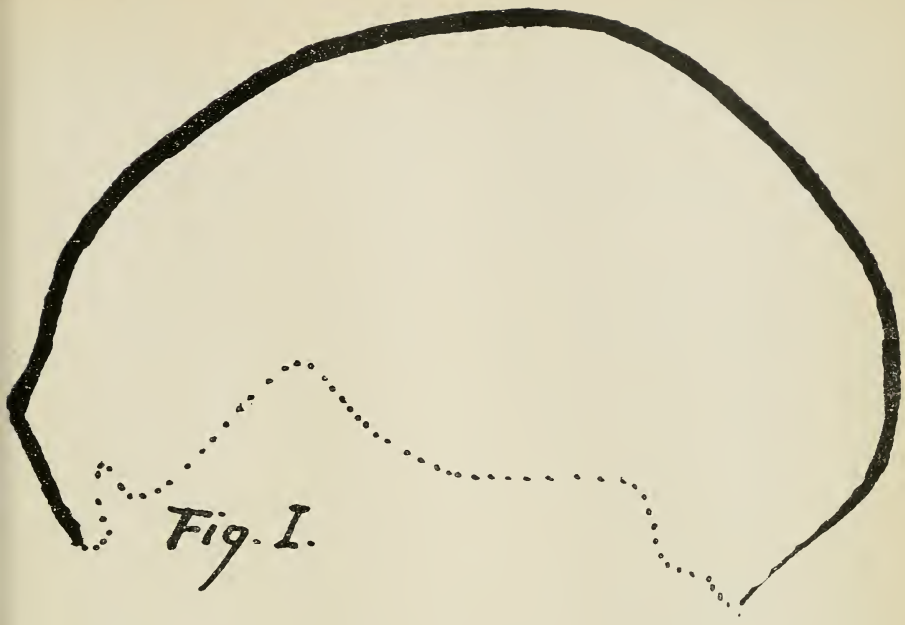
Plate XXV.

Fig. 1. Reduced outline (*Norma lateralis*) of Tasmanian Aboriginal skull (Tas. Mus. A (E.H.) 558).

Fig. 2. Reduced outline of Neandertal skull, from cast in the Tasmanian Museum.

(Note:—In the absence of a dioptograph these outlines were obtained from actual photographs of the Specimens.)

*Between existing processes.



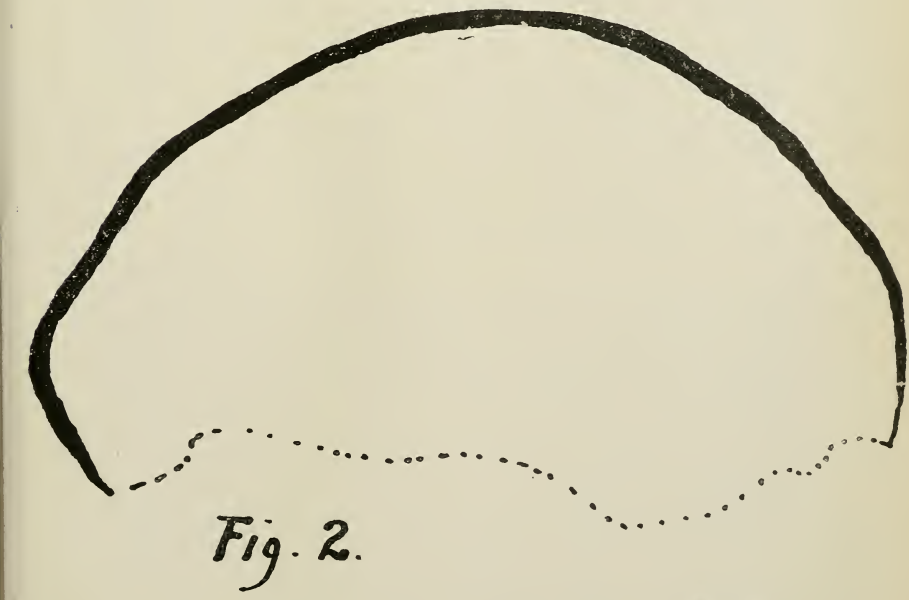


Fig. 1. Outline of Tasmanian Aboriginal Skull (Tas. Museum A. (E.H.) 558.)

Fig. 2 Outline of Neandertal Skull.