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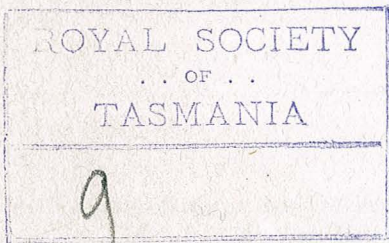
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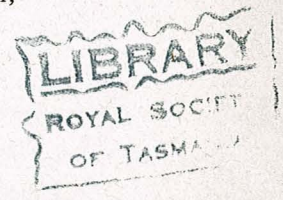
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ON THE
OSTEOLOGY AND PECULIARITIES

OF THE
TASMANIANS,
A RACE OF MAN RECENTLY BECOME EXTINCT.



BY

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ROYAL SOCIETY OF TASMANIA

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There is an unusual interest in contemplating the native inhabitants of Van Diemen's Land, for, within the last century, they have passed through all the phases of human history. Up to one hundred years ago, they occupied the Island alone, had unimpeded sway in it, and had done so for ages we cannot count. They had not been interfered with by any other race of man. In the interval they have been invaded by Europeans, have had to resist and withstand the contact with people the most different from themselves in existence, and, as an inevitable consequence, they have gradually dwindled away, the last native having died within two years from this time, and they are now become entirely obsolete. Absolutely their historical period has not been longer than one century.

It possibly may be desirable to say a few words here concerning Van Diemen's Land. It is well known to be an Island, situated at the eastern extremity of the Southern coast of Australia, from which it is separated by Bass'Straits. The Island is about 250 miles long and 200 broad, and is not so large as Ireland. It was discovered in 1642 by Tasman, a Dutch navigator, was visited by Cook, by French and other European voyagers at different times, and taken as an English Penal Settlement in 1803. The number of native inhabitants, at its first discovery and up to the last century, has been estimated by the most accurate judges at about 7,000, by some at only 4,000.

It has now become a feeling of importance to gather up the stray records of this curious uncivilized people, and to preserve them permanently among the archives of the history of man. The earliest voyagers who visited the Island made a few slight observations upon the natives, which were far from being so complete or so correct as they ought to have been. When it became an English Penal Settlement

in 1803, nothing was thought of the indigenous inhabitants, save as annoyances which stood in the way of the occupation of the land by the criminals who were exiled to it. The intercourse of the exiles, particularly with the women of the native tribes were frequent, and as a natural consequence, there sprang up between the two races injuries, hatred, and reprisals on both sides, so that for a series of years the two races were at violent enmity with each other. Until at length in the cause of humanity it became imperatively necessary for the public authorities to stop the long series of barbarous reprisals, and at the same time, if possible, to preserve the remnants of the people from speedy destruction. The extraordinary history of the events which then occurred are out of the track of this memoir, yet probably known, at least in their outlines, to most of its readers. At all events, it will be recollected that the late Mr. George Augustus Robinson, under the patronage of the then Governor of Van Diemen's Land, after the labours of some years, succeeded in collecting together the different remains of the native tribes, by a method which was designated *Conciliation*, and they were subsequently superintended and more or less efficiently cared for and provided for at different retreats, until the last waif has succumbed in the natural course of human decay.

The history of this indigenous people perhaps exceeds all others in its curious details, but we must not here pursue it. Our business is rather to gather up the scattered remnants of the race, to point out their discriminative value in the history of man, and to place it on permanent record. These objects we propose to attempt by the description of the skeleton of a Tasmanian and some skulls of the race; by a comparison of these with those of Australians, with whom they have been blindly and erroneously confounded. We shall endeavour to support the view, that the two constitute two different and distinct races of man, by an enumeration of the diversities that are still recognizable in their physical peculiarities, habits, manners, etc.

The osteological remains of the Tasmanians are the most permanent of their personal relics, and consequently almost the only relics of this kind that they have left behind. During the gradual extinction of the race, and after men of science awoke to see the advantages of the study of craniology, skulls were occasionally brought from Van Diemen's Land, and now and then passed into collections where they have been preserved. Blumenbach, the father of the science, was never so fortunate as to obtain one. There are nine Tasmanian crania in the Museum of the Royal College of Surgeons of England. Two of these belong to the old Hunterian collection, and are probably the first skulls that came into the hands of one who appreciated their value. A third was presented by Sir Everard Home, probably in the early part of this century. Four others in my own collection were in all likelihood obtained at quite as early a period, as they were procured by me from the collection of Deville, the

phrenologist, and two of them had been presented to the Museum of Joshua Brookes, the anatomist ¹). There are four crania of Tasmanians in the Army Medical Museum, now at Netley. There are eight skulls of this people in the Anthropological Museum of the Jardin des Plantes at Paris, and a very few others on the continent of Europe, one at Berlin and another at Vienna. There appears not to be any true specimen in the Mortonian collection at Philadelphia, but there are some skulls in the Museum of the Royal Society of Tasmania, at Hobert Town ²). So that crania of Tasmanians are rare objects, and now not to be met with in any collection in anything like abundance. I believe I possess the largest number in my own, and they amount to only a dozen. One chief reason for this great scarcity of Tasmanian crania is to be referred to the mode in which they disposed of the dead. Fire was usually invoked in this disposal. They also often placed the dead body in a hollow tree, with spears, etc. about it, so that on the occurrence of any accidental bush-fire, or other source of conflagration, the body and even the bones were sure to be consumed. Two of the skulls in my collection have been rescued from the fire.

Until within the last three years there was not a skeleton of a Tasmanian to be met with in any European museum. During that period the entire bones of four individuals have reached England, all of which have been artificially articulated; and there are now two skeletons of this extinct race in the Museum of the Royal College of Surgeons of England, one of a man, and the other of a woman; another of a man in the collection of the London Anthropological Institute; and the fourth and last, of a man also, in my own collection; which I owe to the great zeal and generosity of Mr. Morton Allport. We shall embrace all these skeletons in our table of measurements. Very few of their works of art have been preserved anywhere. A few examples of the beautiful necklaces made by the women from the iridescent shells of the *Purpurus Elenchus*, threaded upon thin sinews; and a few exceedingly rude stone chippings, or implements, made from a dark coloured chert, probably of volcanic origin, exactly like that, employed by the Kanakas of the Sandwich-Islands, are the chief examples,

¹) *Thesaurus Craniorum*, Catalogue of the skulls of the various Races of Man in the collection of Joseph Barnard Davis, M. D. p. 267, 8. Two of these had been presented to Mr. Brookes by Mr. Goodwin, Surgeon, R. N. The two others were presented to Deville by Dr. Greig and Mr. Espie, Surgeon.

²) A valued correspondent informs me, that there are two skeletons of Tasmanians in this Museum. One of these is the skeleton of „Malabackanieena”, the leading chief of a Tribe which roamed over the southern end of the Island, where Hobert Town now stands, when Tasmania was first colonised; the other of „Cooneana” or „Patty”. There are also nine undoubted Tasmanian skulls, besides seven others, said to be Tasmanian, some of which are certainly not such.

besides fishing nets, that I know of. I have a more finished stone implement of an oblong form with one extremity slightly sharpened by grinding, which was employed by the women without any handle in notching the bark of trees, up which they climbed in an ingenious manner in search of the opossum. On the south and west coasts, the natives formed a kind of float or catamaran from a rush, of which I possess a native model. The native spears, which were thin sticks of a heavy hard wood called *tea tree*, and about ten feet long, pointed and also hardened in the fire, at both ends, they straightened by passing them from end to end between their teeth; string made of sinews and of indigenous vegetable fibres; and baskets formed of reeds of different kinds, were almost all the other works of their art.

A serious error has been committed by many who had ample opportunities of observation in more or less confounding the Tasmanians with the natives of Australia. On the first discovery of Van Diemen's Land, it was considered to be a portion of New Holland, which we now denominate Australia. It was not until the expedition of Bass that it was determined to be an Island. There is no doubt the inhabitants are two different and distinct races of mankind, and this we shall endeavour to point out. Still such persons even as Geo. Aug. Robinson, who collected the remnants of the tribes of Tasmanians together and was afterwards appointed their Protector, and subsequently held the same office of Chief Protector, at Melbourne, Victoria colony, in Australia, so that he had every means of comparing the two races with each other, always confounded them and spoke of the two peoples as one. This admits of a very easy explanation. Robinson had no pretensions whatever, to be regarded as a man of science, or to be an accurate and exact observer, and his writings are chiefly remarkable for the absence of definite and precise information concerning the curious people among whom he spent so much of his life. Nevertheless some of his observations, which he recorded at the time, forcible show that the two races differed essentially. Robinson was a man of strong religious tendencies, and by these he was mainly supported and directed during all his labours. He regarded the Tasmanians with deep sympathy as a people who had been greatly injured by the white races, and went among them as their conciliator and liberator, with a firm, however futile, conviction, that he would have been able to raise them into a state of civilization and to convert them to the Christian religion. From his point of view, the missionary point, the two races were quite the same, uncivilized, injured, devoid of education according to our notions, without knowledge such as European races attain to, and without religion, therefore worthy of his utmost sympathy. Consequently with him they were undistinguishable, however diverse they might have been proved to be from his own observations and convictions. Many Europeans who have visited both Van Diemen's Land and Australia confused the

two native races under the common designation of „Blacks”, a most unfortunate term that was applied to them, although they were both, considerably removed from Negroid blackness. The Tasmanians had a skin of a dull dark colour, approaching to brown. The colour of the Australians has been said by the most careful observers to be chocolate, coppercoloured or nutmeg coloured. In the splendid work of Mr. Geo. F. Angas, „South Australia Illustrated,” he defined it „a purplish copper-tint” and in his plate of coloured *typical* Portraits, it appears such, certainly extremely remote from black. So that we may say positively, neither of these two races were black, or even approaching to black. Far from it.

In the general appearance of the Tasmanians there was a striking difference from Australians. The former were a stout, robust looking people, with broad shoulders. This we know Robinson observed. The latter are mostly remarkable for thinness and slenderness or lankness which gives them a tall appearance. We have the testimony of Prof. Huxley, who visited both countries, as to the diversity of the two peoples. Probably this is the most important and valuable contribution to anthropology to be attributed to this source, as he speaks, decidedly, saying the Tasmanians „are totally different from the Australians”. The words of his friend Sir Jno. Lubbock, are equally emphatic. He says: „the natives of Van Diemen’s Land are quite distinct from both Australians and Polynesians”¹⁾.

The Tasmanians were not a tall people but rather short. They were below the average stature of Europeans. This will be seen when we come to the measurements of some individuals, and their skeletons. Three skeletons of men have respectively a length of 64.6 inches, or 5 ft. 4.6 in., 62.4 inches, or 5 ft. 2.4 in., and 63.5 inches; giving an average of 63.5 inches, or 1612 millimètres. The skeleton of the woman measures only 55.5 inches, or 4 ft. 7.5 in. or 1408 mm. From a series of measurements made under the direction of the late Mr. G. A. Robinson, I find that the actual stature of 23 Tasmanian *men* varied from 5 ft. 1 in. i. e. 61 inches, or 1547 mm. to 5 ft. 7.5 in. i. e. 67.5 inches, or 1713 mm. which gives an average of 5 ft. 3¼ inches i. e. 63¼ inches, or 1618 mm. That of 29 *women* varied from 4 ft. 3 in. i. e. 51 inches, or 1295 mm. to 5 ft. 4½ inches, i. e. 64.5 inches, or 1630 mm. giving an average for the women of 4 ft. 11¼ inches i. e. 59¼ inches or 1503 mm. Still there were instances of tall stature among the Tasmanians, as among other races. About 1833, Mr. Robinson succeeded in securing 26 aborigines at Port Davey, near the Southern extremity of Van Diemen’s Land, several among whom were said to be above six feet in height. There is sufficient evidence for us to conclude that the Australians are a taller people. Mr. Augustus Oldfield, a careful

¹⁾ Origin of Civilization. P. 392.

observer, says: „In stature there seems as much variation among these savages” he is speaking of the natives of the western coast of Australia, „as there is among civilized nations, the mean height being no greater than it is in England. Out of 13 Shark’s Bay natives who visited the Murchison, in 1850, twelve were above five feet ten inches in height, while the last, the most lively and pugnacious of the party, stood only four feet nine inches ¹⁾. The testimony of Mr. Jas. Bonwick respecting the stature of the Tasmanians is as follows. He says: „Dr. Story informs me that the general size of the Tasmanian men was from five feet two, to five feet five; the women in proportion to the men of course smaller”. He adds, as the result of his own observation „They were not generally so tall as the Australians, though stouter”. This latter is a feature in which the Tasmanians differed from the Australians in a very striking and obvious manner. Robinson always recognized the natural robustness of the Tasmanians, and how they exceeded the Australians in this quality, for the latter are lean, and this peculiarity does not depend as some have hastily assumed, upon their innutricious food, for it is an inherent race-peculiarity, which is to be demonstrated as we shall see in their bones even.

There is an interesting question which is now never likely to be solved in a satisfactory manner. What was the amount of difference among the different Tribes of Tasmanians? We know that there were different and distinct Tribes in the Island, which certainly differed to the extent of having distinct languages, mutually unintelligible. Whether the physical diversities between these different Tribes were such as to lead to the inference that they were distinct, or what was the extreme amount of these diversities, are exceedingly curious questions, which cannot now be definitively solved. Mr. Staniland Wake and Dr. Paul Topinard have lately investigated the Tribes of Australia, which have been hitherto unconsciously blended into one; the investigation has unfortunately been based upon hypothetical grounds, and they have maintained that there are essential physical differences between the different Tribes, so as to allow of the Australians being divided into two races, one woolly haired, and the other flowing haired. Whilst we cannot deny the existence of some diversities among the Tribes of Australia, which must be regarded as a great continent, we must up to this time acknowledge the truth of the doctrine of the late Mr. John Crawford, the distinguished Anthropologist, who maintained that the man of Australia is peculiar and distinct from all others, and thus constitutes one of the best defined varieties of the human species.

There is one striking diversity between Tasmanians and Australians, which has been often pointed out, *the difference in the structure of their hair*. The Tasmanians had

¹⁾ On the Aborigines of Australia. Trans. of the Ethnological Society. Vol. 3, p. 215.

hair growing in small corkscrew ringlets. The Australian hair is much like that of Europeans and grows in long flowing ringlets. The individual hairs among the Tasmanians are fine, and in section, of a very excentrically elliptical or flattened form. Upon this form depends the tendency to twist, and the kind of curlyness which is seen in these small corkscrew locks. This peculiarity allowed them to load the hair with red ochre, and make it thus hang down in separate small ringlets of varying length. Such ringlets give a distinguishing character to all the correct portraits of the Tasmanians. The Tasmanian hair was in colour what is commonly called, black really of a very dark brown, nearest in tint to N^o. 41 of Professor Broca's chromatic tableau.

Some difficulty might have been experienced in describing the hair of the women, for these had the habit of shaving the hair off the head, and in many cases burning it off. It is said they used a sharpened stone to shave the head with, but on the advent of Europeans they employed a piece of a broken glass bottle when they met with it. The women considered this shaven head added to their charms. It was one of the futilities of fashion, which include all mankind in their sway. It is remarkable that among another dark Oceanic race, the Mincopies of the Andaman Islands, who have a hair of exactly the same kind as the Tasmanians, in growing in slender spiral ringlets, the women shave off the hair in the same manner, and also procure a broken glass bottle for this purpose when they can. From this custom it has been difficult to obtain specimens of the hair of Mincopie women. The one I have was procured from the head of a young woman taken into civilized society for a while at Penang, during which time, her hair being uninterfered with grew. She was called „Mary Andaman”. It should not be omitted to be mentioned that the singular practice observed by the Tasmanians of carrying human bones suspended from the neck by fine native cords, most probably as memorials of affection, is the exact counterpart of that which prevails among the Mincopies. Leg bones, thigh bones, arm bones, all generally broken, often lower jaws, and sometimes skulls, are neatly wrapped with this cord and so worn by both these races. To prevent any erroneous inference, it is best to say that these practices are mere coincidences among very different peoples.

It should be remarked that this growth of the hair in distinct spiral tufts is *natural* to those races, who possess the peculiar crisp excentrically elliptical hair of the Tasmanians and Mincopies. It is not at all a work of art, but spontaneous; although some of those whose views of human races have been formed upon missionary models have gone so far as to maintain that this form of hair is merely a matter of fashion ¹⁾.

¹⁾ Polynesian Reminiscences. W. T. Pritchard p. 425. Oceanic Races their hair etc. J. B. Davis, Anthropol. Review VIII. 183. A few notes upon the Hair of Oceanic Races. J. B. Davis, Journ. of Anthropol. Institute II. 95.

The Tasmanians had no deficiency of hair, but were well provided on the head, face, chest, pubes and other parts; they had whiskers, moustaches and beard; but all of the same slender character, inclined to twist into spiral tufts. On the borders of the whiskers there were little tufted pellets of hair, like pepper-corns, upon the cheeks. The beard grew precisely in the same manner, and the pubic hair was not different.

The Tasmanian had a broad, but not elevated nose. Across the alae it was very broad, yet in most cases it was decidedly low. In a cast of the face in my collection from a Tasmanian man taken during life, the nose is not prominent but broad; the upper lip, or space between the nose and the mouth, deep; the mouth wide, but of a calm pleasant expression.

The manducatory apparatus and teeth are evidently formed on the same massive model as those of the Australians. The jaws are powerful, the individual teeth are all large, the grinding surfaces of the molars especially so. In all these respects the Tasmanians agree closely with the Australians, the New Hebrideans, Loyalty Islanders and other races of that series, and contrast forcibly with European races.

There is a peculiarity in the physiognomy of Tasmanians, which is also expressed in their crania, that has long impressed my own eye, but I do not know, whether I shall be able to describe it in words, so as to make it understood by others. It is in my sight a particular roundness, or spheroidal form, which manifests itself in all the features. The prognathous mouth and jaws project in a round prominency, which tends slightly towards a muzzle, whilst the short face cut off above the nose makes a somewhat globular appearance, and the forehead is mostly decidedly convex or hemispherical, distinct from the narrowness of the Australian. Dr. Paul Topinard has made a profound investigation into the peculiarities of the Tasmanian skull, and has described it with minuteness. He says, there are certain marks in this cranium that enable him to recognize it any where. He describes these as "at two or three centimètres from the bregma there begins to be marked out a convexity of an oval form, which contracts, and freeing the bregma, is transformed into an antero-posterior crest. This hollows in the middle to receive the sagittal suture, seems to double itself, and terminates about half way between the anterior and posterior fontanelles. Upon the sides of this crest at about a centimètre before the coronal suture, take their rise at the same time two antero-posterior grooves, which hollow more and more as they proceed, and end equally at half the length of the parietals. Lastly, quite outside are situated the parietal bosses, very much developed, even conical" ¹⁾. I do not observe these marks so strikingly manifest in some of my Tasmanian skulls, still I do not doubt their characteristic nature, as Dr. Topinard says he meets with them in all the Tasmanian crania of the Museum.

¹⁾ Étude sur les Tasmaniens. Mém. de la Soc. d'Anthrop. de Paris III. 309.

After a very elaborate and minute examination of the skull of the Tasmanians, Dr. Topinard gives the following summary of its features.

„Globular cranium, but dolichocephalic, without notable transverse depression at the rise of the forehead, swelling rapidly from before backwards, with rounded sides, and ample and conical parietal bosses. No frontal crest, but a characteristic disposition of the vault which is denominated *keeled*. Posterior parietal region inclined.

“Face short, relatively broad and developed in its upper and interorbital parts, which gives to the orbits, to the notch above the nose, and to the intersuperciliary space special characters. Superior maxillary shortened vertically, widened across and as if depressed under the cranium. Lower jaw small in all directions. Malar bones small, moderately separated, put to the front, their anterior surface looking well forwards, their outer surface well outwards, lastly, prognathism moderate” p. 319.

The thickness and heaviness of the bones of the skull, even in women, are very characteristic. They are fully equal, if they do not exceed those of the Australian. They constitute a decided peculiarity of the race. In the small woman's skull, N°. 1763, which has had the calvaria saw off, the thickness of the frontal and parietal bones is 0.4 inch, or 6 mm. The weight of this skull is one pound, thirteen ounces or 29 ounces, Avoirdupois.

The result of Dr. Topinard's researches shows that the orbits in the Tasmanian skulls are small. He says, the first aspect of the cranium is a savage and sinister expression, arising from the peculiarities of the upper part of the face. This is no doubt correct, still, I have reason to think that the expression of the countenance of a Tasmanian, especially of the mouth was generally mild, if not benevolent. Such it clearly appears to be in the plaster cast of the face of a Tasmanian man already mentioned, and the roundedness, or spheroidal form I have alluded to, is opposed to a savage expression. Another character Topinard remarked in the face of the skull, is the heaping up of the bones in the median line, and thus the shortening in its vertical diameter.

Perhaps the most striking result of his comparison of the Tasmanian skull, with that of the Australian refers to the degree of prognathism of the two. Dr. Topinard's researches upon prognathism have been the most extensive and exact of any hitherto made, hence the value of his observations. He divides his measurements into two series, one gives the superior alveolar dental prognathism, the other the inferior alveolar mental (*mentum*, the chin) prognathism. In both series, and all his lines of measurement the Australian much exceeds the Tasmanian cranium in its prognathism. His conclusion is: „the Tasmanians are moderately prognathous, and in every sense considerably less so than the Australians”. This is another and important essential difference.

Dr. Topinard employed in his investigations in order to facilitate his description of the skulls and to aid his comparisons, a series of Parisian crania and another of Breton skulls.

His inquiries also extended to the internal capacities of the crania, and the configuration of the brains they had contained, and his conclusions are these: „The anterior lobes of the brain have *nearly the same* relative development in the two series of skulls, i. e. the Tasmanians and the others. The anterior part of the posterior cerebral lobes is *a little less* developed in the Tasmanians. The posterior part is *much less* developed. The cerebellum is more voluminous in the Tasmanians, by a quantity approximately equal to the loss which the posterior cerebral lobes undergo”.

And here I possess the plaster cast of the interior of the Tasmanian woman's skull N^o. 1763 * which gives the correct form and size of the brain. This shows a considerable fulness of the lobes of the cerebellum. This cast is nearly undistinguishable from the figure given in the splendid Atlas of Dumoutier's anthropological appendix to Dumont d'Urville's Voyage ¹). But contrary to Dr. Topinard's observation, the posterior lobes of the cerebrum project decidedly farther back in my cast than in Dumoutier's Tasmanian woman's brain. The olfactory lobes also descend down more deeply.

On arriving at the skeleton of the Tasmanian, who has been a man of about thirty years of age, with his mature dentition complete, N^o. 1761 † of my collection, I propose, in order to bring out its peculiarities as clearly as possible, to compare it with another skeleton in my possession, that of a young Australian man of about twenty years of age N^o. 1262 †. One of the most important general remarks to be made is that the bones are of the usual robustness seen in European skeletons, in this respect quite different from those of the Australian, which are slender. In a former memoir, I endeavoured to indicate more precisely the gracility of the bones of Australians by measuring the circumference of the femur in the middle at its slenderest part ²). In the Tasmanian man it is 3.3 inches, or 83 mm. in the Aïno woman it is exactly the same; whilst in the Australian woman of my collection N^o. 1261 †, it is only 2.7 inches or 67 mm. In the Aïno race there is reason to think that the bones are unusually robust, and in the Australians unusually slender; nevertheless in individual Australians this slenderness may not be so apparent. Whilst I believe the bones of Tasmanians may not be unusually robust, when compared with those of European skeletons, still they are moderately so, and the difference between them and those of Australians cannot be overlooked.

¹) Voyage au Pol Sud. Anthropologie Pl. 47.

²) Description of the skeleton of an Aïno woman, etc. J. B. Davis. Mem. of the Anthropol. Soc. of Lond. III. 21. With figures.

It is decided. In the case of the male Australian N^o. 1262†, the same circumference of the femur is only 3 inches, or 75 mm. In a female Australian in the Museum of the Royal College of Surgeons, N^o. 5184, it is only 2.8 inch. or 70 mm. whilst in the male Tasmanian at the College it is 3.5 inches or 89 mm. in the female it is 3 inches or 77 mm. and in the male Tasmanian in the Museum of the Anthropological Institute, it is 3.2 inches, or 81 mm.

Circumference of the Femur in the middle at its slenderest part

Tasmanians

N^o. 1761 † ♂ . . . 3.3 inches, or 83 mm.

Anthrop. Inst. ♂ 3.2 inches, or 81 mm.

R. C. S. Engl. ♂ 3.5 inches, or 89 mm.

0 3.0 inches, or 75 mm.

average 3.2 82

Australians

N^o. 1262 † ♂ 3.0 inches, or 75 mm.

R. C. S. Engl. N^o. 5184, ♀ 2.8 inches, or 70 mm.

N^o. 1261 † ♀ 2.7 inches, or 67 mm.

average 2.8 70

As above stated this Australian skeleton, has been regarded as belonging to a man of about twenty years of age. The mature teeth are all fully developed, and the sphenoid-occipital synchondrosis is entirely ossified, yet the epiphyses of the long bones have not yet received ossific union to the shafts, so full maturity has not yet been quite obtained.

The sutures between the alisphenoid and the parietals are longer in the Australian skull than in the Tasmanian. This appears to be a rule. The Tasmanian skull in this male skeleton is very prognathous, more so than in the Australian, which does not accord with Dr. Topinard's observations. This prognathism is both supra-buccal and infra-buccal. The chin is not to be called defective, in either skeleton, but is decidedly more prominent in the Tasmanian. The anterior nasal orifice corresponds to that figured by Dr. Geo. Williamson, as occurring in one of his Tasmanians skulls, except that there is no elevation in the base line ¹⁾. The teeth are massive and fully developed in both skeletons. The upper incisors are also wide in both, especially so in the Tasmanian. The last rib is three inches long in both skeletons alike, which is different from the skeleton of the Australian woman described by Professor Owen, in which this rib was little more than an inch in length ²⁾.

¹⁾ Observations on the Human Crania in the Museum of the Army Medical Department 1857, p. 52.

²⁾ Catalogue of the Osteological series of the Mus. of the Roy. Coll. of Surg. of Engl. p. 805.

The ilia are decidedly more everted in the Tasmanian. In the Australian they are exceedingly upright and resemble in this respect the same bones in the XXVIIth Table of Dr. Gustav Fritsch, of the pelvis of a male Kaffer ¹⁾. The humeri are more slender in the Tasmanian than in the Australian, contrary to the general rule. There is not any olecranic foramen in the humeri of either skeleton. The shins are straight and not of sabre form in either. The patellae are larger in the Tasmanian.

As might have been expected, there are not any extended observations upon the internal capacities of Tasmanian skulls, still, those which have been made, go to confirm the general doctrine which has resulted from our investigation so far they show that the Tasmanian had a larger brain than the Australian. The result of my own measurements may be stated in a few words. They are these:

Brain weights of the skulls of *Men*.

	HEAVIEST.		LIGHTEST.		AVERAGE.	
	oz. av.	grms.	oz. av.	grms.	oz. av.	grms.
7 Tasmanians	48.38	1371	37.22	1055	43.42	1230
17 Australians	53.35	1512	36.71	1040	42.25	1197

Brain weights of the skulls of *Women*.

4 Tasmanians	41.89	1187	35.39	1003	38.82	1100
7 Australians	44.08	1249	34.15	968	39.62	1123

Mean of Sexes.

Tasmanians	41.12	1165	42.25	1197
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Mean of Series.

Mean internal capacity in cubic inches	82.8
Australians	40.93 1160
Mean internal capacity in cubic inches	81.8 ²⁾

By this Table it will be seen that in 24 Australian skulls of both sexes, the mean weight of the brain would be 41.38 ounces av. or 1173 grammes, which is equal to a mean internal capacity of 81.1 cubic inches; whilst in 11 Tasmanian skulls of both sexes the mean weight of the brain would be 42.25 ounces av. or 1197 grammes, which gives a mean internal capacity of 82.8 cubic inches. This shows that the Tasmanians exceed the Australians, if we assume the proportion of the sexes to be about the same in each series, in having a brain. 87 ounce or 24 grammes

¹⁾ Die Eingeborenen Sud-Afrika's 1872.

²⁾ Contributions towards determining the Weight of the Brain in the different Races of Man. J. Barnard Davis, Philosophical Transactions, 1868 p. 512.

heavier; or an internal capacity of skull superior to the extent of 1.7 cubic inch. The observations of Dr. Topinard, although given in different terms, are precisely to the same effect. The internal capacity given in cubic centimètres, is for Tasmanian men 1376 c. c., women 1103 c. c. affording a mean of 1331 c. c. whilst in the Australian skulls, the mean amounts to only 1224 c. c. or 107 c. c. less. So that we thus attain in this element of our comparison the surest and most indisputable evidence of the essential difference of these two races of man, and of the cerebral, hence most probably intellectual and moral superiority of the Tasmanian. This under all the conditions almost amounts to a demonstration.

With the knowledge of this fact, we should suppose the inventive powers of the Tasmanians would exceed those of the Australians; but when we come to examine the proofs we possess, we find, as in so many other instances, that there are other elements which must have entered into the problem, but which were absent, and this absence has stood in the way of the abler Tasmanians. There may have been some extra stimulus to the invention of the Australian, either in his wants, or the climate or conditions to which he has been exposed, which we are unable to define. It is true that he dwells in a country much less fertile and less abounding in food than the Tasmanians; a very likely thing to give a spur to the inventive faculties of the Australian. Indeed it seems to me probable that it was the abundance of food in Tasmania that is the most likely cause of the non-invention of two of the implements, which in the hands of the Australian are so necessary in the chase. There may have been a peculiar construction of mind, and probably there is, in the Australian to enable him to invent mechanical objects. Still were we to allow him this, it would not satisfactorily solve all the requirements of the problem. As Watt is said to have invented the steam-engine, and has thus been the means of diffusing through the civilized world immense powers not before dreamed of, so some remote Australian, more acute than his neighbours, observed that by throwing a light and crooked piece of stick, or wood from the hand into the air, it might be made to revolve in definite courses and strike certain objects according to the desire and aim of the operator. Another reflecting Australian, most probably at a period of remote antiquity, when engaged in throwing his spear for war purposes, or more likely to kill the Emu or Kangaroo for food, observed that the friction of his hand interfered with its velocity and diminished its impetus, when the happy thought occurred to him that these impediments might be met and the friction entirely avoided, by balancing the spear upon a separate light piece of wood to be retained in the hand when the spear was launched from its upper surface. Thus would be invented, at first in a rude elementary manner, yet capable of surprising improvement and also facile expertness by training and use, those beautiful and wonderful Australian implements, the *bomer-*

ang and the *wommer*a or throwing stick, both of which may be said to be indigenous in Australia, and not known elsewhere. These curious instruments in the educated and expert hands of Australians are capable of being so applied as to excite the astonishment of an European, especially so when he finds by experiment that he is utterly unable to imitate the native evolutions.

However they were invented, and there does not seem any improbability in the case we have supposed, we know that these implements were discovered in Australia, a country in which there was the most ample field for their use, and that some Australian invented them. They were totally and entirely unknown to the Tasmanians, a people who lived in a climate certainly very different from Australia, but who lived a similiar hunter's life, and had to subsist upon the Emu, the Kangaroo, and the Opossum, like the Australian. The Tasmanians had indeed the waddy, a short stick made of a hard wood, which they threw with to a rotary motion, so as to kill a bird on a tree, and which thus held the place of the bomerang, but is a far less elegant and delicate weapon than the bomerang, although employed for some of the same purposes.

Still this apparent defect of inventive faculty does not rest solely upon the Tasmanian, who had a larger mass of brain. There are many other races of man on the globe who live in forest-clad countries, and have to subsist upon the game they catch, who have unquestionably higher powers of mind than either Australians or Tasmanians, to whom the bomerang and throwing stick would have been instruments of incalculable value, yet who have never succeeded in discovering them, so that it cannot be any reflection upon the mental faculties of the Tasmanians that they did not hit upon the invention of these mechanical helps to economize force and reduplicate their muscular efforts. In truth, the bomerang and *wommer*a of Australia never passed into the hands of the inhabitants of the Islands and of New Guinea on the north. The races of eastern Asia, the Giliaks, the Goldis, Manyargs, the Toungous and others, who inhabit a country covered with forests in which they have to find their subsistence, have never invented either a bomerang or a *wommer*a. And the same may be said of the Pacific Islanders in general, who are universally and equally ignorant of these curious appliances. The like also may be affirmed of all the American races, who are not at all devoid of skill. Although out of our immediate course still it may be mentioned, that the ingenious instrument of the Asiatics, of the Pacific Islanders, and the American Indians, apparently simpler than those we have been alluding to, the bow and arrow of such endless service to the subsistence of these races, was never discovered by the Tasmanians, or even by the Australians, another evidence that the invention of implements is not commensurate, wholly and simply, with cerebral development.

A further remarkable deficiency among the Tribes of both Tasmania and Australia, which excites our surprise, is the entire absence of pottery. Of the whole of the people inhabiting the latter large continent not any is known to have hit upon the device of baking clay, after modeling it into useful forms. And among many races who had no natural vessels such as the pericarps of fruits afford, out of which calabashes might have been fashioned, it is quite astonishing that no individual ever devised the simplest article of pottery that might be used for a drinking vessel. This is a puzzling fact for those who devise hypotheses for the origin of Australians and Tasmanians from other races, at least, such as were acquainted with the art of making earthenware. In some portions of Australia where long droughts are experienced, and where water vessels seem almost essential to the existence of man, the natives have been reduced to the necessity to use the dried calvarium of a deceased person, prepared by cementing the sutures with the gum of the grass-tree (*xanthorrhoea*), over which they ingeniously stick portions of the shells of the native oyster, to keep the resin from being rubbed, or washed off. This water vessel thus nicely prepared, is not in use among the Australian Tribes in general, but was prepared solely by some of those of the Colony of South Australia, which itself shows the local circumscription of inventions among uncivilized races. It was wholly unknown to the Tasmanians, perhaps hardly needed by them, who were equally unacquainted with the art of pottery.

The shield is another of the arms with which the Tasmanians were entirely unprovided. Both Tasmanians and Australians were alike adepts in the use of the spear, equally for hunting and for war purposes, but the latter only had invented the shield for defense, in the use of which they manifest the greatest expertness.

Nothing is so completely demonstrative of the perfect isolation of the Tasmanians as the facts we have been speaking of. They were situated at no great distance from Australia, but a little more than 300 miles, and yet we have every proof that could be expected, that this strait had not been passed at any period, either from Australia on the north, or Tasmania on the south, before European races discovered these countries. This is a most important fact against those who base their views upon the migrations of human races, and their almost universal spontaneous diffusion, and it receives the most substantial confirmatory evidence in the distinct physical characters of the Tasmanians. The very essential difference in the implements of the two races justifies the conclusion that they have remained unconnected from the remotest period. This position is still further confirmed by the fact that, among the animals of Tasmania there were no native dogs, which would have been almost sure to have been met with, had the Australians ever passed from their continent to the southern Island. And it is also unquestionable, that neither the Tasmanians, nor the Australians of the south, had any boats with which to cross Bass's Strait, although

there are many intermediate islands in this sea, wholly uninhabited when discovered, which divides the two countries. A singular difference in the cultures of the two peoples refers to the practice of circumcision. Circumcision was totally unknown and unheard of among the Tribes of Tasmania, whilst among those of Australia it is very general, probably universal.

It was the conclusion, as before remarked, of the late Mr. John Crawford, a most accomplished anthropologist, that the Australians constitute a homogeneous race, which is quite peculiar to their own continent, and not to be met with in any other region of the globe ¹). And even Mr. Chas. Darwin says of them: „the Australian aborigines rank amongst the most distinct of all the races of man” ²).

There is one point of resemblance to the Australians in the customs of Tasmanians, or at least some of them, hitherto unknown or overlooked, but which results from our examination of their skeletons. Those of the man and the woman, in the Museum of the Royal College of Surgeons have had teeth punched out at an early age. This custom of knocking out front teeth at puberty or on others occasions common amongst the Kanakas of the Sandwich Islands and some other races, is not known to have been practised by Tasmanians and is not attributed to them in any account that I am acquainted with. Still the condition of the skeletons named, leaves no doubt whatever that it has prevailed. The male skeleton at the College has had the two middle upper incisors punched out in this manner, and what is more singular, that of the woman also has had the whole four upper incisors knocked out in the same manner. The alveolar process in both is absorbed and wholly effaced. Among the Australian Tribes this practice is spread generally. It must have been exceedingly rare among the Tasmanians most likely confined to one Tribe, as nothing is known of such a custom by those best acquainted with the Tasmanians.

The races with which systematists have united the Tasmanians in their arrangements of mankind, and the trivial grounds upon which these alliances have been based, form a subject of too insignificant a nature to deserve to detain us. Systems are generally built up by an incorporation of much that is imaginary; although they may at times be of some use in grasping the vast varieties of man. They are often unable to withstand an appeal to facts. All that can be said with truth is that the Tasmanians are not Australians, they are not Papuans, and they are not Polynesians. Although they may present resemblances to some of these, they differ from them all substantially and essentially. From all this we are justified in asserting that the Tasmanians were one of the most isolated races of mankind which ever

¹) Dictionary of the Malay Language, Vol. I p. CLXXVI.

²) The Expression of the Emotions in Man and Animals, p. 19.

existed. That they were a peculiar and distinct race of people dwelling in their own island, and different from all others. And they have been one of the earliest races to perish totally by coming into contact with European people. Their record now belongs wholly to the past. It has been fitting therefore, that we should have described the relics of the Tasmanian man, and endeavoured to give him that permanence of record, which he will owe to the Transactions of one of the most celebrated of the learned Societies of Europe, which is always ready to embrace in its proceedings any valid contribution appertaining to the chiefest of human sciences — anthropology.

DESCRIPTION OF THE PLATES.

- Plate I. Skeleton of a male Tasmanian, aged about 30 years.
„ II. Skeleton of a male Australian, aged about 22 years.
„ III. Skull of a male Tasmanian, aged about 30 years.
„ IV. Skull of a male Australian "Malgoey Bob", aged about 35 years.
„ V. Brain of a Femal Tasmanian, aged about 45 years, vertical view.
„ VI. Same brain, profile view.
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TABLE OF MEASUREMENTS OF ARTICULATED TASMANIAN AND AUSTRALIAN SKELETONS IN ENGLISH INCHES AND IN MILLIMETRES.

	No. 1761†. Tasmanian ♂, æt. c. 30.	Tasmania n Anthrop. Inst. ♂, æt. c. 30.	Tasmanian R. C. S. Eng. ♂, æt. c. 25.	Tasmanian R. C. S. Eng. ♀, æt. c. 25.	No. 1262†. Australian ♂, æt. c. 22.	Ecker's Australian ♂, young.	Kerferstein's Australian ♂, old.
1. Height of the Skeleton. From the Vertex to the prominence at the base of the Os Calcis	64.6 in. 1640 mm.	62.4 in. 1584 mm.	63.5 in. 1612 mm.	55.5 in. 1408 mm.	66.6 in. 1540 mm.	59.7 in. 1514 mm.	63.1 in. 1677 mm.
2. Length of the Vertebral Column. From the upper surface of the Atlas to the lower surface of the last lumbar vertebra	20.6 523	21 533	18.8 477	18.7 459	19.5 496	19.7 500	21.7 550
3. Length of the Os Sacrum, in a right line	4.2 107	4.2 107	3.5 89	3.7 95	3.6 91	..... .....	4.3 110
4. Breadth of the Os Sacrum	3.9 99	3.6 92	4 102	3.9 99	3.2 82	3.7 93	3.8 95
5. Height of the entire Pelvis. From a line on the level of the top of the Cristæ Ilii to another on a level with the lower surface of the tuberosities of the Ischia	6.2 175	7.6 192	7.3 185	6 151	6.8 170	..... .....	..... 200
6. Distance between the Cristæ Ilii, inside	9.2 234	9.2 234	9.6 243	9.4 237	7 178	..... .....	9.5 240
7. Distance between the Anterior Superior Spines of the Ilii, inside	8.2 208	8.2 208	9.2 233	8.4 214	5.3 134	7.7 195	8.1 205
8. Transverse diameter of the superior opening of the Pelvis	4.2 107	4.3 119	4.5 114	4.7 120	3.8 97	4.3 108	4.3 110
9. Conjugate diameter of the superior opening of the Pelvis	4 101	4.1 104	4.1 104	3.9 99	3.6 91	4.3 108	4.2 105
10. Pelvic Index, or ratio of conjugate to transverse diameter, taken as unity . . . . .	.94	.95	.91	.83	.93	.100	.95
11. Transverse diameter of the outlet of the Pelvis. Inside the tuberosities of the Ischia	3 76	3.1 78	3.2 82	4.1 105	3.3 83	3.8 96	..........
12. Conjugate diameter of the outlet. From the lower edge of the Symphises Pubis to the tip of the Sacrum	4.3 109	4.6 117	4.4 112	4.6 117	4.2 111	..........	..........
13. Breadth of the shoulders. From the outside of one Acromion to that of the other	11.9 302	11.9 302	14.5 368	12.4 315	12 304	11.3 286	..........
14. Length of the Humerus, extreme length	12.3 312	12.1 302	12.3 312	10.5 266	12.5 317	12.1 305	12.4 315
15. Length of the Ulna, extreme length	10.8 274	10.4 265	11.2 284	10.5 266	10 253	9.7 245	..........
16. Length of the Radius, extreme length	9.9 251	9.7 246	10.4 265	9.2 234	9.2 233	8.9 224	9.9 251
17. Length of the Hand. From the upper arch of the Os Lunare to the point of the middle finger	6.6 167	7 178	7.5 190	8.2 208	6.6 167	6.3 159	6.9 175
18. Length of the whole upper Extremity	28.6 725	28 710	29.8 755	24.5 622	28.9 736	27.2 688	29.6 750
19. Length of the Femur, extreme length	18.2 463	17.1 434	18 458	15.3 388	17.7 450	16.6 420	17.6 445
20. Length of the Tibia, extreme length	15.1 383	15 380	15.6 395	12.2 309	14.8 378	14.2 360	14.4 365
21. Length of the Fibula, extreme length	14.6 370	14.2 360	15.3 338	12.5 317	14.6 370	13.5 342	..........
22. Length of the Foot, extreme length	8.5 215	9.2 234	9.1 231	7 177	8.2 208	7.9 201	8.7 220
23. Length of the whole lower Extremity	35.2 893	34.5 875	35.4 898	29.3 743	34.1 870	32.5 823	34.7 880
24. Proportion of the length of the Arm to that of the Leg = 1.00, of No. 18-23 . . . . .	.81	.81	.84	.81	.82	.83	.229
25. Proportion of the length of the Radius to that of the Humerus = 1.00 . . . . .	.80	.80	.84	.78	.73	.73	.79
26. Proportion of the length of the Tibia to that of the Femur = 1.00 . . . . .	.82	.87	.86	.80	.84	.85	.82
27. Proportion of the length of the Femur to the Stature . . . . .	.28	27.4	28.3	88	29.2	27.7	26.8
28. Angle formed by the arch of the Pubes	62°	68°	70°	92°	68°	.....	.....