



An Account of the Chatham Islands, Their Discovery, Inhabitants, Conquest by the Maories,
and the Fate of the Aborigines

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FEBRUARY 15TH, 1870.

DR. BERTHOLD SEEMANN, V.P., IN THE CHAIR.

THE minutes of the previous meeting were confirmed.

C. W. Eddy, Esq., M.A., 24, Abingdon Street, S.W., and E. Shiemann, Esq., 47, Gerrard Street, Soho, were elected Fellows.

The following presents were announced, and thanks were voted for the same :

FOR THE LIBRARY.

From the AUTHOR.—*Antropologia dell' Etruria*. By Dr. G. Nicolucci. From the ROYAL INSTITUTE OF PALERMO.—*Giornale di Scienze Naturali ed Economiche*, 1869.

From the SOCIETY.—*Journal of the Ethnological Society of London*, No. 4.

From the SOCIETY.—*Mémoires de la Société Royale des Antiquaires du Nord*, 1868.

From Professor STEENSTRUP.—*Oversigt over det Kongelige danske Videnskabernes Selskabs*, Copenhagen, No. 5, 1868 ; No. 2, 1869.

From the SOCIETY.—*Proceedings of the Royal Society*, No. 186.

From Dr. E. T. RYAN TENISON.—*The British Medical Journal*, to date.

From the AUTHORS.—*Life and Sport in South-eastern Africa*. By Chas. Hamilton, Esq., and F. G. H. Price, Esq.

A paper by Mr. E. A. Welch and Dr. Barnard Davis, F.R.S., was read as follows :

An Account of the Chatham Islands, their Discovery, Inhabitants, Conquest by the Maories, and the Fate of the Aborigines.

The Chatham Islands were discovered, about the year 1792, by Lieut. Broughton, one of the expedition under the celebrated Vancouver, and consist of the Great or Chatham Island (Whare-kauri), Pitt's Island (Rangiourea), South-east Island (Rangitira), and several outlying rocks, some of which are dignified with the name of islands, but there is neither timber nor bush growing on them. The islands are situated near the forty-fourth degree of south latitude, and about 176° west of Greenwich, or about four hundred and seventy miles east of New Zealand.

At the time of the discovery of the Chatham Islands, they were inhabited by a peaceful, harmless, and inoffensive people, who were then supposed to be identical with the natives of New Zealand, or Maories. Such is what I have been informed, as I have never seen any account of the discovery, and, of course, there is no early information concerning the natives to speak of, except what is gleaned from themselves and the earliest residents among them. These people—*i.e.*, the aborigines of these islands—are called *Moriors*, a title, I believe, bestowed on them by the Maories. They appear, from the evidence of a white man named "Coffee", who lived amongst them some years before the conquest of the islands by the Maories, to have been a simple, harmless race of people, living in the most primitive style, without any fixed residence, and without huts or dwelling places, except of the most frail description—these consisting of two poles

stuck in the ground, and a cross-piece from one to the other, against which a few branches of trees were placed in a sloping position, with some flax-leaves to form a shelter. These were their only dwelling places, and were mostly at the outskirts of the bush, where the surrounding timber sufficed to break the wind, and shelter them a little from the rain. These huts were used for a day or two, as they wandered about from place to place, wherever food was most abundant.

Their only garments were flax-leaves plaited or woven into mats, and worn round the loins. They were idle in the extreme, only seeking food when pressed by hunger, and depending mostly on what was cast ashore by the sea—a stranded whale, grampus, or porpoise being an especial delicacy, as was also a seal or mass of whale blubber, which being often cast ashore was looked upon as the gift of a good spirit who supplied their wants. Having no land animals, they depended upon such means and the abundance of shell-fish for their subsistence: their food consisting almost entirely of the delicacies above enumerated, the mutton-fish, Pawa (*Haliotis*), the Pipi, a delicate white bivalve, much esteemed by Europeans, several of the Echinidæ, sea crayfish, eels, and other fish, and a peculiar fish, zoophyte, or marine animal, called “Kaio” by the aborigines, but named by Europeans sea tulip. Their vegetable food consisted of the root of *Pteris esculenta*, which was generally dried in the sun and roasted; the stems of the Mamaku tree-fern were eaten in the same way, and also the pith of the Punga punga tree-fern, and the heart-leaves of the *Areca sapida*. But the most peculiar part of their vegetable diet was the fruit of the Karaka tree called Kopi. This fruit, when ripe, has very much the appearance of a small apricot, and is similar in taste, but much stronger. After the fleshy pulp is removed, there remains a stone with a thin shell, containing a kernel. This forms the edible part, and the method of its preparation is as ingenious as the South American mode of preparing cassava from the root of the *Jatropha manihot*. It is first roasted in a kopra, or oven, which is simply a hole made in the ground, in which a fire is kindled. When the fire has burnt to a mass of red coals, a quantity of stones are thrown in and allowed to get hot. These are then covered with green leaves, and the kopi nuts are thrown in; a fresh quantity of leaves are then placed on the top of them, some water poured in, and the whole is then covered up with earth and allowed to remain some time. When the nuts are uncovered they are cooked, and are ready to undergo the next process, which consists in putting them into a suitable receptacle and placing them in a running stream, where they are allowed to remain for at least three weeks, at the end of which time they are considered fit to eat. They have then a striking resemblance in odour to the spent bark usually thrown out of a tanner’s yard. If these nuts should be eaten raw, they are poisonous, and cause death; and even if eaten after the first part of their preparation serious illness is a certain result. I have seen one poor fellow at Matarako, on the east side of the island, who had lost the use of his limbs entirely from paralysis caused by eating kopi nuts after they had been cooked, but prior to their being steeped in running water.

Though the Morioris are destitute of any chronological knowledge, they have a tradition of their ancestors having come to the islands in two canoes, but are totally unable to fix even approximately the date of such arrival: they cannot surmise how many generations have lived and died since that time, nor have they any means of counting days or years, or of conveying any correct idea whether an event occurred twenty years or only a week ago. They say that one of these canoes was preserved for a long time, and the other was blown out to sea; but they do not know what their form was, and have no idea of boats or canoes except their own wretched crafts, composed of the flower stalks of *Phormium tenax* made basket-like, and tied together with strips of the leaf and young karreao, or supple-jack vines. These frail rafts were filled in the lower part with kelp, or bladder wrack, and other floating sea-weeds, which gave them sufficient buoyancy to enable them to be taken a little way out to sea and on the lakes to fish; and some of the fishermen would often sit in one of these frail barks up to his knees in rotten sea-weed, as they never took out the first lot put in, but continued to heap in fresh quantities in order to keep up the floating powers of this primitive ship. Probably the want of timber suitable for the purpose prevented their making canoes of a more substantial nature, as they possessed stone axes like the New Zealanders. The operation of felling a tree was, however, a considerable undertaking, involving, according to their accounts, a month's labour; and probably this prevented their making wood rafts, which would have been infinitely more safe, and as easily propelled with the same means as they propelled their flax rafts—namely, with a paddle of wood shaped like a spade, and used at the stern. There may possibly be some truth in their tradition as to the way in which their ancestors arrived at the Chatham Islands; for a tradition of a similar nature is told by the Maories of the way in which their ancestors arrived at New Zealand from Hawaiki. Still it has been supposed by some that the Morioris were the original inhabitants of New Zealand, and were driven from that country by their Maori conquerors.

The Morioris appear to have been a cheerful, good-tempered race of people, fond of singing and telling stories, and ardent believers in spirits, both good and evil. They believed that all food was given them by a good spirit named Atua, which is the Maori word for God, though they do not appear to have believed in the existence of a God in the sense that we do. Nevertheless, they evidently entertained a belief in a future state, as, when one of their number died, it was believed that his spirit would descend into the sea and send them some large fish ashore, and after a death they usually made fires on the sea-beach, and watched anxiously, day and night, for the expected gift. Even their conquest by the Maories, their assimilation to the habits and manners of the latter, and their intercourse with Europeans, have failed to shake this belief, as, in September 1867, one of the oldest of their people died at Waikarapi, four miles from the settlement of Waitangi, and was buried near his hut, and it was believed that when his spirit descended into the sea he would send them some large fish ashore. So strong was the impression, that fires were

lighted on the beach, and they watched day and night for four days, when a large grampus was cast ashore within half a mile of the old man's whare, and a general rejoicing followed to celebrate the event. Their belief in evil spirits was, I rather think, confined to the idea that, after the death of one of their number, an evil spirit came to carry away the soul of the deceased, and, in order to prevent such an occurrence, a fire was usually lighted, round which they ranged themselves, each holding a stick, tied to which was a bunch of spear-grass (*Gingidium Dieffenbachii*), meantime chanting a monotonous song. This was supposed to keep away all evil spirits, and was an invariable occurrence on the death of one of their tribe. This ceremony has died out from amongst them now, and when one dies they usually hold a tangi or wail for the dead, in the same way as the Maories.

Their language was, or is believed to have been, a dialect of the Maori language, or one so near to it as to have become easily assimilated to it, as at the present time there is no appreciable difference between them. But it is not at all improbable that theirs was a separate language, and that the slaughter of the greater portion of them, and the slavery to which the rest were condemned, may have obliterated their language entirely, and compelled them to use the Maori tongue, as being most intelligible to their masters. The Morioris do not appear to have had any hereditary chiefs or leaders. From what I have been able to learn from them, it appears that their usual method was to elect such as were considered the most useful. Thus any one who was distinguished for stature or prowess, or was a successful bird-catcher or fisher, was usually chosen as a leader, but did not possess more than ordinary power, being simply looked upon as a leader or judge. War was an art they did not understand, and, therefore, they did not require a chief to lead them in battle. Quarrels were very rare, and generally resulted from such an occurrence as appropriating a seal, porpoise, or mass of whale blubber, or such delicacies, that were the property of another. A fight generally ensued between the two parties, in which, it is said, they used wooden clubs and spears, or their stone axes, and whoever first drew blood was considered the victor, and the affair ended. This is a pleasing contrast with their conquerors, the Maoris, who seem to be never so happy as when engaged in a war. I have never seen any weapons amongst the Morioris; nor, indeed, have any of the oldest white settlers on the islands. Probably what weapons they possessed were taken from them at their conquest, and destroyed by the destroyers of the Morioris.

Their method of disposing of the dead was peculiar, and had special reference to the avocations of the deceased. Thus, a successful fisherman would be lashed to one of the frail rafts before alluded to, a baited line put into his hand, and the boat sent to sea with its curious freight. A bird-catcher would be lashed to some tree facing a spot where he had been more than usually successful, and left there, or placed upright in the hollow of a tree. Women, and those of no particular merit as sportsmen, were generally taken to some sandhill overlooking the sea, where a hole was made, into which the body was

put doubled up, so that the chin rested on the knees, and the head was always left above the surface of the ground—a style of burial that I have not heard of being practised by any other people.

They have been thought by many people to be a tribe of Maories; but, from what has been said, it will be seen that their manners and customs differ very materially from those of the Maories in nearly everything, and, apart from this, there is a great deal of physical difference between the two races. The Morioris are shorter, stouter, and more pleasing in expression than the Maoris; they are darker in colour, have the same lank black hair, have aquiline noses, and a Jewish cast of countenance, and do not tattoo themselves. The difference between them is so marked that one Moriori may be easily picked out from a hundred, or an indefinite number of Maories. The latter people know well the difference, and know them to be a different race, speaking of them with contempt as “black fellows”. It is said that they originally practised cannibalism, but had discontinued the practice before the arrival of the Maories.

The conquest, or rather the slaughter, of the Morioris took place about the year 1835. Some authorities have stated that the expedition to the Chatham Islands was undertaken for the purpose of a raid on these islands. The true state of the case stands thus. For some years previous to the year 1835, the Ngatimutunga tribe in Taranaki were continually harassed by a powerful chief of a neighbouring tribe, named Raupahara, and were decreasing very fast, being unable to withstand the continual assaults of this powerful chief. They had recourse to a system of emigration; and a number of the tribe, under the leadership of Pomare, their chief, chartered an English brig, the *Rodney*, to convey them to Whare-kauri, the Chatham Island, they having given it that name on hearing of it from one of their countrymen who had been there, and carried a good account of it to the natives of Taranaki. Accordingly they arrived there, and landed at Wangaroa, the *Rodney* immediately setting sail after landing her passengers. Here I may mention that the Maories, after landing, began to feel that there was a considerable difference between New Zealand and Whare-kauri, and that the latter lacked many of the advantages of the former. The absence of land animals, to which they had been accustomed, made animal food a delicacy. It is probable that this was the cause of the commencement of these cannibal orgies that so nearly depopulated the islands. Certain it is that once having begun, they carried their horrid practices to such an extent as almost to exterminate the original inhabitants. The usual way in which these feasts were conducted was to select a certain number of victims, who were made to carry the wood, light the fires, and dig the Koprass in which they were to be cooked, and make all ready for the feast. They were then laid in rows on the ground, and killed by a few blows on the head with a “mere” by one of the chief men present. At this day, the remains of these cannibal feasts are to be seen in every part of the island. At Tupuangi, on the western side of the island, there are hundreds of the skeletons of these unfortunate wretches lying near the sea-side, where the feasts took place.

At Okawa, on the north-east side, there are also a great many, this likewise being one of the chief scenes of their cannibal festivities. And even in the most secluded spots you frequently come upon the bones of some unfortunate victim: the larger bones broken to extract the marrow, and the skull also broken to get at the brain.

The Morioris say that, prior to the coming of the Maories, their people were as numerous as the flax-stalks, and that, notwithstanding their great number, there was never any lack of the necessaries of life, as there was scarcely a day but what some large fish or mass of whale-blubber was cast on the sea-beach, and furnished them with an unlimited supply of food; but that, after their conquest by the Maories, and the introduction by them of the potato and other vegetables, and land animals, as pigs, sheep, cattle, and other domestic animals, they have had to work for their food, and that the former supplies have gradually failed and become less every year. This method of enumerating their people is very similar to the American Indian saying, "numerous as the leaves of the forest", as indicating a number beyond their comprehension, and conveys no accurate idea of what their numbers were. However, there is no doubt that they were very numerous for the area of the islands. The number of skulls that are to be found in certain parts goes far to prove this fact; but, owing to the causes before mentioned, they have dwindled down to a very limited number, and at the present time do not exceed eighty or ninety altogether. Those who were saved from the general slaughter were held as slaves by their conquerors, and, being debarred the privilege of intermarrying, they have not increased since, and are becoming fewer every year, and in a few years may be expected to become totally extinct. During my residence on the islands, I was fortunate enough to procure a few skulls and an imperfect skeleton of the Moriori race, which I brought to England for anthropological purposes. These are now in the valuable collection of Dr. J. Barnard Davis, F.R.S., and are, I believe, the only authentic ones ever brought to this country.

From what I have been able to learn, the Morioris appear to have suffered from but few diseases; the commonest being a pulmonary affection called "mare-mare", and diarrhœa, "tiko-tiko". They were also troubled with a virulent form of scabies, called "haki-haki" or "turotiti", which is a really loathsome disease, aggravated very much by the determined scratching which they persisted in to allay the intolerable itching. During my residence amongst them, I was particularly successful in the treatment of this disease; and it was a common saying with them "*Taguta kipini te Atua*," which means "Doctor all the same as God."* Since the Maories and white men have been amongst them, they have, however, been subject to other diseases, some of which, particularly the measles, have been very fatal to them,

* The mode of treatment was by an ointment of sulphur, in the making of which a solution of corrosive sublimate was stirred before it cooled, telling them to wash frequently, and keep themselves clean. At the same time, a little Plummer's pill or antimonial powder was taken internally.

as also to the Maories.* With these few exceptions, I believe the Morioris to have been a fine healthy race of people.

They have been said by some people to bear a strong resemblance to the Stewart's Island Maories; but I think this is without foundation, as is also their fancied resemblance to the generality of the Kanakas.

There are many other interesting incidents connected with these islands; but they refer only to the Maories and white settlers, and not to the aborigines, and will not, therefore, prove of any great or special interest to you.

At the present time, the islands are inhabited by as varied and motley an assemblage of people as can well be imagined. There are Morioris, Maories, Kanakas, Negroes, Chinese, Spaniards, Portuguese, Danes, Germans, English, Irish, Scotch, Welsh, Yankees, natives of South America, a Manilla native, a Laplander, a Russian Finn, a half-caste native of New Holland, several Maori half-castes,† and a few whose nationality it is almost impossible to determine, forming as curious a mixture of races as could possibly be got together in such a small aggregate number.

Notes on the above, by J. BARNARD DAVIS, M.D., F.R.S.—It appears to have been on the 23rd of November, 1791, that Lieut. Broughton, the companion of Vancouver, discovered the Chatham Islands. His visit was attended with fatal consequences to the natives.

There may be some doubt whether at that time—or, at least, at the place at the north at which he touched, and which he named Scaramouch Bay—they might not have had canoes; for Broughton describes their vessels as frail barks, of eight or nine feet long, two or three wide, and two deep, with flat bottoms, and constructed of wood so light that two men could easily carry one of them on their shoulders. But it is more likely that Broughton really meant to describe the frail flax-rafts of Mr. Welch, which are irregular in form, sometimes almost square, at others rounded, and about two feet deep. The dimensions of those of the latter agree with Broughton's description, and they were remarkably buoyant, as Mr. Welch observes. He also adds: "There is no timber growing on the islands large enough to make boats of. There is a total absence of conifers, and the wood is generally of a dense, heavy character. The karaka, the largest, is said to be wholly useless for any such purpose." Broughton states that each canoe could only hold two or three persons.

The forest, on landing, was free from undergrowth, yet the trees were not large. The natives saluted in the New Zealand manner by rubbing noses, "hongī". They had stone weapons, like those of the Maoris, which they concealed by wrapping them up in a mat, and lances from six to ten feet long, two of which were carved on the

* I never saw a case of syphilis or gonorrhœa among the Morioris; but have treated both in Maories.

† The half-castes were European and Maori, with one exception, that being a Maori and Moriori. These half-castes are a fine, strong, healthy people, fertile when intermarried with one another and with both Europeans and Maories, and are on the increase.

shafts. Broughton speaks of the water on the island as being of a reddish colour and of a salt taste. Fourteen natives accompanied him along the shore, but his efforts to attain to a friendly intercourse with them were unavailing. At length, a young man advanced towards him with hideous grimaces, in a threatening and ferocious manner; but was arrested by Broughton's pointing his gun at the native's head. The native party then began the attack, when the Lieutenant fired a gun, loaded with shot, at them, with a view to deter them, and thus to enable the English to regain their boat. The blow of a heavy club knocked Mr. John Stone's musket out of his hands, which he recovered, and fired at the native who struck the blow. A marine and a sailor near were also compelled to fire, from the imminent danger to which they were exposed; next the officer in the boat fired, when the natives retreated. Lieut. Broughton was much pleased to see them run away; but had the mortification afterwards to find one man dead from a bullet wound through his heart, and to hear another lamenting, in a tone like howling, from the pain of his wounds.

The English saw no appearance of dwellings. Broughton describes the natives thus. The men were of middle stature, with their limbs full and robust. Their hair and beards were black, and some wore them long. The youths had their hair tied in knots on the top of the head, and intermixed with black and white feathers. Some among them had extirpated their beards. They all have a dark brown tint, with decided features and bad teeth. Their skins showed no signs of tattooing, and they seemed very clean. For clothing, they had the skin of a bear (?) or a seal attached round the neck by a netted cord, which fell down to the hips, with the hair outwards. Others had, in place of these skins, mats made very artistically, attached in the same manner, which covered their shoulders and backs. Some were naked, with the exception of a fine netted tissue, worn as a cord round the loins. We did not observe their ears to be pierced, nor that they wore ornaments on their persons, except some who had a necklace of mother-of-pearl. Many had their lines, which were made of the same substance as their nets, passed round the body like a belt, but we did not see their hooks. We distinguished two or three old men, who, nevertheless, did not seem to be clothed with any authority. All indicated much gaiety, and our conversation frequently excited bursts of laughter among them. It is difficult to give any idea of their surprise, and of their exclamations, when we landed. They pointed with their fingers to the sun and then to us, as if to inquire whether we had come down from it."

It will be seen that Broughton not only speaks of their stone weapons, but says they were like those of the Maories of New Zealand. Those stone implements that have been brought by Mr. Welch do not seem to be of the same pattern as those of the Maories. They are made of a very hard dark stone, which has a loud clinking resonance, yet is not so hard as the jade employed by the Maories. They appear to have been of the adze kind, and bear perfect cutting edges, which are remarkable for the obtuse angle at which they are

formed. They are now only to be found in the woods, and are very scarce, iron being of universal use at the present time.

The osseous relics of Morioris brought to England by Mr. Welch consist of three calvaria, two of men and one of a girl, two lower jaws, and most of the bones of a skeleton of a woman, except those of the head, viz., twenty-four vertebræ, pelvis complete, two scapulæ, two claviculæ, two humeri, two ulnæ, two radii, twenty-four ribs, two sterna, two femora, two tibiæ, two fibulæ, two patellæ, the bones of the carpus, metacarpus, and the phalanges of the fingers, some of them in duplicate, and the bones of the tarsus, metatarsus, and the phalanges of the toes, some of these also in duplicate.

No. 1598.—Calvarium of a man aged about 35. Has been exposed to the weather; is thick, small, and rugged, with a much depressed frontal; each limb of the lambdoidal suture is remarkably complicated in its denticulations. There is a round hole, which admits the tip of the little finger, through the anterior wall of the left superior maxillary into the antrum of that side. This orifice is quite regular, has its edges smooth, and no doubt existed in life. It is most likely the result of some serious injury. The teeth present a very unusual appearance of detrition. The third molars are absent, and seem to have been lost in early life; the two others are present on both sides, but are worn into the dentine. From the anterior edge of the first true molar on each side, the teeth before this point are worn down rapidly in a plane or curved line, which descends (really as the natural position of the head ascends) to the alveoli of the middle incisors, which are wanting. It is difficult to conceive how by any use all the anterior teeth could be worn away in such a manner—*i. e.*, sloping upwards from the first molars to a point on the surface of the alveoli of the middle incisors. The only similar cases that I am aware of are in the crania of "Giggeragou," an aged Maori chief (*Thesaurus Craniorum*, No. 156, p. 316), and another large Maori skull (*ib.*, No. 809), which possess the lower jaws, exhibiting the front teeth worn in a line which ascends upwards to the median point, so as to correspond with the wearing away of the upper teeth. It may be reasonably inferred that this peculiar mode of detrition of the teeth depends upon a special kind of food indigenous to both New Zealand and to the Chatham Islands—perhaps the roots and stems of the fronds of the tree-fern. It will be recollected that Broughton mentions the bad state of the teeth of the natives. Nasals are very prominent and aquiline in form.

No. 1608.—Calvarium of a man aged about 30. Is rather fuller and less rugged; still thick and bony, and has also been exposed to the weather. Exhibits a similar depression of the frontal. The sagittal suture is quite obliterated by ossification, and all the middle part of the lambdoidal nearly so. Nasals broken away. The molars and premolars are worn down into the dentine. Front teeth missing.

No. 1599.—Imperfect calvarium of a girl of about 10 years of age. This calvarium, which wants all the bones of the face, has a square opening on the left side, from the loss of a large piece of the lower posterior angle of the left parietal, no doubt the death-blow of the

child, and the absence of the sphenoid and ethmoid bones, which have been broken away to get at the brain for cannibal purposes. This calvarium was taken from one of the ovens in which the Maories cooked their victims on their invasion of the islands. It is very brachycephalic, and remarkable for the extreme width between the parietal tubers, which gives the norma verticalis a hexagonal form. The cephalic indices of these skulls are respectively—No. 1598, .74; No. 1608, .74; and No. 1599, .87. The internal capacities of the first two are expressed by 72 oz. and 76.5 oz. of sand. These are respectively equal to 87.5 and 93 cubic inches, which yield 44.2 oz. and 47.1 oz. for the weight of brain contained in each of the two skulls, the mean of which is 45.6 oz. This is very near to the average weight among male Maories, and among Oceanic races in general, of both sexes.

No. 1598A is a large heavy lower jaw, with the full complement of teeth. The wisdom teeth are not worn: hence it may be concluded that the man was not much more than 20. Still, the first molars are worn deep into the dentine, especially on the outer side; indeed, such is the case with all the teeth from the third molars forward, only not in such a great degree as the first true molars.

No. 1599A.—A smaller lower jaw of, perhaps, a woman of about the same age as No. 1598A, the teeth exhibiting exactly the same deterioration, in the same order.

No. 1610†.—Bones of an adult woman's skeleton. Some of the dimensions of these may be given; and, for comparison, I will add the lengths of the same bones in an Aïno woman (No. 1456†) and an Australian woman (No. 1261†), the former being distinguished by the letter A, the latter by B. The length of the humerus is 11.5 inches, and it presents the olecranal foramen (A, 11.3 in., B, 12 in.); of the ulna, 9.6 in. (A, 9.4 in., B, 9.6 in.); of the radius, 8.9 in. (A, 8.5 in., B, 8.9 in.); of the femur, 15.5 in. (A, 16.3 in., B, 16.3 in.); of the tibia, 12.5 in. (A, 12.7 in., B, 13.9 in.); of the fibula, 12 in. (A, 12.7 in., B, 13.1 in.). The latter measures show the unusual shortness of the lower extremities of the Moriori woman. All these long bones are not quite so robust, particularly the humerus, as the corresponding ones in the skeleton of the Aïno woman; and, likewise, they are all rather more robust, again particularly the humerus, than those of the Australian woman. The tibiæ present the sabre form in some degree, or are somewhat platycnemid.

It should be noticed that these bones agree in all respects with the account given by Mr. Welch of the singular mode of burial adopted by the Morioris. The skulls have been bleached by exposure to the weather; so also have the bones entering into the formation of the knee-joints, including the patellæ. These parts have not been covered when the body has been bent up and placed in the grave. The other portions of the bones are of a deeper colour, from the sandy soil with which they have been covered.

According to the ratio deduced by Professor Humphry, from twenty-five European skeletons of men and women, that a femur of 17.88 in. infers a skeleton of 65 in., or 5 ft. 5 in. in height, the stature of

this woman would have been about 56·3 in., or 4 ft. 8·3 in. Both in the robustness of the bones and in stature, all this agrees closely with what has been said respecting the natives of Chatham Island. Broughton stated that the men were of middle stature, with their limbs plump. Mr. W. Travers says that "they are much shorter, but stouter built than the New Zealanders."* Mr. Welch's testimony is, that the Morioris are shorter and stouter than the Maories. We thus arrive at decided physical differences between the two races; and, according to the evidence of Mr. Welch, there are striking moral differences also. It is a similar case to that of the Australians and Tasmanians, two races which have been so frequently confounded by superficial and prepossessed observers. In confirmation of the opinion upon this latter subject expressed in the *Thesaurus Craniorum* (p. 271), that of an accurate and unexceptional observer may be quoted. Professor Huxley, in his address to the International Congress at Norwich, in 1868, said: "You do not find that kind of man (his "Australoid") in Van Diemen's Land, which is only one hundred and twenty miles off. It has been my fortune to visit that part of the world, and I can speak of my own knowledge that that type is not to be found there. . . . In Tasmania, the people are totally different from the Australians."

Mr. Welch affirms the hair of the Morioris to be black; in some cases curly, but in the majority straight and coarse. The colour of the skin is No. 42 or No. 43 of Broca's "Tableau Chromatique." That of the eyes No. 1 or No. 2, the albugineæ being yellow.

Thanks to the authors having been given,

Dr. CHARNOCK said Broughton, who discovered the Islands in 1791, estimated the inhabitants at 1,200. The N. Zealanders located there are said to number 800. Dieffenbach thought that in 1840 there were not more than 90 of the original inhabitants. Had the population dwindled down from 1200, or from 400? Hale (in 1846) states that his information concerning the islands was derived from a sailor at the Bay of Islands who had lived some time at the former. This sailor stated that the people had a tradition that their ancestors were from the N.E. Cape of N. Zealand, and that the date of their arrival was about 90 years previously. Such information could only have been acquired by an intimate knowledge of their language, and yet no vocabulary was found in Hale's work. The same was also wanting in the paper. Now, although there was a considerable resemblance between all the Polynesian dialects, there was not much in common between the geographical names in the Chatham Islands and those in any other part of Polynesia. There is *wai* for "water," which is found in all the Polynesian languages, and the name Pohanta, a harbour of the Isles, might be connected with the Sandwich word *puuhonua*, a "place of refuge." Most of the other names agreed with those in the northern island of N. Zealand and the Bay of Islands. Thus, in the Islands are Warekauri and Wangaroa, and other names commencing with *ware*, *wai*, *wanga*,

* *Transactions of the Ethnological Society*, vol. iv, p. 354. This paper is much defaced by misprints. Pitt's Island is everywhere named "Pell's" Island.

as Wangatchi, Wangamoe, etc. In N. Zealand are bays called Waingaroa, Wangura, Wangari; rivers named Wangari and Waikare, and a lake Waikari. The N. Z. *waikare* signified "clear water," *waikeri* a river. Waitanga is the name of a bay in the Isles, and Waitangi of a place in N. Zealand, signifying "noisy water," from *wai* and *tangi*; whence probably the *tunga* or wail for the dead mentioned by the author of the paper. One of the Islands (a mere rock), Ranga Tira, would, in the New Zealand language, translate the "gentleman," whilst Rangitulahī, or "the sisters", would seem to be compounded of *tuavahine*, a sister.

Mr. RALPH TATE read a description of an inscribed rock on the banks of the Iguana, a tributary of the Orinoco, in Venezuela. This rock presented an incised marking which the author considered to be more ancient than the present inhabitants of the district.

A paper by JAMES CAMPBELL, Esq., M.D., was read "On Polygamy: its Influence in determining the Sex of our Race and its Effects on the Growth of Population." The author, who had been many years resident in Siam, gave minute details of the relative proportions of female to male births in the harems of the king and other important Siamese dignitaries. The result seemed to be that the proportions of males and females born were, as the case of Monogamist marriages, entirely equal. (The paper will appear at length in the *Memoirs*).

Dr. CHARNOCK thought the gist of the paper might have been founded on a mistake. He understood the author to say that there was a general impression that polygamy in the East gave rise to an excess in female births. This supposition might have arisen through a statement in one of the Cyclopædias—upon the authority of Montesquieu—that polygamy, in the East, was the *consequence* of the greater number of female births. The word "consequence" was frequently used in a very loose manner. The meaning here must be that polygamy was caused by the fact that in the East there were more females born than males; and this is what Montesquieu (who did not use the word "consequence") really stated. The truth of this could not be doubted, and on this account Bruce justified polygamy in the East. It was a known fact that in Japan there were born considerably more females than males; and Montesquieu states that in Bantam there were ten women to one man. This might be over-rated, but it was founded upon a statement made in a Collection of Voyages for the establishment of an East India Company. On the other hand, in the cold climates of Asia there were more males born than females, and polyandry was the consequence.

The following also took part in the discussion on the above papers, Dr. Richard King, Mr. Borwick, Dr. Carter Blake, Mr. Charlesworth, Mr. Lewis, and the Chairman.