

Institute of Canterbury on the 15th of September, 1874," Dr. Haast covered much interesting ground.

In the main the work was undertaken for the purpose of making extensive excavations with the view of finding evidence which would assist in helping to determine the question as to the period the moa became extinct. Several layers of sand and refuse beds denoted different periods of occupation, as did the results from the excavations among the sand hills outside the cave. These layers were referred to by the learned doctor as "kitchen middens." Writing of these he said, *inter alia*:—

"That there was distinct evidence of occupation by moa-hunters and later by shell-fish eaters and that the observations he was able to make at the junction of the 'kitchen-middens' of the moa-hunters and shell-fish eaters demonstrated that a considerable period has passed before the latter appeared on the scene."

He was reliably informed by the oldest Maoris in Kaiapoi that the shellfish-eaters had first been the Waitaha, the first immigrants who preceded the Ngatimamoe, who in turn had preceded the present native inhabitants. He also went on to say:—

"Seeing that these remains are assigned to the remotest period of occupation by the traditions of the natives themselves, the great division existing between the lower, or moa-hunters, and the upper, or shell-beds, with such a line demarcation, goes far to prove that an enormous space of time must have elapsed since the moa became extinct."

It also proved pre-Maori occupation in New Zealand.

Touching on the latter contention, may I digress to point out that this is borne out by Maori traditional history which discloses that there were Polynesian and Melanesian inhabitants in New Zealand long before the great migration. Arrivals by the Arawa, Tainui, Takatimu, etc., canoes found many of the choice spots along the coasts of New Zealand, occupied by "Tangata-Whenua" (natives of a particular locality).

Tikao in his talk with Herries Beattie spoke of the Rapiwai, Waitaha, and Nati-Mamoe, as Maori people and an elderly Maori or Maori of the Chatham Islands is quoted as having said that when Manuka, one of the Maori settlements was raided, the occupants fled to Ohikaparuparu, (between Mt. Pleasant and Redcliffs) and put out to sea, from there in an easterly direction and peopled the land found there, the Chathams.

The name "Ohikaparuparu" has been given two meanings that I know of: one, "Where so and so stuck in the mud," and "The place where sticks were rubbed together to make a fire with which to cook cockles in preparation for a journey." Personally, I prefer the last mentioned as it fits in to a certain extent with the Chatham Islander's story.

To return however to Dr. Von Haast's discoveries and in particular to the objects found in the cave, these are given in two appendices to the paper, i.e., B. and C. Included in the lower or moa-hunters' deposits were bones of the sea-leopard, fur seal, dogs, porpoise, moa bones, portions of moa eggshells, bones of birds and fishes, the tooth of a dog (bored at the base), a needle and an awl made from bird bones, fire light-

ing apparatus made from komaku and pukatea, portions of a fork made from manuka, a portion of a canoe and various stone implements in whole and in parts.

In the upper or Maori, deposits were found, bones of mammals and birds and many objects in bone, wood and fibre, including pieces of a tawa or spear, fernroot pounders, parrot stands, a Putatara trumpet which was used by chiefs to announce their approach, sandals made of flax, fish hooks, a knife made of manuka for use in opening pawa shells, fighting spears and among other things even the portion of a net used for catching whitebait. Most of these articles may be seen in the Maori section of the Canterbury Museum.

#### MONCK'S CAVE

This cave was not as large as the Moa-Bone Cave and differed from the latter by reason of the fact that it had not been open either as a temporary dwelling place for the Maoris or for exploration by the curious for many years. It was discovered on the 11th September, 1889, and from investigations made it was established that it had been buried for a century or two. It bore evidence of having been occupied by the Maoris but nothing in the nature of skeletons or human bones was found in it. One can thus assume that when the huge slip which sealed it up occurred it had no human occupant.

From the nature of the wood and stone from which the tools and other articles were made it seemed to point to the fact that its last occupants were from the North Island.

The discovery of the cave was made by workmen engaged in road-making. Mr Monck had kindly permitted material to be taken from one of his paddocks for this purpose. A length of 120 feet of spoil had been removed when the opening of the cave was laid bare. A son of Mr Monck was the first to enter it.

It was found that excepting for the decay of some perishable articles and some debris which had fallen from the roof here and there, it was practically in the same condition as it must have been in some hundreds of years before its reopening.

Geologically it was identical with its neighbour "Te Ana," the two being just about half a mile apart. Again, like the Moa-Bone Cave it had three chambers, but of smaller dimensions, although more regular as to size. As to the relics found therein, they seemed to denote that the previous occupants had been keen fishermen, as the following descriptions taken from the report of Mr John Meeson published in the Transactions of the N.Z. Institute Volume XXII will show.

A steer-oar of kauhi  $7\frac{1}{2}$  feet in length with a  $6\frac{3}{4}$  inch blade, a carved scoop with handle made of totara 15 inches by 8 inches, which had apparently been used for bailing the water out of the canoes. A fishing net poie 6 feet in length; thirty fish spears of bone in sizes varying from 1 inch to 5 inches in length; a number of stone sinkers up to  $3\frac{1}{2}$  inches in diameter. Floats of pumice stone, fishing lines of plaited flax, pieces of net; a large number of stone articles was also found: over a dozen stone adzes, some highly polished smoothing stones and a number of greenstone chisels, one shaped to gouge out the wood, a fern root pounder and a very highly finished bone needle 11