Anniversaries

Julius von Haast born 200 years ago

NEW ZEALAND PIONEER GEOLOGIST JULIUS VON HAAST (1822-1887)

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Fig. 1 - Portrait of Haast, taken about 1862 soon after he arrived in Canterbury.

Julius von Haast was born 200 years ago on 1 May 1822 in Bonn, then part of Prussia (Germany). After he emigrated to New Zealand, he became a pioneering geologist and museum director, known internationally for his studies of the moa, a giant extinct bird. Many of the specimens he collected are held in British and European museums.

Our knowledge of Haast's early days in Europe is sketchy. He clearly had a broad knowledge of science and some training in geology and mineralogy, but did not graduate from university.

He was always an optimistic extrovert, involved in a variety of business ventures. Being fluent in English, he was contracted by English shipowners Willis, Gann & Co to travel to New Zealand and report on the prospects for German emigration.

He arrived in Auckland on 21 December 1858, and the following day geologist Ferdinand Hochstetter arrived on the Austrian frigate Novara. Hochstetter was invited to undertake a reconnaissance geological survey of Auckland Province, and Haast asked if he could join him. Hochstetter, who had limited command of English, was pleased to have a German-speaking companion, and Haast was keen to learn about geology. They formed an effective partnership over the next eight months, and Haast rapidly gained knowledge and confidence in geological mapping.

After the Auckland contract was finished, Hochstetter was invited to visit Nelson Province, at the top of the South Island. The work was incomplete when Hochstetter had to return to Vienna, and he recommended that Haast finish the survey. This involved exploration of remote mountainous country, and was successfully completed by Haast, including the discovery of what was to become New Zealand's largest bituminous coalfield. Based on the report of his explorations, Hochstetter arranged for him to be awarded the degree of Doctor of Philosophy from the German University of Tübingen in 1862.

Canterbury Province, in the middle of the South Island was keen to have a similar geological survey. At the time a tunnel was being driven through volcanic rocks between the port of Lyttelton and town of Christchurch, but the contractor had given up after striking exceptionally hard rock. Haast examined the tunnel route and reported that they were tunnelling across a vertical dike, and correctly predicted that once this was penetrated there would be no further problems. This established Haast's credibility, and he was engaged to undertake a geological and topographic survey of the province which included the Southern Alps, the highest mountains in New Zealand. With a small party he undertook extensive fieldwork, often under difficult conditions, over the next four years.

Producing the first maps in a new country allowed Haast to name major topographic features after distinguished scientists (see examples in the table below).

Some examples of features named after scientists by Haast	
British Scientists	*European & US scientists*
Hooker Glacier	Mt Humboldt
Mt Owen	Agassiz Range
Mt Murchison	Mt Dana
Buckland Peaks	Mt Elie de Beaumont
Mt Mantell	Mt Haidinger
Mt Lyell	Liebig Range
Mt Darwin	Malte Brun Range
Mt Huxley	Mt D'Archaic

He also named the Franz Joseph Glacier, a prominent glacier that descends almost to sea level, after Emperor Franz Joseph of Austria.

Haast used his mapping to open correspondence with distinguished scientists he had named features after, and make them aware of his New Zealand explorations. For example, in June 1862 he wrote to William Hooker, Director of the Royal Botanic Gardens at Kew, saying that he was planning to create "a kind of Pantheon or Walhalla for my illustrious contemporaries", and had named the Hooker Glacier after him. It was the start of a long correspondence, when Haast regularly supplied New Zealand alpine plants to the Kew herbarium.

Haast was keen to establish scientific institutions in Canterbury. He founded the Philosophical Institute of Canterbury, and started to publish the results of his research in the Transactions of the New Zealand Institute. He began a museum, based on material that he had collected during his explorations, and took advantage of the discovery of a rich store of excellently preserved moa remains in a swamp at Glenmark. Haast excavated cartloads of skeletons which were transported to Christchurch where he and his assistant reassembled them. Until the 1860s, research on the moa was closely guarded by British paleontologist Richard Owen, but with a copious supply of new material Haast started to publish his own identifications, and in 1874 Owen rather reluctantly wrote, "I begin to feel that my share in the work of the restoration of the extinct birds of New Zealand is over …. You stand at the head of my successors in that Work, and merit every honour & recompense for your share in the Natural History of your fair islands". The Glenmark swamp excavations revealed fragments of a giant bird of prey, *Harpagornis*, subsequently known as Haast's eagle, the largest bird of prey ever known to exist.

Fig 2. Display of reconstructed moa skeletons from Glenmark Station. Photo: D.L. Mundy 1867.

Haast sent moa skeletons overseas to major institutions, using them as a way of obtaining valuable material for his own museum by exchange. Development of the Canterbury Museum became his passion, and he raised funds for the development of a fine stone building that was opened in 1870. With an impressive building and collections based on the spectacular moa displays and material imported from European museums, Canterbury outshone other local museums in the 19th century.

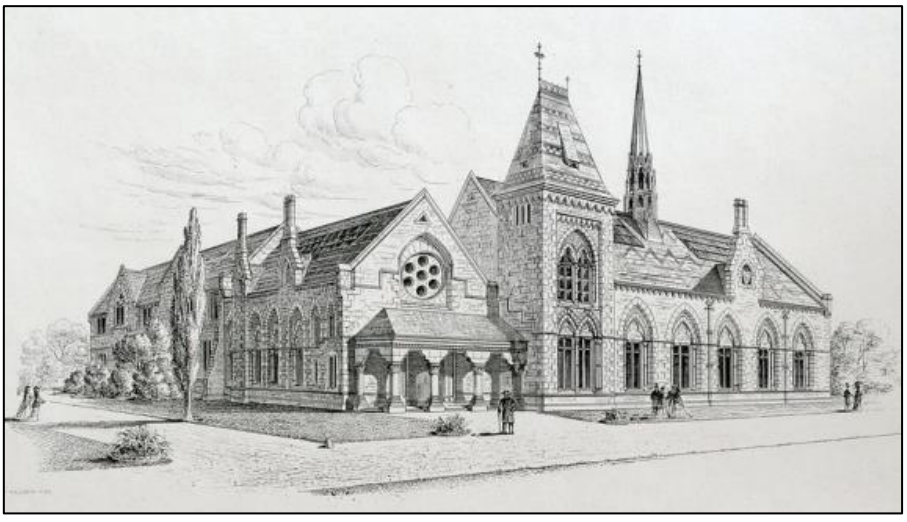

Fig 3. Canterbury Museum in the early 1870s

Haast's papers on the moa and his New Zealand explorations were read at the Geological and Zoological Societies of London, and the Royal Geographical Society awarded him a gold medal for his explorations. He was appointed the first Professor of Geology at Canterbury University College, part of the University of New Zealand. In 1875 the Emperor of Austria

conferred on him a hereditary knighthood which entitled him to call himself von Haast. Appointed New Zealand Commissioner to the Colinderies Exhibition in London, he was knighted by Queen Victoria. He died suddenly in August 1887, soon after returning from England.

Haast was a contemporary of James Hector, Director of the Colonial Museum and founder of the New Zealand Geological Survey. The two men, who sometimes worked together and at other times were rivals, laid the foundations of nineteenth century geology in New Zealand, and ensured that it was publicized overseas.

Further Reading

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