

To explore a most interesting and important, though very distant, part of your Majesty's dominions

Hochstetter, F. von Neu-Seeland. 1863.

Hochstetter, F. von New Zealand, its physical geography, geology and natural history. 1867.

Why is it that the German and Austrian visitors were the ones who were the scientists? Georg Forster, friend of Alexander von Humboldt, along with his father on Cook's second voyage, were naturalists and great observers and recorders of the new natural world around them. Johann Karl Ernst Dieffenbach, acquaintance of Darwin, Lyell and Owen, was the New Zealand Company's naturalist on board the *Tory* in 1839, and then in the 1860s two geologists, Ferdinand von Hochstetter and Julius von Haast met in New Zealand, arriving a day apart, and became good friends, exploring, surveying, collecting and travelling together, becoming founders of New Zealand geology, and more broadly, science at large.

Christian Gottlieb Ferdinand Ritter von Hochstetter (1829 – 1884) was an Austrian who was largely educated in Tübingen where he took to geology, and in 1852 was employed by the Imperial Austrian Geological Survey. His survey work, particularly in Bohemia, led to him being engaged as a geologist on the *Novara* expedition¹ that left Europe in 1857. On December 22, 1858, the *Novara* arrived at Auckland, and in the home of a Dr Fischer², a leading physician practising homeopathy in the town, Hochstetter met another German geologist, who had arrived a day earlier. Julius von Haast was born in Bonn in 1833. He studied geology and mineralogy, but there is not a lot of information on his early life in Germany.³ In 1858 he was commissioned by the British shipowners Willis, Gann & Co, to record the prospects for a large-scale scheme for German immigration. He met Charles Hursthouse at the shipowner's offices in London, and on December 21 of the same year he arrived in Auckland on the *Evening Star*. The meeting of the two scientists at Fischer's house proved momentous for both of them. Hochstetter records '*meeting such as true and*



Ferdinand von Hochstetter, in Vienna, c. 1865. Naturhistorisches Museum Wien



Julius von Haast, c1867. NSW State Library

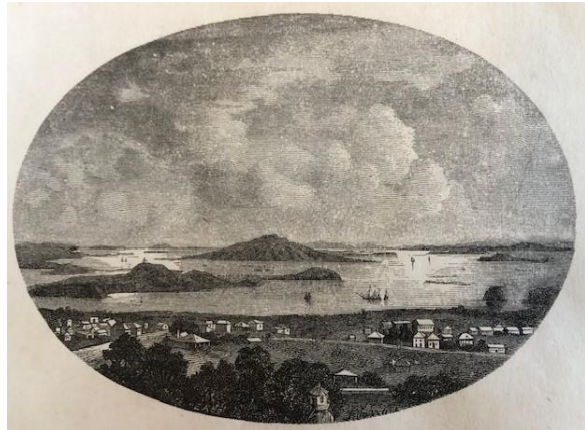
¹ The *Novara* expedition was organised by the Imperial Academy of Science in Vienna, the *Novara* being a frigate of the Royal Austrian Navy. The expedition had 7 scientists led by Hochstetter and the zoologist George von Frauenfeld, and covered oceanography, natural history, geology, and hydrology. The reports were provided to the Viennese Academy and published by Karl Scherzer, 1861-1862, with an English translation issued by Saunders, Otley & Co in 1861.

² Fischer arrived in Auckland in about 1853 or 1854 and established a successful homeopathic practice. He had fluctuating fortunes over the years, troubled by his free-flowing expenditure. He met up with Hochstetter again in 1887 in Vienna, and died of a fever in China while visiting his daughter in 1893. Michael Belgrave. 'Fischer, Carl Frank', Dictionary of New Zealand Biography, first published in 1990. Te Ara - the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1f8/fischer-carl-frank> (accessed 1 October 2023)

³ Von Haast, H.E., The Life and Times of Sir Julius von Haast, K.C.M.G., Ph.D., D.Sc., F.R.S, Explorer, Geologist, Museum Builder. Wellington, 1948.

trusty German who became henceforth my inseparable travelling companion....' And von Haast, equally enamoured, said that *'We soon met and understood each other, and gradually became united together by the warmest friendship, never clouded for a single moment, and only severed by death.'*⁴

Over the next year, Hochstetter laid the foundations for New Zealand geology. He was initially asked by the Auckland Provincial Government to survey the Drury coalfield, and was then persuaded to stay on to make geological surveys of the North island and Nelson. The *Novara* left Auckland in January 1859 without him. His Auckland survey included recording more than sixty sites of previous eruptions on the Auckland Isthmus, along with *'fossils, botanical and zoological treasures'*.⁵ Hochstetter then set out in March to survey the central North Island. Von Haast went with him



Entrance to Auckland Harbour. After a sketch by Charles Heaphy. Hochstetter, title page and p.4 of the German edition Neu-Seeland, p.5 of the English edition New-Zealand.

cementing their life-long friendship, as later expressed by Haast in a memoriam⁶, but it was not just the pair, the expedition included an expedition manager and interpreter, surveyor and artist, photographer, meteorological assistant, two servants, a cook and 16 Māori to carry the equipment and baggage, becoming something more heroic than a couple of scientists clamouring over the rocks.

The party travelled through the Waikato, to Taupo then the Rotorua thermal region, back north through Thames, returning to Auckland on May 24. The route is given in the fold-out map in both the German and English editions of his book. They stayed with missionaries such as the Rev Grace at Waipa, and the German missionary C S Volkner at Tauranga, the latter just prior to his departure to Opotiki and his later murder in 1865. They lived on pork and potatoes, and Hochstetter already had in mind the book he was to write, and the future display of his specimens in the Imperial Museum in Vienna. Although the country traversed had long been the home of Māori, and frequently traversed by missionaries, and more recently, militia and settlers, there had never been made such a detailed topographical and geological survey of the central North Island. In June he visited the Coromandel goldfields, and the copper deposits on Great Barrier and Kawau islands. It seems he was the man of the hour in Auckland, and the day after giving a lecture on the geology of the Auckland district at the Mechanic's Institute, the good citizens presented him with an inscription and a very mediaeval-sounding velvet purse containing £150.

Upon the invitation of the Superintendent of Nelson and the local Chamber of Commerce, Hochstetter and Haast sailed from Auckland on July 28th arriving in Nelson on August 3. Over the next couple of months they explored the region, particularly the gold and coal fields, and moa bones in Collingwood, which Haast and a surveyor companion, Maling⁷,

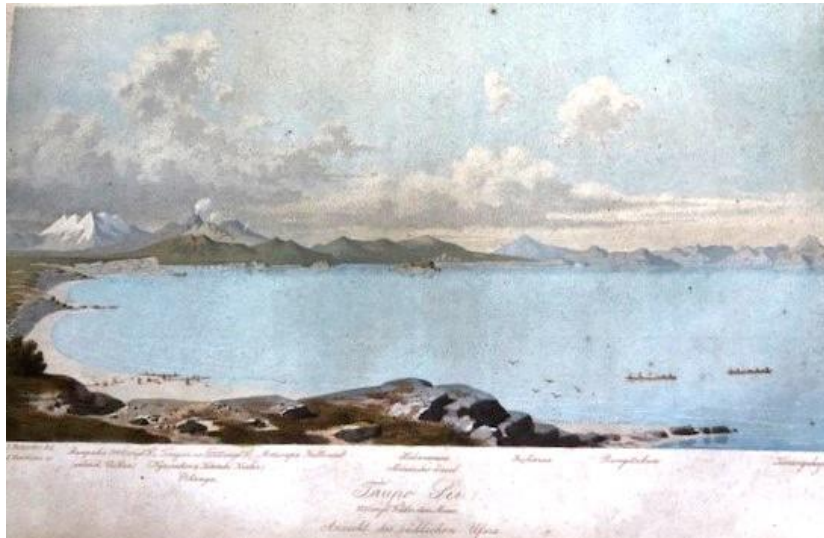
⁴ Ibid., p. 8.

⁵ Ibid., p. 21

⁶ Von Haast, J.F.J., In Memoriam: Ferdinand R. von Hochstetter. Dunedin, John Mackay, 1884

⁷ Christopher Maling (1843-1917) soldier, surveyor and artist. His father was killed at Wairau in 1843, and Maling was taken to Auckland by Bishop Selwyn and brought up by Capt. David Rough and his wife.

dug up and cleaned for Hochstetter to eventually take with him back to Vienna. Hochstetter was a celebrity in Nelson laying the foundation stone for



Lake Taupo North Island; view of the volcanic mountains (Tongariro and Ruapehu) on the southern shore. From ma sketch by the author. Hochstetter, German Edition p. 228, English edition p. 365.

the Nelson Institute, guest of honour at a dinner where the chair, a Dr Munro, stated that ‘...as a scientific man, Dr Hochstetter has no country in particular. Science has no boundaries. Its worshippers are co-extensive with nature and form a nation by themselves. Among them, I am happy to say, there is little jealousy and no paltry distinction. There is rivalry of course. But it is a rivalry in an honourable race, and the winning post is truth.’⁸ How little he knew scientists, and for that matter, Hochstetter himself, who showed he indeed had a country, leaving on October 2 to return to Vienna via Australia.

Over the next ten years Hochstetter worked through his specimens, records and writing geological reports. He found time to marry in 1861, a union resulting in four sons and four daughters.⁹ The first major result was his publication of *Neu-Seeland* in 1863. An English translation was issued by the same publisher in 1867.

Hochstetter, F. von *Neu-Seeland*. Stuttgart. Cotta'scher Verlag. 1863.

xx, 555 pp, frontispiece plus 5 coloured plates, 9 woodcuts, illustrations in the text, 2 folding maps at back. Bagnall 2626, Hocken 224

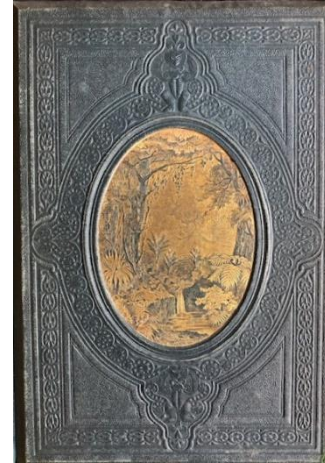
_____ *New Zealand, its physical geography, geology and natural history, with special reference to the results of Government expeditions in the provinces of Auckland and Nelson. Stuttgart, J.G Cotta, 1867. xvi, 515 pp, with 2 folding maps, frontispiece plus 6 colour plates, 10 woodcuts, illustrations in the text.*

⁸ *Ibid.*, pp. 27-32.

⁹ C. A. Fleming. 'Hochstetter, Christian Gottlieb Ferdinand von', Dictionary of New Zealand Biography, first published in 1990, updated July, 1990. Te Ara - the Encyclopedia of New Zealand, <https://teara.govt.nz/en/biographies/1h30/hochstetter-christian-gottlieb-ferdinand-von> (accessed 25 October 2023)

My copy of the first German edition has been rebound, sadly in blue cloth, making it look like a PhD thesis. The internals are very good however. My English edition is in the original embossed, green cloth covers with the gilt illustration on the front cover.

The chromolithographs are from sketches by Charles Heaphy (2), Dr Fischer, Hochstetter's party host in Auckland (1), A Campbell¹⁰ (Motueka valley), one from a sketch by Hochstetter himself (Lake Taupo), and one from a photograph of the Rotomahana terraces by Hamel. In the English edition there is a further plate from a sketch of the Mt Cook and Mt Tasman Glaciers done by Julius von Haast in 1886, obviously too late for the original German edition. In the English edition, the Fischer sketch of the forest at Papakura, near Auckland is placed earlier (p. 134) than in the German (p. 416). Bruno Hamel was the photographer on Hochstetter's expedition, and took the first photographs of the famous pink and white terraces, in 1859, destroyed by the Tarawera eruption in 1886.¹¹ The woodcuts are from a wide range of sources, including Heaphy, Hamel's photographs, sketches by Hochstetter, photographs by a Mr Stork¹², and sketches by Augustus Koch¹³, an artist on Hochstetter's expedition.



There is a dedication to *'To His Imperial Majesty, the Most Serene Archduke Ferdinand Maximilian is dedicated this work, the results of the Novara Expedition. With deepest respect, thank you, the author.'* In the English edition, Hochstetter is more fulsome, devoting a page of text as a dedication to Queen Victoria. It is dated Vienna, January 1868, and almost looks as though it has been tipped in, with the page size slightly smaller and a darker shade. The book's publication date is 1867. Was this an afterthought? In the German preface, translated in the English edition, Hochstetter points out that he was able to publish both a scientific work, backed by the Government, and this more popular book, where he is *'indebted to the kindness of Baron von Cotta, for the publication of the Book of Travels in a form worthy to stand side by side with the Narrative of the Novara-Expedition as published by the Imperial Printing Office at Vienna.'* The von Cotta publishing house, originally in Tubingen and then moving to Stuttgart in 1810, was one of Germany's most notable houses. Why did Hochstetter use a German and not a Viennese publisher? In his English preface, Hochstetter thanks the General Assembly and Government of New Zealand for undertaking to purchase 500 copies, so underwriting the English edition. He also thanks Edward Sauter, principal of the Little Rock Academy in Arkansas for translating the work during a stay in Germany in 1865. There are letters from 1868 in the Arkansas State archives regarding Sauter's gift of

¹⁰ Alexander Le Grand Campbell (1819-1890) arrived in New Zealand in 1842, was largely Nelson-based, and travelled and sketched with Thomas Brunner during his explorations of the West Coast, South Island, in the 1840s.

¹¹ An album of 32 expedition photographs was published in 1859: **Hamel, Bruno**, An album of photographic views, taken during the Government Scientific Exploring Expedition conducted by Dr Ferdinand Hochstetter, Geologist, of the Imperial Austrian Expedition, of the Province of Auckland. Auckland, 1859. Bagnall 2444, Hocken 195.

¹² To date, a 'Mr Stork' has not been identified. He is not in the usual list of early NZ photographers.

¹³ Augustus Karl Frederik Koch (1835-1901) was already in Auckland when Hochstetter arrived, and joined the company. He remained afterwards, pioneering photography, and developing a career in surveying and draftsmanship (see Una Platts, p. 148).

a copy of his translation of Hochstetter.¹⁴ The publishing of the English translation was not without its worries. It seems from correspondence among Hochstetter, Haast and James Hector in New Zealand, that Haast was a little hasty in writing to Hochstetter that the NZ Government had granted the £525¹⁵ for publication and Hochstetter had accordingly given the go-ahead. However, there was in the meantime a change in NZ, with the incoming Edward Stafford administration, and the money was not necessarily guaranteed. Hochstetter and Cotta stopped the printing and the former was concerned about having to carry the cost and wrote to Stafford to try to get the grant guaranteed. However, in the end all was fine, and the NZ Government belatedly approved the grant and got its 500 copies.¹⁶ Hochstetter made nothing from the publication.



Forest in the Papakura District near Auckland. From a sketch by Dr. C. Fischer. Hochstetter Neu-Seeland p. 416; New Zealand p. 134.

The English translation is not an exact copy of the original. As Hochstetter points out in his preface, it *'is not a mere translation of the German original.'* The chapters on colonisation, the Māori war, Māori poetry and statistics, he says, were intended for German readers, and he replaces them with chapters on physical geology and geography, and has rewritten that on the Southern Alps to take account of recent discoveries, and otherwise updated the original. The sequence of chapters is also different, with general chapters in the first part and more specific accounts of travels and regions in the second. He also begs his readers to be easy on him with regard to *'manner of expression and style'*, given *'neither author nor translator have written in their native language.'*

Both editions start with a chapter describing his 9 months in New Zealand. He doesn't seem to have arrived well prepared. While he enjoys the views of all the dead volcanic cones, *'...the first view of Auckland, I must confess, equalled by no means my brilliant anticipations*

¹⁴ <https://digitalheritage.arkansas.gov/cgi/viewcontent.cgi?article=3444&context=finding-aids> There is little information found to date about Edward Sauter, aside from some letters.

¹⁵ About \$NZ150,000 in today's currency.

¹⁶ **Nolden, Sascha**, *The Letters of Ferdinand von Hochstetter to Julius von Haast*. Geoscience Society of New Zealand, Miscellaneous Publication 133K, 2013. pp. 123-130.

of New Zealand. Is that Auckland? I said to myself, the far famed capital of the “Great Britain of the South sea?” Where is the New Zealand Thames? Where the steaming, seething geysers and boiling springs? Where are all the volcanic cones of which I had read, the ever - steaming Tongariro; the Ruapahu covered with perpetual snow and ice; the Taranaki rearing its lofty head to the very clouds; where the New Zealand Alps? The picture my imagination had created of New Zealand was quite different to that now presented to my view. The stupendous conical mountains in reality seemed to me shrunk up into little insignificant conical eruptions from 500 to 600 feet high.’¹⁷ He briefly describes his time in the country, and on the next page is worried that his negative first impression of Auckland might not go down too well. ‘Should my friends in Auckland require any further apology after this my candid avowal....I can only assure them that, as Auckland and New Zealand live in my memory at present, all my former expectations and anticipations have been surpassed by far, and should I live to be permitted second view of that panorama, and to greet Rangitoto, my heart would leap for joy.’ And indeed, there is a genuine enthusiasm throughout the work, that seems to match his reception by the New Zealanders. His liking for the country, and its natural history particularly, is carried over into his later European years. The books contain chapters on geography and palaeontology, minerals, gold, flora, kauri and harakeke, fauna, kiwi and moa, Māori, and the regions where he travelled, including a large part of the North Island, Nelson and the West Coast and the Southern Alps. The book was the most comprehensive study of New Zealand geology, geography and natural history at that time, particularly his geological maps of Auckland and Nelson, ‘establishing a tradition of systematic geological mapping.’¹⁸ The Geoscience Society of New Zealand has the Hochstetter Lecturer. His name pops up in geography and attached to organisms. In that regard, what is the Hochstetter’s frog? It is one (*Leiopelma hochstetteri*) of four rare and primitive New Zealand species of the Leiopelmatidae family.¹⁹ Hochstetter describes it,²⁰ with its first European ‘discovery’ in 1852; it was long known to Māori. Hochstetter took specimens back to Europe where they were taxonomically described by L J Fitzinger in 1862 in Vienna.



Hochstetter’s frog, image taken by Nick Harker, in the Waitakere Ranges, Auckland.

<https://www.reptiles.org.nz/herpetofauna/native/leiopelma-hochstetteri>

Back in Vienna, Hochstetter kept close contact with New Zealand. He corresponded with Haast for many years, including responding to a claim that Charles Heaphy had used Hochstetter’s geological map in a production of his own. Hochstetter in 1865 wrote ‘The last letters brought me Heaphy’s despicable actions...’²¹, though in the end it seemed a relatively minor issue, one of Heaphy using Hochstetter’s geological information to add to his own earlier map, without due acknowledgement.

In 1872, Hochstetter was President of the Austrian Imperial Geographical Society, undertaking surveys in the Urals and as far east as Siberia. His links with New Zealand came to the fore as a member of the Imperial Commission for the International Industrial

¹⁷ **Hochstetter, F. von** New Zealand, its physical geography, geology and natural history, with special reference to the results of Government expeditions in the provinces of Auckland and Nelson. Stuttgart, J.G Cotta, 1867. p. 5.

¹⁸ C A Fleming op. cit.

¹⁹ <https://www.reptiles.org.nz/herpetofauna/native/leiopelma-hochstetteri>

²⁰ Hochstetter, F von, op cit. pp. 163-164. (English 1867 edition)

²¹ p. 364.

Exhibition held in Vienna in 1873. There was a New Zealand Court, and Hochstetter assembled moa skeletons and four stuffed kiwis, 'The Wingless Birds of New Zealand, The Extinct Moas and the still living Kiwis, Exhibited by the Canterbury Museum in Christchurch N.Z., Dr Julius Haast Director' and the display, after a Hochstetter intervention, was eventually awarded a Medal of Merit.²² He published more than 20 papers on New Zealand between 1859 and 1875, and was a European leader and pioneer in geological engineering. He died in 1884, from diabetes and only 55, much lauded and honoured.



Georgiana von Hochstetter and her four children, 30 April 1867 by Heinrich Harmsen of Vienna. Alexander Turnbull Library, /records/23192000. Four more children were yet to come.

²² Ibid., p. 674.